CONTENTS

First edition published 2022
by CRC Press
6000 Broken Sound Parkway NW, Suite 300, Boca Raton, FL 33487-2742

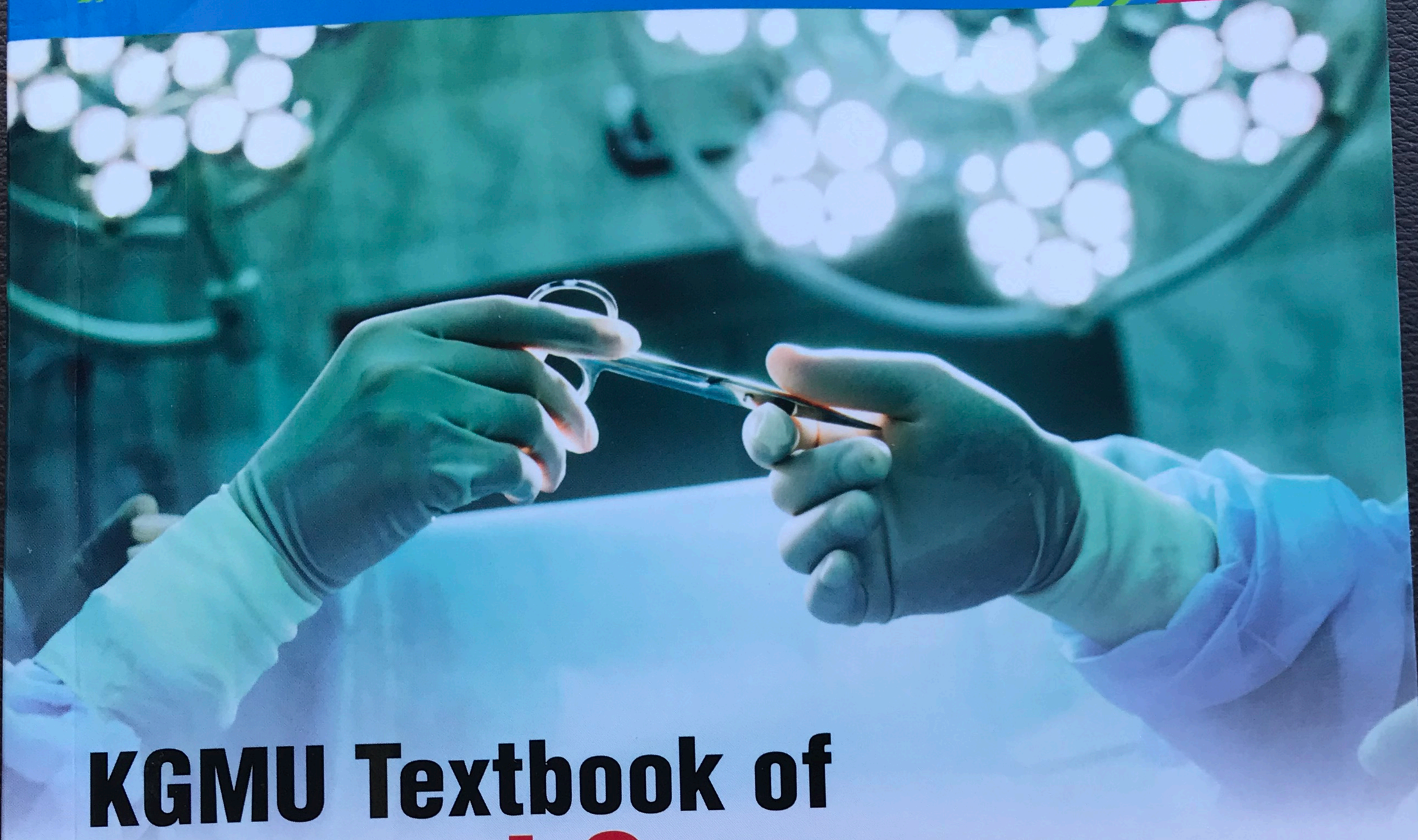
and by CRC Press
2 Park Square, Milton Park, Abingdon, Oxon, OX14 4RN

CRC Press is an imprint of Taylor & Francis Group, LLC

ISBN: 9780367186388 (hbk)
ISBN: 9781032136509 (pbk)
ISBN: 9780429197338 (ebk)

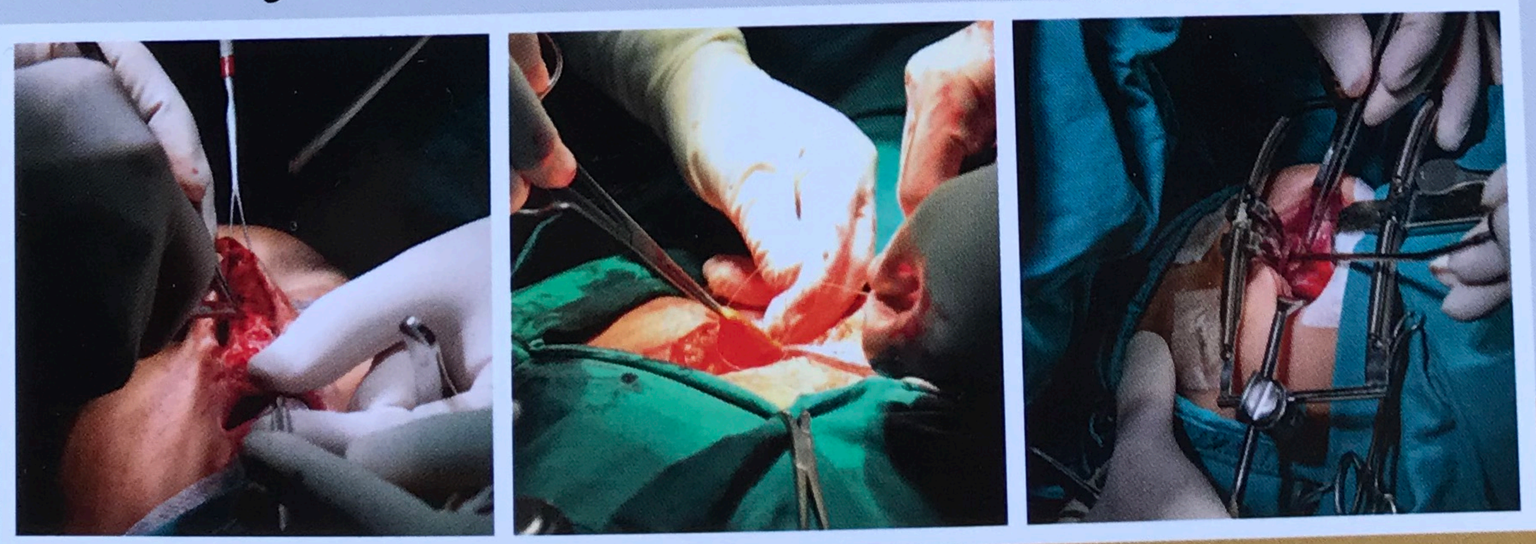
DOI: 10.1201/9780429197338

Includes interactive e-content at *Lippincott Gurukul*



KGMU Textbook of General Surgery for Dental Students

Theory and Practical



TC Goel • Apul Goel

Wolters Kluwer India

Wolters Kluwer

खण्ड – 2
(Vol. – 2)

आधुनिक शल्य वि
(Modern S
(शल्य विज्ञान की अधिविशिष्ट

टी. सी. गोयल

उत्त
लख

खण्ड – 1
(Vol. – 1)

आधुनिक शल्य विज्ञान
(Modern Surgery)
(शल्य विज्ञान की अधिविशिष्टताएं, Superspecialities)

टी. सी. गोयल • अपुल गोयल

उत्तर प्रदेश भाषा संस्थान
लखनऊ

VOLUME 15

SURGERY

Roshan Lall Gupta's

Recent Advances in SURGERY

Editor

Puneet

Textbook of Plastic, Reconstructive, and Aesthetic Surgery

Volume IV

Reconstruction of Trunk, Genitalia, Lower limb, and Maxillofacial Trauma

Editor-in-Chief
Karoon Agrawal

Section Editors
Karoon Agrawal
Ravi K. Mahajan

Assistant Section Editor
Mukund Gupta

Thieme

टी.यू.आर.पी.

दूरबीन विधि द्वारा प्रोस्टेट ग्रंथि का आपरेशन

डॉ. दिवाकर दलेला
डॉ. दीपांश दलेला

Auriel
a SUN PHARMA division

TIPS & TRICKS

For Differential Diagnosis and Management of

UAB

ISSUE 1: ◆ Diabetes and UAB ◆ Postoperative UAB

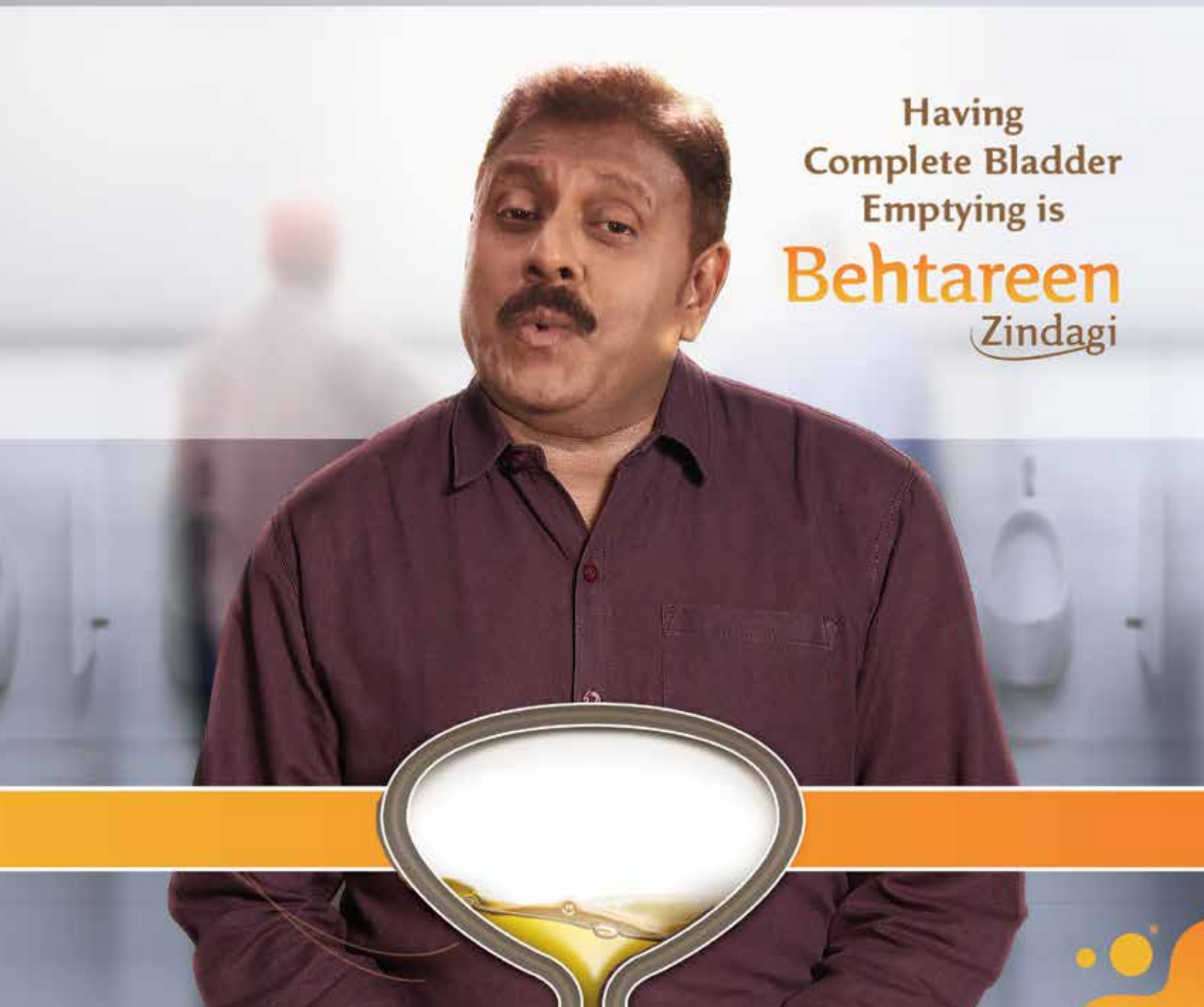
In Functional and Post Operative UAB

Rx

Betheran

Bethanechol Chloride 25mg Tablets

Active Bladder...Active Life...



Diagnosis and management of underactive bladder in a patient with uncontrolled diabetes mellitus

Dr Divakar Dalela
MS, M.Ch., FAMS, FICS,
Dept. of Urology, K.G.'s Medical University, Lucknow.

Background

Type 2 diabetes mellitus (T2DM) affects multiple organ systems of the body, including the urinary tract.[1] Lower urinary tract symptoms (LUTS) caused by diabetic neuropathy, referred to as diabetic cystopathy, is a well-recognized complication of DM.[2] As many as 75–100% of the patients with DM are reported to have urodynamic abnormalities.[1] Recent evidence indicates that diabetic cystopathy can manifest as a broad spectrum of lower urinary tract dysfunctions, ranging from detrusor overactivity and detrusor hyperreflexia/impaired contractility to detrusor underactivity and urethral dysfunction.[1] Given the huge clinical and psychosocial implications of this complication, early identification and management are the key for better prognosis.[1,3,4] Yet, owing to the difficulty in making an early diagnosis (Figure 1),[2,4,5] patients are often referred to urologists usually at the end-stage of the disease, when they have developed hydronephrosis or urinary retention.[1]

Figure 1: Challenges in the diagnosis of diabetic cystopathy[2,4,5]

- Patients with diabetes do not always present with the classic symptoms of bladder dysfunction *viz.,* impaired sensation of bladder fullness, increased bladder capacity, and reduced bladder contractility, with increased residual urine.
- Some patients may be asymptomatic or exhibit no obvious symptoms of abnormal micturition - **Chances of misiagnosis.**

- The presence of concomitant conditions, such as urinary tract infection, benign prostatic hyperplasia, and stress urinary incontinence, can add to the diagnostic challenge.
- In such cases, it is necessary to recognize the primary contributing factor from the complex presentation of symptoms in an individual patient.

- Diabetic cystopathy generally occurs in patients with long-standing and poorly controlled disease. However, it can also manifest insidiously and early during the disease course and, in these cases, is detected only after careful questioning and/or urodynamic testing.

Discussed next is a case of hypocontractile bladder in a patient with T2DM that was adequately treated with catheterization and oral bethanechol.

Case report

Case presentation

A 68-year-old male patient presented with inability to void and subsequent urinary retention since the last one month.

Medical history

The patient had a 15-year history of T2DM and hypertension, for which he was receiving telmisartan 40 mg once-daily and gliclazide 60 mg once-daily. Over the past year, he had gained approximately 8 kg weight. He had a sedentary lifestyle, and his dietary history revealed excessive carbohydrate intake. Also, he had not been instructed regarding self-monitoring of blood glucose. He had no history of surgeries or hospitalization and had been in overall good health for many years.

Physical examination

The patient's body mass index was 30.6 kg/m^2. He had bilateral pitting pedal edema. Other physical and systemic findings were unremarkable. Digital rectal examination (DRE) showed normal anal tone and grade I prostatomegaly.

Investigations

Laboratory tests showed elevated levels of blood glucose and glycated hemoglobin (Table 1).

Ultrasonography (USG)

USG of the whole abdomen indicated mild bilateral hydroureteronephrosis. Urinary bladder was over-distended, with low-level internal echo in the lumen with normal bladder wall. His prostate size was 21 cc. Post-void residual

Table 1: Laboratory test findings at presentation

Parameter	Finding	Normal range
Hemoglobin (g/dL)	9.5	13.8–17.2
Total WBC count (× 10^9/L)	7.9	4.5–11.0
Differential WBC count		
Polymorphs (%)	86	40–65
Lymphocytes (%)	10	20–40
Eosinophils (%)	0	1–4
Monocytes (%)	4	2–8
ESR		
Observed reading (mm in first hour)	38	≤15
Packed cell volume (cc%)	27.1	38.3–48.6
Corrected ESR (mm/h)	24	0–20
Platelet count (× 10^9/L)	225	150–450
Serum urea (mg/dL)	24.0	7–30
Serum creatinine (mg/dL)	0.7	0.5–1.4
Serum sodium (mEq/L)	132.0	135–146
Serum potassium (mEq/L)	3.2	3.5–5.3
Blood glucose (fasting) (mg/dL)	178	65–109
HbA1c (%)	8.1	4–6

ESR: Erythrocyte sedimentation rate; HbA1c: Glycated hemoglobin; WBC: White blood cell.

volume of urine in the bladder was 332 mL. Based on these USG findings, the patient was referred to a urologist.

Urologic examination

He had an over-distended bladder, with chronic retention of urine. His uroflow indicated voiding by abdominal straining. (Figure 2). The voiding cystometrography revealed low-pressure, low-flow voiding with straining (Figure 3).

Diagnosis

The patient was suspected to have diabetic cystopathy due to T2DM.

Figure 2: Uroflowmetry showing voiding with abdominal straining

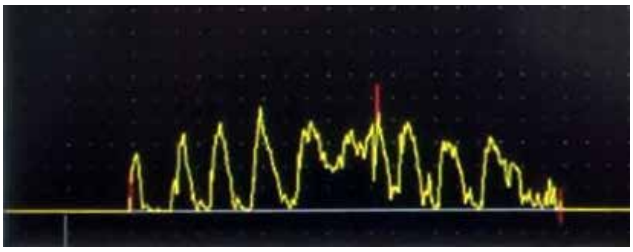
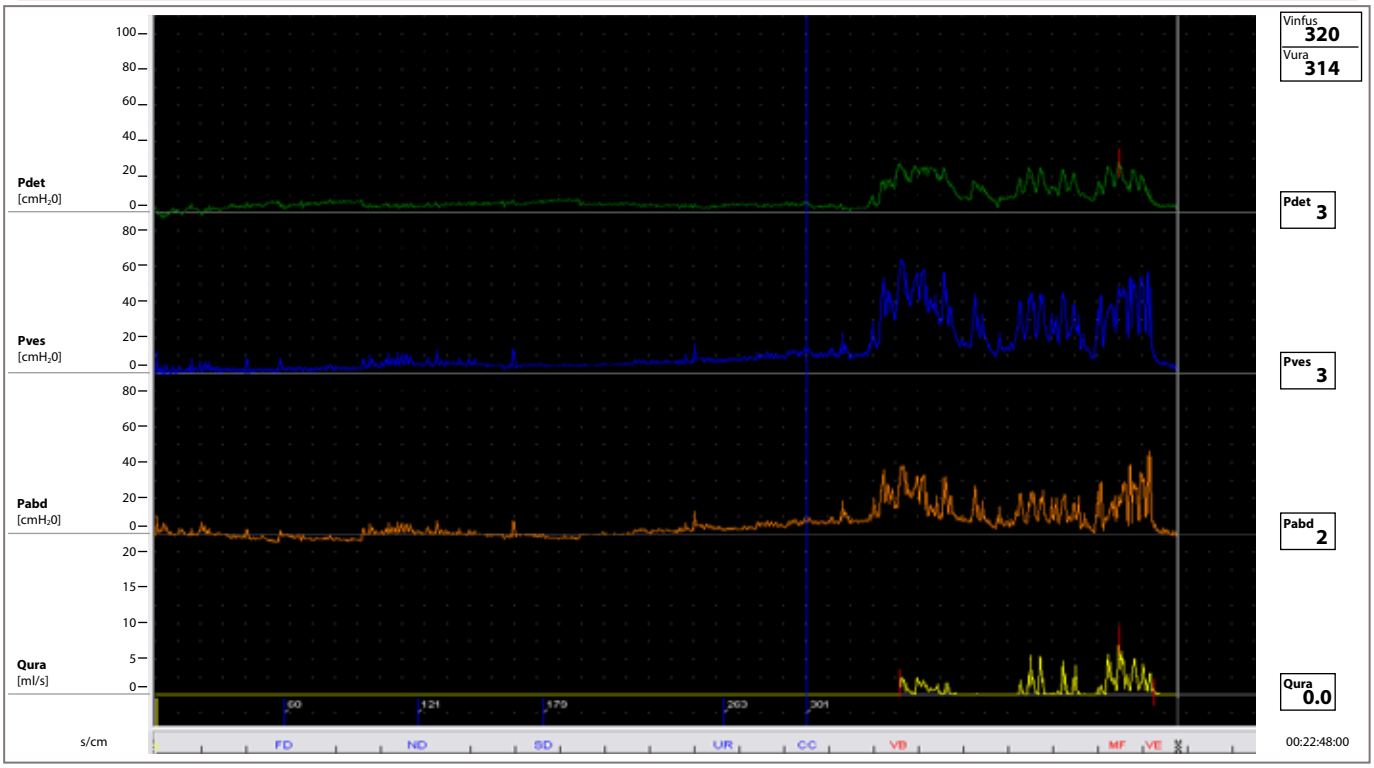


Figure 3: Cystometrogram showing low-pressure, low-flow voiding



Management and outcome

- He was catheterized with an indwelling catheter and was started on oral treatment with tamsulosin hydrochloride MR 0.4 mg, dutasteride 0.5 mg once-daily, and bethanechol 25 mg twice-daily.
- To achieve glycemic control, he was prescribed metformin 500 mg twice a day as an add-on antidiabetic drug. He was also thoroughly counselled about the need for lifestyle modifications, including weight loss, physical activity, and dietary control.
- After 10 days of therapy, a voiding trial was done, during which he was able to void without the use of the catheter. The patient was advised to continue with the initially prescribed treatments, along with intermittent self-catheterization, thrice-daily.
- At follow-up after about 6 weeks, he was able to feel the urge to pass urine, without any discomfort. He reduced his self-catheterization frequency to twice-daily.
- Three months after treatment initiation, the patient was asymptomatic, catheter-free, and was able to pass urine with normal urge and ease. Follow-up USG showed significant improvement in the upper tract status, with a reduction in post-void residual volume from 332 mL to 49 mL.

Discussion

Complete recovery from bladder dysfunction in patients with T2DM is uncommon.[5] Hence, management is directed towards relief of symptoms, prevention and treatment of urinary tract infections, conservation of upper urinary tract, and adequate bladder emptying in a timely manner.[2,5] Patients in the early stage of cystopathy may benefit from noninvasive strategies, including lifestyle modifications like weight reduction, diet changes, assessing the amount and timing of fluid intake, and bladder and pelvic muscle training.[2] It is also important for clinicians to emphasize the need for better glucose control, as hyperglycemia has been shown to independently contribute to the pathogenesis of bladder dysfunction in diabetes.[2,6] Other measures include improving blood pressure control and encouraging smoking cessation.[2] Pharmacotherapy for diabetic neurogenic bladder is aimed at decreasing or increasing detrusor activity, and/or increasing or decreasing bladder outlet resistance. Parasympathomimetic drugs such as bethanechol have been used to stimulate detrusor muscle in patients with detrusor underactivity. These agents act by stimulating the autonomic effector cells and postganglionic parasympathetic receptors, thereby increasing intravesical pressure and decreasing the bladder capacity. Administration of bethanechol (10–20 mg orally three to four times a day) may be an effective therapeutic option in patients with consistent residual volumes of over 100 mL but not exceeding 500 mL. This drug exerts relatively selective effects on the urinary bladder and has also been used to enhance reflex bladder contraction in patients with suprasacral spinal cord injury.[2]

This patient had developed hypocontractile bladder with low-pressure, low-flow voiding dysfunction. He was having poorly controlled T2DM, which, along with concurrent factors like benign prostatic hyperplasia and aging, may have contributed to the voiding dysfunction. As he had no early LUTS, he was referred only in the later stage of the disease. Catheterization and oral administration of bethanechol were found to be effective in facilitating urine evacuation and relieving his symptoms.

Practice pearls

- **Diabetic cystopathy is a progressive complication of diabetes mellitus, with varied clinical presentations and profound effects on the quality of life of patients. Early identification and management of these patients could help to improve the prognosis.**
- **In addition to catheterization (continuous or intermittent), oral bethanechol may facilitate bladder evacuation and alleviate the voiding dysfunction in patients with diabetic cystopathy.**

References

1. *Majima T, Matsukawa Y, Funahashi Y, et al. Urodynamic analysis of the impact of diabetes mellitus on bladder function. Int J Urol. 2019;26(6):618-22.*
2. *Golbidi S, Laher I. Bladder dysfunction in diabetes mellitus. Front Pharmacol. 2010;1:136. Doi: 10.3389/fphar.2010.00136*
3. *Barua SK, Borah SJ, Rajeev TP. Current understanding of diabetes mellitus-induced lower urinary tract dysfunction. J Health Res Rev. 2019;6(2):50-56.*
4. *Xu L, Chen X, Yuan X, et al. Case report of diabetic neurogenic bladder misdiagnosed as adnexal mass. Int J Clin Exp Med. 2020;13(5):3637-39.*
5. *Miyazato M, Yoshimura N, Chancellor MB. The other bladder syndrome: Underactive bladder. Rev Urol. 2013;15(1):11-22.*
6. *Liu G, Daneshgari F. Diabetic bladder dysfunction. Chin Med J (Engl). 2014;127(7):1357-64.*

A case of post-surgical UAB successfully managed with bethanechol

Dr. Prem Kumar
MS (Surgery), DNB (Surgery), DNB (Urology),
Consultant Urologist and Urooncologist.
Ranchi Urology Centre, Ranchi.

Background

Postoperative urinary retention (POUR) is commonly reported after urogynecological surgery, particularly with surgical interventions for urinary incontinence and pelvic organ prolapse. The estimated incidence of POUR after pelvic surgery ranges from 2.5% to as high as 43%. Currently, standard definition for POUR is lacking; the term broadly refers to impaired postoperative bladder emptying, with an increase in post-void residual (PVR) volume.[1]

Early identification of POUR is crucial for its successful management. While this complication may occur after any surgery, the risk is relatively higher after gynecologic and anorectal surgeries, possibly due to postoperative pain as well as peripheral neuropathy. Use of medications for pain can aggravate bladder dysfunction and increase the risk of POUR. Increased use of opioid analgesics is associated with a nearly 1.5-fold higher risk of POUR.[1] Important risk factors for POUR are presented in Figure 1.

Case report

Described herein is a case of underactive bladder (UAB) after transurethral resection of the prostate (TURP) that was effectively managed using bethanechol.

Case presentation

A 65-year-old male patient presented with progressively worsening lower urinary tract symptoms (LUTS) and deteriorating urinary obstruction since the past one year.

Medical history

- The patient was diagnosed with LUTS for over five years, for which he was taking oral silodosin, 8 mg once-daily.
- He had no other notable comorbidity.

Examination and investigations

- His prostate size was around 40 g.
- Serum prostate-specific antigen (PSA) was within normal limits.

Surgical intervention and development of postoperative UAB

- As the patient had severe obstructive symptoms, he underwent bipolar TURP.
- Post-surgery, he developed hematuria, which was managed by bladder wash and subsequent cystoscopy/clot evacuation on postoperative day 3.
- His catheter was removed four days later. However, he failed to void and experienced mild abdominal discomfort. Hence, he was recatheterized. His PVR volume at that time was ~600 mL.
- On removal of his catheter after 10 days, he voided with good flow initially, but his flow began to decrease over the next few days.

Figure 1: Important risk factors for POUR[1]

Patient-related factors		Surgery-related factors	
• Age >50 years	• Baseline bladder dysfunction	• Pelvic surgery (gynecologic and colorectal)	• Estimated blood loss >100 mL
• Female sex	• Advanced pelvic organ prolapse	• Intraoperative fluid administration >750 mL	• Postoperative opioid use
• Lower body mass index	• Previous incontinence surgery	• Spinal anesthesia	• Postoperative UTI

POUR: Postoperative urinary retention; UTI: Urinary tract infection.

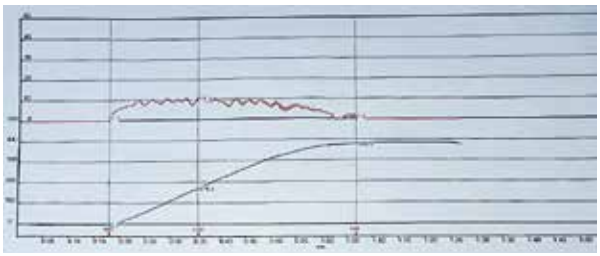
- Two weeks later, he underwent urodynamic testing, which was suggestive of hypocontractile urinary bladder (bladder outlet obstruction index: 32; bladder contractility index: 86).

Subsequent management and outcome

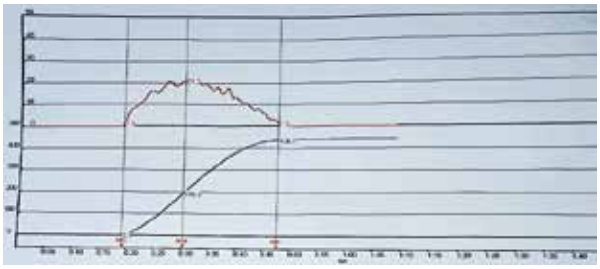
- The patient was started on oral bethanechol 25 mg thrice-daily. Additionally, he was advised to reduce his fluid intake and practice timed voiding/double voiding.
- His voiding parameters gradually improved, as indicated by results of uroflowmetry and cystometry (Figures 2 and 3). His symptoms ameliorated, and there was improvement in his overall quality of life.
- He will be gradually tapered off from bethanechol treatment.

Figure 2: Uroflowmetry results (A) pre- and (B) post-treatment with bethanechol

(A)

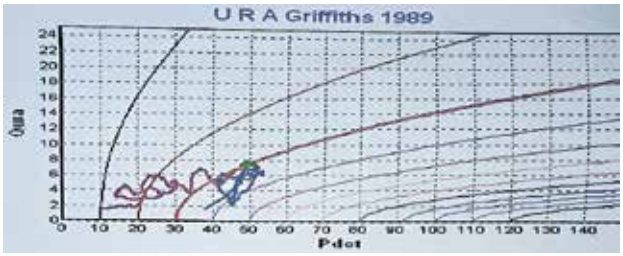


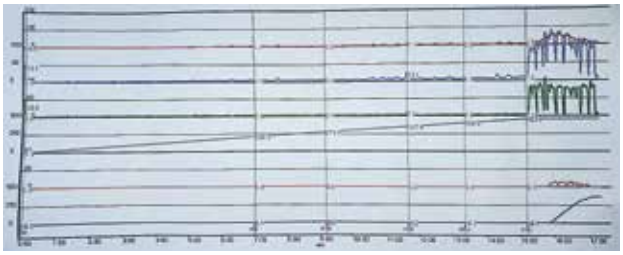
(B)



Parameter	Finding	
	(A) Pre-treatment	(B) Post-treatment
Flow rate		
Average (mL/s)	7.4	13.8
Maximum (mL/s)	11.0	21.3
Flow at 2 seconds (mL/s)	6.2	8.9
Acceleration (mL/s^2)	0.6	1.9
Time to maximum flow (s)	17.6	11.1
Total volume (mL)	380.2	433.8
Flow time (s)	46.2	28.3
Voiding time (s)	48.4	28.3
Voiding delay (s)	18.0	19.3

Figure 3: Voiding cystometry results post-bethanechol treatment





Parameter	Finding
Open pressure (cmH_2O)	37.1
Close pressure (cmH_2O)	9.8
Maximum pressure (cmH_2O)	53.9
Mean pressure (cmH_2O)	37.2
Maximum flow (mL/s)	7.4
Pressure at peak flow (cmH_2O)	49.4
Calculated post-void residual volume (mL)	86.7

Discussion

Acontractile bladder secondary to persistent bladder outlet obstruction is not uncommon. In many cases, acontractile bladder develops following prostate surgery in patients with no known risk factors such as long-standing diabetes mellitus, neurological disorders, etc. The probable cause in these cases is intrinsic detrusor dysfunction (myogenic failure) after withstanding prolonged outlet obstruction.[2]

A study evaluating changes in bladder contractility after TURP reported a substantial increase in maximum urine flow rate after the surgery in most patients. This was often associated with a decrease, and occasionally with an increase in bladder contractility. The authors suggested that these two findings may arise from adaptation of compensated bladder outlet relation and spontaneous recovery of reversible balder damage (stunning), respectively.[3]

Patients with reversible bladder damage usually benefit from catheterization for a longer duration and with oral bethanechol therapy. Bethanechol, a muscarinic cholinergic receptor agonist, can assist to increase contractility in these patients, although the optimal dose and duration of therapy are not clearly defined. In addition, it is important for these patients to simultaneously follow restricted fluid intake, timed voiding, and double voiding. Few patients tend to develop recurrent urinary retention over a few months following surgery, which can be resolved by catheterization and use of bethanechol.

In the present case, bethanechol therapy was associated with considerable improvements in the patient's voiding parameters, leading to a decrease in obstructive symptoms and improved overall quality of life.

Clinical evidence on bethanechol therapy for POUR

- Treatment with bethanechol chloride, compared to placebo, has been shown to decrease the duration of urethral catheterization after type III radical hysterectomy; the drug has an overall benign side-effect profile.
- Hence, early use of bethanechol is suggested during the postoperative period for the prophylaxis of bladder dysfunction in these patients.[4]

- Delayed initiation of bethanechol therapy i.e., 10 days after surgery, has been linked to prolonged bladder dysfunction and consequently longer hospital stay.[5]

- A prospective trial demonstrated that administration of bethanechol after anal surgery performed under spinal anesthesia was associated with reduced need for catheterization as compared to the control group. Thus, this drug may be useful for attenuating POUR.[6]

Practice pearls

- **Acontractile bladder is a common complication of prostate surgery and can occur even in patients with no known risk factors.**
- **Reversible postoperative bladder damage can be treated by catheterization for a longer period and administration of oral bethanechol.**
- **Bethanechol can help to increase bladder contractility and may serve as a useful drug for ameliorating postoperative urinary retention.**

References

1. *Geller EJ. Prevention and management of postoperative urinary retention after urogynecologic surgery. Int J Womens Health. 2014;6:829-38.*
2. *Aizawa N, Igawa Y. Pathophysiology of the underactive bladder. Investig Clin Urol. 2017;58(Suppl 2):S82-S89.*
3. *de Zeeuw S, Groen J, Boevé ER, et al. Changes in bladder contractility after transurethral resection of the prostate. Presented at the International Continence Society (ICS)/ International Urogynecological Association (IUGA) 2010 Annual Scientific Meeting, Toronto; 2010 August 23–27. Abstract no. 201.*
4. *Manchana T, Prasartsakulchai C. Bethanechol chloride for the prevention of bladder dysfunction after radical hysterectomy in gynecologic cancer patients: A randomized controlled trial study. Int J Gynecol Cancer. 2011;21(4):730-36.*
5. *Kemp B, Kitschke HJ, Goetz M, et al. Prophylaxis and treatment of bladder dysfunction after Wertheim-Meigs operation: The positive effect of early postoperative detrusor stimulation using the cholinergic drug betanecholchloride. Int Urogynecol J Pelvic Floor Dysfunct. 1997;8(3):138-41.*
6. *Uy BJ, Yu BA, Torillo MR, et al. Bethanechol chloride for the prevention of postoperative urinary retention after anal surgery under spinal anesthesia. Philipp J Surg Spec. 2011;66(2):68-73.*

Noninvasive diagnostic testing for detrusor underactivity: Japanese Continence Society Consensus Report

(Source: Yoshida M, Sekido N, Matsukawa Y, Yono M, Yamaguchi O. Clinical diagnostic criteria for detrusor underactivity: A report from the Japanese continence society working group on underactive bladder. Low Urin Tract Symptoms. 2021;13(1):13-16.)

Detrusor underactivity (DU), a common bladder dysfunction, causes lower urinary tract symptoms (LUTS) in men and women. DU has been reported in 9–28% men aged <50 years, 48% in older men aged >70 years, and in 12–45% of women aged >70 years.

Current challenges in the diagnosis and management of detrusor underactivity

Underactive bladder (UAB) is regarded as the symptom-based correlate of DU. The International Continence Society (ICS) defines UAB symptom complex as **"A symptom syndrome suggestive of DU and characterized by a slow urinary stream, hesitancy and straining to void, with or without a feeling of incomplete bladder emptying and dribbling, often with storage symptoms."** The current challenges in respect of diagnosis and management of DU are as under:

- The epidemiology of DU and UAB is not well delineated due to uncertainty in its definition, the lack of an accurate and easily measurable proxy, and the lack of noninvasive diagnostics tests for DU.
- Currently, DU is diagnosed only by the invasive urodynamic test (pressure-flow studies). These tests cannot be used routinely.
- DU is one of the causes of UAB. Overlapping of symptoms such as hesitancy, straining to void, and a slow urinary stream is reported in patients with DU and bladder outlet obstruction (BOO). This makes their differentiation difficult.
- As UAB symptom complex is not specific for DU, it may pose difficulties in determining a therapeutic target (DU or BOO) in the initial management of UAB.

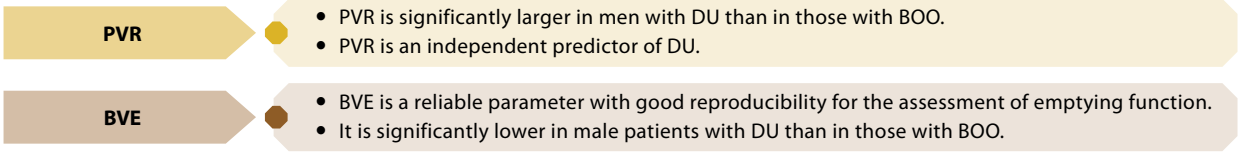
Detrusor underactivity or bladder outlet obstruction?

- Symptoms of UAB such as hesitancy, straining to void, and a slow urinary stream are noted in both BOO and DU.
- In patients with DU, the symptoms related to storage, voiding, and post-micturition are predominant.
- Storage symptoms such as nocturia, increased daytime frequency, reduced sensation of filling, and incontinence are often related to a significant post-voiding residual urine volume (PVR).
- Of these storage symptoms, reduced sensation of filling is particularly important because patients with DU often experience impaired bladder sensation.

Detrusor underactivity: Clinical diagnostic criteria

- Noninvasive diagnostic parameters for DU are summarized in Figure 1. These are clinical predictors of DU, which help in differentiating DU from BOO. The cut-off values of predictors were determined on the basis of expert opinion as well as by considering evidence from the relevant literature.
- The proposed criteria for diagnosis of DU in men and women are presented in Box 1.

Figure 1: Noninvasive diagnostic parameters for DU



Continued on next page

Continued from previous page

Urinary flow rate	• Maximum flow rate (Qmax) is significantly lower in patients with DU than in those with BOO.
IPP in men	• Lower IPP is a significant predictor of DU, which can provide high diagnostic. accuracy with sensitivity of 77% and a specificity of 73% in patients with DU and BOO with a optimal cut-off value of 8.2 mm.
PV in men	• PV correlates significantly with the degree of BOO and is a predictor of DU. • Smaller PV (< 30 mL) is a significant predictive factor for DU.
Pelvic organ prolapse in women	• BOO occurs in only 2.7% of the women with LUTS in the secondary care. • Cystocele often causes BOO in women. • Other causes include post-incontinence surgery, BOO, urethral stricture, pelvic organ prolapse, urethral diverticula, and gynecological pelvic masses.
Waveform on uroflowmetry	• Incidence of a saw-tooth and interrupted waveform is significantly higher in DU (80%) than in BOO (12.8%). • Interrupted waveform is a significant predictive factor for DU, with both high sensitivity (80%) and specificity (87.2%) in differentiating DU from BOO. • DeltaQ is a novel predictor capable of discriminating DU from BOO in men with voiding symptoms. Decrease in DeltaQ forms flatter waveforms of urinary flow tracing.

DU: Detrusor underactivity; PVR: Post-voiding residual urine volume; BVE: Bladder voiding efficiency; BOO: Bladder outlet obstruction; IPP: Intravesical prostatic protrusion; PV: Prostate volume; LUTS: Lower urinary tract symptoms.

Box 1: Clinical diagnostic criteria for detrusor underactivity

- **Symptom complex of UAB** (especially the voiding symptoms of slow stream, hesitancy and straining to void, and often reduced sensation of filling)
- **Maximum flow rate <12 mL/s; PVR >100 mL**
- **BVE <90%**
- **Men: IPP <10 mm and/or PV <30 mL; Women: Absence of significant POP (cystocele ≤grade II)**

UAB: Underactive bladder; PVR: Post-voiding residual urine volume; BVE: Bladder voiding efficiency; IPP: Intravesical prostatic protrusion; PV: Prostate volume; POP: Pelvic organ prolapse.

Practice pearls

- **Use of the noninvasive diagnostic predictors along with clinical symptoms to differentiate between DU and BOO will help in initiating appropriate treatment for the condition.**
- **These can also be used for evaluation of newer drugs for these conditions.**

In Functional and Post Operative UAB

Rx Betheran

Bethanechol Chloride 25mg Tablets

Active Bladder...Active Life...

- Increases detrusor pressure with maximum flow rate
- Significant reduction of residual urine volume
- Improves the function of acontractile detrusor muscles

Quality Product from the house of Sun Pharma

Auriel
a SUN PHARMA division

References: Riedl CR et al. Neurourol Urodyn 2002;21:376.

8368614 JC230197

For the use of a Registered Medical Practitioner or a Hospital or a Laboratory only.

Auriel

a SUN PHARMA division

Female Bladder Outlet Obstruction and Urethral Reconstruction

Nikhil Khattar
Rishi Nayyar
Arabind Panda
Editors

Springer

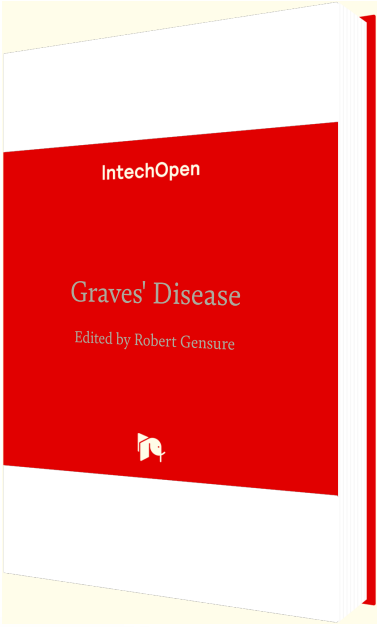
List of contributors

1. **Ankit Singla**,MS
   NU Hospitals, Bengaluru, Karnataka, India
   doc.ankitsingla@gmail.com
2. **Arabind Panda,** MS, M.Ch
   Senior Consultant
   Urology and Renal Transplantation
   (Formerly Professor of Urology, Christian Medical College, Vellore)
   Krishna Institute of Medical sciences, Secunderabad, Telangana, India
   arabindpanda@gmail.com
3. **Bharti Uppal Nayyar**, MS
   Fellow Urogynecology, Department of Obstetrics and Gynecology,
   All India Institute of Medical Sciences, New Delhi. India. *bhartiuppal@gmail.com*
4. **Devanshu Bansal**, MS, M.Ch
   Ex-Senior Resident, Department of Urology,
   All India Institute of Medical Sciences, New Delhi. India. *db.golem@gmail.com*
5. **Divakar Dalela,** MS, M.Ch
   Professor of Urology
   King George Medical University, Lucknow, India
   drdalela24@gmail.com
6. **Ganesh Gopalakrishnan.** M.S., M.Ch, FAMS, FRCP
   Senior consultant and Head
   (Former Prof and Head Dept of Urology, Christian Medical College, Vellore)
   Department of Urology
   Vedanayagam Hospital and Postgraduate Institute , Coimbatore, Tamil Nadu, India
   gopalakrishnanganesh@gmail.com
7. **Hemant Kumar Goel,** MS, M.Ch
   Associate Professor
   Department of Urology, Dr Ram Manohar Lohia Hospital and ABVIMS, New Delhi, India
   hemant.doc81@gmai.com
8. **L.N. Dorairajan,** MS, M.Ch
   Professor and Head
   Department of Urology, JIPMER, Puducherry, India
   dorairajan_ln@hotmail.com
9. **Manasa T**, MS, M.Ch
   Assistant Professor of Urology,
   MS Ramaiah Medical College, Bengaluru, India
   manasat7@gmail.com
10. **Maneesh Sinha,** MS, M.Ch, DNB (Urology)
    Head, Department of Urology
    NU Hospitals, Bengaluru, India
    dr.maneesh@nuhospitals.com
11. **Mayank Mohan Agarwal,** MS, M.Ch
    Associate Director, Urology and Kidney transplant surgery, Medanta Hospital Lucknow, Uttar Pradesh, India
    drmayank.22@gmail.com
12. **Nikhil Khattar,** MS, M.Ch
    Associate Director, Female and Reconstructive Urology
    (Formerly Professor of Urology, Dr Ram Manohar Lohia Hospital and ABVIMS, New Delhi)
    Medanta, The Medicity, Gurugram, India
    drkhattar@gmail.com
13. **Niraj Kumar**, MS, M.Ch
    Assistant Professor of Urology
    Department of Urology, VM Medical College and Safdarjung Hospital, New Delhi, India
    drniraj79@gmail.com
14. **Prasant Nayak**, MS, M.Ch
    Additional Professor and Head
    Department of Urology , All India Institute of Medical Sciences Bhubaneswar, Odisha, India
    prasantnyk@gmail.com
15. **Prashant Kumar**, MS, MCh
    Fellow Reconstructive Urology, Department of Urology,
    All India Institute of Medical Sciences, New Delhi. India. *prashant.su@gmail.com*
16. **Pawan Vasudeva,** MS, M.Ch
    Professor of Urology
    Department of Urology, VM Medical College and Safdarjung Hospital, New Delhi, India
    drpawanvasudeva@gmail.com
17. **Rishi Nayyar**, MS, MCh, FMAS, FIMSA, MAMS
    Associate Professor, Department of Urology,
    All India Institute of Medical Sciences, New Delhi. India *nayyarrishi@gmail.com*
18. **Ravi Lohani**
    Department of Urology, King George Medical University, Lucknow, India
    ravi_lohani@yahoo.com
19. **S.B.Viswaroop.** M.S., M.Ch
    Senior Consultant
    Vedanayagam Hospital and Postgraduate Institute, Coimbatore, Tamil Nadu, India
    drviswaroop@gmail.com
20. **Sidhartha Kalra,** MS, M.Ch
    Assistant Professor of Urology
    JIPMER, Puducherry, India
    sid6121984@gmail.com
21. **Sanjay Sinha,** MS, M.Ch
    Honorary Professor, Apollo Hospital Education and Research Foundation
    Consultant Urologist and Transplant Surgeon,
    Apollo Hospital, Hyderabad, India
    drsanjaysinha@hotmail.com
22. **Swarnendu Mandal**
    Assistant Professor of Urology
    All India Institute of Medical Sciences Bhubaneswar, Odisha, India
    urol_swarnendu@aiimsbhubaneswar.edu.in
23. **Varun Katiyar**, MS
    Department of Urology, Dr Ram Manohar Lohia Hospital and ABVIMS, New Delhi, India
    varunkatiyar21@gmail.com
24. **Varun Gunavanthe,** MS, M.Ch
    Department of Urology, Bombay Hospital, Mumbai, India
    varunuro@gmail.com
25. **Venkatesh Krishnamoorthy,** MS, M.Ch, FRCS
    Chairman, Department of Urology
    NU Hospitals, Bengaluru, India
    dr.venkatesh@nuhospitals.com
26. **Vijay Madduri,** MS, M.Ch
    Assistant Professor of Urology
    Department of Urology, All India Institute of Medical Sciences, Jodhpur, India
    mvksarma@outlook.com

OPEN ACCESS PEER-REVIEWED EDITED VOLUME

Graves' Disease

View Chapters Share Cite



ACADEMIC EDITOR

Robert Gensure
Tufts Medical Center

PUBLISHED
December 1st, 2021

DOI
10.5772/intechopen.91498

ISBN
978-1-83968-774-7

PRINT ISBN
978-1-83968-773-0

EBOOK (PDF) ISBN
978-1-83968-775-4

COPYRIGHT YEAR
2021

NUMBER OF PAGES
312

Graves' disease is caused by autoantibodies to the thyroid gland that mimic thyroid-stimulating hormone, causing the gland to overproduce thyroid hormone. This speeds the metabolism of the patient and can lead to dangerous conditions including atrial fibrillation and heart failure. Mainstays of treatment have included antithyroid medication, surgical removal of the thyroid gland, and more recently...

READ MORE

Table of Contents

OPEN ACCESS PEER-REVIEWED CHAPTERS

PLOS ONE

RESEARCH ARTICLE

Emergence of blaNDM-1 and blaVIM producing Gram-negative bacilli in ventilator-associated pneumonia at AMR Surveillance Regional Reference Laboratory in India

Mithlesh Kumari[1☯], Sheetal Verma[1☯*], Vimala Venkatesh[1‡], Prashant Gupta[1‡], Piyush Tripathi[1‡], Avinash Agarwal[2‡], Suhail Sarwar Siddiqui[2‡], Zia Arshad[3‡], Ved Prakash[4‡]

1 Department of Microbiology, King George's Medical University, Lucknow, Uttar Pradesh, India, **2** Department of Critical Care Medicine, King George's Medical University, Lucknow, Uttar Pradesh, India, **3** Department of Anesthesiology & Critical Care, King George's Medical University, Lucknow, Uttar Pradesh, India, **4** Department of Pulmonary & Critical Care Medicine, King George's Medical University, Lucknow, Uttar Pradesh, India

☯ These authors contributed equally to this work.
‡ These authors also contributed equally to this work.
* dr.sheetal2001@gmail.com

Citation: Kumari M, Verma S, Venkatesh V, Gupta P, Tripathi P, Agarwal A, et al. (2021) Emergence of blaNDM-1 and blaVIM producing Gram-negative bacilli in ventilator-associated pneumonia at AMR Surveillance Regional Reference Laboratory in India. PLoS ONE 16(9): e0256308. https://doi.org/10.1371/journal.pone.0256308

Editor: Abdelazeem Mohamed Algammal, Suez Canal University, EGYPT

Received: April 15, 2021

Accepted: August 3, 2021

Published: September 8, 2021

Data Availability Statement: Data Availability statement are in Supporting Information (Supplementary 1).

Funding: The author(s) received no specific funding for this work.

Competing interests: The authors have declared that no competing interests exist.

Abstract

Introduction

Ventilator-associated pneumonia (VAP) may be a life threatening nosocomial infection encountered in intensive care units. Currently the emergence of carbapenem-resistant Gram-negative pathogens has become worrisome threat worldwide.

Material and methods

Endotracheal aspirates samples were collected from patients who were under mechanical ventilation for > 48 h. The bacterial isolates were identified by MALDI-TOF-MS and antibiotic susceptibility testing performed. All carbapenem resistant isolates were tested by Modified Hodge test (MHT), modified carbapenem inactivation method (mCIM), and EDTA-CIM (eCIM) and PCR were performed to detect blaIMP, blaVIM and blaNDM producing MBL genes.

Results

VAP occurred in 172/353(48.7%), 23.3% had early-onset VAP and 76.7% had late-onset VAP. Males (69.2%) were found to suffer more from VAP. Prior antibiotic therapy, CPI>6, prior surgery and tracheostomy were associated with VAP. The mortality in VAP (58.1%) contrasted with non-VAP (40%). 99/169 (58.6%) Gram-negative isolates were resistant to carbapenems. *Acinetobacter baumannii*, *Pseudomonas aeruginosa* and *Klebsiella pneumoniae* were common pathogens found in late onset VAP, whereas K. pneumoniae, *A. baumannii* and *Staphylococcus aureus* were common in early onset VAP. The PCR results

detected blaNDM in 37/172(21.5%) and blaVIM in 30/172(17.4%); 15/172(8.7%) isolates carried both genes.

Conclusion

The blaNDM-1 and blaVIM genes are the main antibiotic-resistance genes that induce resistance patterns to carbapenems in VAP, highlighting CRE strains of potential public health concern and therapeutic challenge. Diagnostic laboratories in India must get on high caution for early MBL detection as it may limit the wide dispersal of MBL genes.

Introduction

Ventilator-associated pneumonia (VAP) is one of the life-threatening nosocomial infections in intensive care units (ICUs) worldwide and accounts for 25% of all ICU infections [1]. VAP is estimated to occur in 9–27% of all mechanically ventilated patients, with the highest risk being early in the course of hospitalization. It is associated with longer hospital-stay, prolonged antibiotic usage, and increased cost of treatment, higher morbidity and with an estimated attributable mortality of 13% [2]. VAP is usually classified as either early onset, occurring within the first four days of mechanical-ventilation (MV) or late onset, developing five or more days after initiation of MV. Successful treatment of patients with VAP is a difficult and complex undertaking [3].

Microorganisms responsible for VAP differ according to the geographic areas, duration of mechanical ventilation, antibiotic dose, ventilator days, duration of ICU stay and specific patient characteristics. A number of studies have shown that Enterobacteriaceae, non-fermenters and *Staphylococcus aureus* are causative agents of VAP [1,4]. The etiology of VAP pathogens are changing over the past years, therefore early detection of pathogens and knowledge of sensitivity patterns are very crucial for better patient outcomes [5]. There is an increasing evidence of emergence of multidrug-resistant (MDR) pathogens due to extended spectrum beta (β)-lactamases (ESBL), AmpC β-lactamases (AmpC) or metallo-β-lactamases (MBLs) [6].

Carbapenemases include three types: class A (bla_{KPC}, bla_{GES} and bla_{IMI}), class B (bla_{NDM}, bla_{IMP}, bla_{VIM}, and bla_{SIM}) and class D ($bla_{OXA\text{-}48}$ like). Recently, treatment of VAP has become challenging due to emergence of class B MBLs that have a broad range, potent carbapenemase activity and resistance to all β-lactam antibiotics but not to monobactams [7]. Development of accurate methods for the early detection of carbapenem resistant bacteria is required not only for therapy but also to monitor the spread of resistant bacteria or resistance genes in hospitals and community [8]. The multidrug resistance has been increased globally that is considered a public health threat. Several previous studies revealed the emergence of multidrug-resistant bacterial pathogens from different origins especially birds, animals, fish, and food chain which may transmitted to the human consumers resulting in severe illness [9–13].

The characterization of underlying mechanisms leading to carbapenem resistance of clinical isolates in VAP is not undertaken by most clinical microbiology laboratories for therapeutic decision-making. There is paucity of data addressing microbiological aspects particularly of MBL-producing Gram-negative bacilli among VAP patients in India. This study aimed to investigate the clinicomicrobiological profiling, antibiogram and metallo-β-lactamases (MBLs) production in VAP infections with their subsequent outcome.

Material and methods

Study site and design

A prospective hospital-based cross sectional study was conducted over a period of one year from June 2019 to May 2020 in the Department of Microbiology, Critical Care Unit (CCU), Pulmonary Critical Care Unit (PCCU) Critical Care Units and Trauma Ventilatory Unit (TVU) at King George's Medical University in Lucknow, India. The bacteriology laboratory of the Microbiology department is an Antimicrobial Resistance Surveillance Regional Reference Laboratory in India.

Ethical approval

This study was approved by the King George's Medical University U.P., Institutional Ethics Committee (Ref. code: 97th ECM II B-Thesis/P89 dated 29-07-19) and written informed consent was obtained from patients' attendants'.

Sample size

Existing literature from Indian studies suggests an incidence of VAP ranging from 13–42%, and is highly variable in different regions. The sample size (n) is calculated according to the formula: n = z2 X P (1-p)/d2. Where: z = 1.96 for a confidence level (α) of 95%, p = proportion (0.4) and d = 0.06.

Study subjects

We enrolled patients based on National Healthcare Safety Network's (NHSN) new classification definition [14] for VAP, minimum 48 h on mechanical ventilation with radiologic criteria (≥2 serial radiographs with at least one of the following: new or progressive infiltrate, consolidation or cavitation), systemic criteria with at least one of the following: fever (>38˚C or >100.4˚F), leukopenia (<4000 white blood cell/mm3) or leukocytosis (≥12,000 white blood cell/mm3) and for adults ≥70 years old, altered mental status with no other recognized cause) and pulmonary criteria with at least two of the following: new onset of purulent sputum, or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements, worsening gas exchange (eg, desaturations, increased requirements, or increased ventilator demands), new-onset or worsening cough, or dyspnea, or tachypnea and rails or bronchial breath sounds. Patients with pneumonia prior to MV or within 48 hours of MV were excluded.

Data collection

Detailed history, including the name, age, sex, underlying clinical condition, date of admission, history of previous hospitalization, duration of ventilation, duration of hospital-stay and demographic data of patients were obtained in a structured questionnaire format and clinical outcome of each patient was noted.

Criteria for diagnosis of VAP

The patients who fulfilled clinical and microbiological criteria (> 10 polymorphonuclear cells/low power field and ≥ one bacterium/oil immersion field with or without the presence of intracellular bacteria on gram staining and quantitative endotracheal aspirate culture showing ≥ 10^5 CFU/ml) were considered as confirmed cases of VAP cases.

Identification of VAP pathogens

Endotracheal aspirate sample was collected under all aseptic precautions in a sterile universal container and sent to the laboratory within 4 h at ambient temperature. The endotracheal samples were serially diluted in sterile normal saline as 1/10, 1/100, 1/1000 and 0.01 ml of 1/1000 dilution and quantitative culture was performed on 5% sheep blood agar and MacConkey agar. After incubation at 37˚C in a 5% CO_2 incubator for 24 h, colony count was done and expressed as number of colony forming units per ml (CFU/ml). The number of CFU/ml is equal to number of colonies on agar plate × dilution factor × inoculation factor. All isolates were identified by MALDI-TOF MS (bioMérieux) and antibiotic susceptibility testing was performed and interpreted as per the Clinical and Laboratory Standards Institute (CLSI) guidelines [15].

Antimicrobial susceptibility testing

Based on the CLSI guidelines, for the Enterobacteriaceae members and non-fermenters, the antibiotics used were amikacin (30 μg), ampicillin (10 μg), amoxicillin-clavulanate (10 μg), aztreonam (30 μg), cefepime (30 μg), ceftriaxone (30 μg), cefoxitin (30 μg), cefazolin (30 μg), ciprofloxacin (5 μg), levofloxacin (5 μg), tetracycline (30 μg), co-trimoxazole (30 μg), gentamicin (10 μg), tobramycin (10 μg), imipenem (10 μg), meropenem (10 μg), ertapenem (10 μg), piperacillin-tazobactam (10 μg). For *Pseudomonas spp*., amikacin (30 μg), aztreonam (30 μg), cefepime (30 μg), ciprofloxacin (5 μg), levofloxacin (5 μg), co-trimoxazole (30 μg), gentamicin (10 μg), tobramycin (10 μg), imipenem (10 μg), meropenem (10 μg), ertapenem (10 μg), piperacillin-tazobactam (10 μg), co-trimoxazole (30 μg) and ceftazidime (30 μg) were tested. In multidrug resistant isolates colistin MICs were tested by broth microdilution (BMD). For the Gram-positive pathogens, penicillin, erythromycin, clindamycin, penicillin B, cefoxitin (10 μg), linezolid, amikacin (10 μg), levofloxacin (5 μg), tetracycline (30 μg), co-trimoxazole (30 μg)and gentamicin (5 μg) were tested by disc diffusion method and vancomycin MICs were tested by E- strip Test. Cefoxitin (30 μg) disc was used as surrogate marker for methicillin-resistant *Staphylococcus aureus*. The carbapenem resistance was screened from meropenem and/or imipenem disc (HiMedia Laboratories, India). The quality control strains used in the study were *Escherichia coli* (ATCC 25922), *Staphylococcus aureus* (ATCC 25923) and *Pseudomonas aeruginosa* (ATCC 27853).

Phenotypic test for detection of Metallo Beta Lactamase

Modified Hodge test. An inoculum of 0.5 McFarland standard of E. coli ATCC 25922 was prepared in saline and then diluted with saline up to 1:10 dilutions. MHA plate was inoculated with the above-prepared inoculum with a sterile cotton swab. Meropenem disc was applied to 10 μg at the center of the MHA plate. After that test organism was streaked with help of a sterilized wire loop in a straight line out from the center to the periphery. Plates were incubated at 37˚C for 24 hours. The appearance of a cloverleaf type indentation or flattening at the intersection of the test organism and E. coli ATCC 25922 within the zone of inhibition of the carbapenem susceptibility disc is positive Modified Hodge test [16].

mCIM (Modified Carbapenem Inactivation Method) testing. Using a sterile inoculating loop, isolates were emulsified from a fresh cultured overnight blood agar plate in a tube containing 2 ml of tryptic soy broth (TSB). 10 μg MEM disc (BD BBL Sensi-disc susceptibility test disc) was added into the above TSB inoculum and incubated. The MEM disc was removed from the TSB inoculum with a 10 μl loop wire and then the disc was placed on the previously *E. coli* ATCC inoculated MHA plate. MHA plate was then incubated in for 18–24 h at 37˚C. The zone diameter of 6–10 mm was considered as carbapenemase producer. All isolates that were mCIM positive were tested for eCIM test [15].

EDTA-modified carbapenem inactivation method. For each isolate to test eCIM, TSB tubes were prepared. 20 μl of the 0.5 M EDTA was added to the TSB tube. An increase in zone diameter (mm) $\geq$ 5 was considered as metallo-β-lactamase producer [15].

DNA extraction and PCR amplification of *bla*$_{IMP}$, *bla*$_{VIM}$ and *bla*$_{NDM}$ genes

DNA extraction was done by boiling method [17]. Monoplex PCR was performed to detect *bla*$_{IMP}$, *bla*$_{VIM}$ and *bla*$_{NDM}$ responsible for MBL production using the primers as described in Table 1. PCR amplification was done in a DNA thermal cycler (Model-Bio-Rad C1000 Touch TM Thermal Cycler) with a final volume of 25 μl master mix consisting of 12.5 μl of 2X universal PCR master mix, 2μl of primers (5–10 μM) of each forward and reverse primers, 5.5 μl of nuclease-free water and 5 μl of DNA template. The initial denaturation temperature was at 95˚C for 15 min, followed by 30 cycles of DNA denaturation at 95˚C for 30 sec. The primer annealing was carried out at 59˚C for 1.5 min, and primer extension was carried out at 72˚C for 1.5 min. After the last cycle, a final extension step was carried out at 72˚C for 10 min. After that, amplification products were electrophoresed on 1.5% agarose gel and visualized using UV transilluminator at 260 nm.

Statistical analysis

Statistical analyses within the study were performed using the SPSS, Version 20 (SPSS Inc., Chicago, IL, USA). Chi-square test was used to compare categorical variables where ever applicable and *p*-value less than 0.05 were considered significant.

Results

Incidence and characteristics of patients with VAP

Out of the 353 MV patients, 172(48.7%) met clinical and microbiological criteria and were considered cases of VAP. 55(15.6%) samples met microbiologically criteria, but cases did not meet clinical criteria and were considered as non-VAP. Early-onset VAP was found in 40 (23.3%) patients and late-onset VAP in 132(76.7%) patients. Most common affected age group was 41–60 years with mean age 46.85±18.13 and range 19–89 years. 119(69.2%) patients were male and 53(30.8%) were females and difference was statistically significant ($p = 0.026$).

Risk factors in VAP and Non-VAP patients

On univariate analysis, VAP showed significant association with prior surgery ($p = 0.009$), CPI score >6 ($p<0.001$) and previous antibiotic therapy ($p<0.001$). Tracheostomy showed significant association with late-onset VAP ($p = 0.025$). The proportion of tracheostomy cases was significantly higher in late VAP as compared to early VAP (36.4% vs. 17.5%). Late VAP cases as compared to early VAP cases had significantly higher ventilation time (10.02±4.27 vs. 5.75

Table 1. Primer sequences and their amplicon sizes used in amplification of MBL genes.

Gene	Primer Sequence (5'-3')	Product size (bp)	Ref
NDM-1F	CACCTCATGTTTGAATTCGCC	984	Kaase M et al. 2011 [18]
NDM-1R	CTCTGTCACATCGAAATCGC		
VIM-F	GATGGTGTTTGGTCGCATA	390	Poirel L et al. 2011 [19]
VIM-R	CGAATGCGCAGCACCAG		
IMP-F	GGAATAGAGTGGCTTAAYTCTC	232	Poirel L et al. 2011 [19]
IMP-R	CCAAACYACTASGTTATCT		

https://doi.org/10.1371/journal.pone.0256308.t001

±2.47 days) and duration of hospital stay (21.29±10.93 vs. 15.35±5.85 days). The risk factors have been summarized in Table 2.

Causative agents of early-onset and late-onset VAP

187 isolates were recovered from 172 VAP patients; the most common pathogen was *Acinetobacter baumannii* (29.4%) followed by *Pseudomonas aeruginosa* (24.1%), *Klebsiella pneumoniae* (24.1%) and *Staphylococcus aureus* (7.5%). Most common agents in early-onset VAP cases were *K. pneumoniae* (36.4%), *A. baumannii* (20.5%), *S. aureus* (20.5%), and while in late-onset VAP were *A. baumannii* (32.2%), *P. aeruginosa* (29.4%), *K. pneumoniae* (20.3%) and *E. coli* (5.6%) Table 3. Of the included cases, 15 (8.7%) showed the polymicrobial growth Table 4.

Antibiotic resistance patterns in VAP patients

Out of 169 Gram-negative isolates recovered, 144 (85.2%) were multi-drug-resistant; as they were resistant to more than three groups of antibiotics. 99/169 (58.6%) Gram-negative isolates were resistant to carbapenems. Among Gram-positive organisms, 13(92.9%) isolates were MRSA but all isolates were sensitive to linezolid and vancomycin. 21.4% isolates of *S. aureus* showed MIC 0.5 μg/ml and in 78.6% MIC was 1 μg/ml. The colistin MIC of the isolates ranged from 0.25–2 μg/ml and no resistance was seen. The antibiotic resistance pattern of isolated organisms has been summarized in Table 5.

Table 2. Correlation of demographic and risk factors in VAP and Non-VAP patients by univariate analysis.

SN	Variable	Total cases (n = 244)	Non-VAP (n = 57)		VAP (n = 187)		Chi-square	
1.	Mean age±SD (Range)	46.85± 18.13 (19–89)	49.25±17.93 (19–82)		46.08±18.18 (19–89)		1.132	0.259
			n	%	n	%	χ^2	'*p*'
2.	Age (Years)							
	18–25	35	7	12.7	28	16.3	2.101	0.717
	26–40	60	12	21.8	48	27.9		
	41–60	75	20	36.4	55	32.0		
	61–80	51	15	27.3	36	20.9		
	>80	6	1	1.8	5	2.9		
3.	Sex							
	Females	79	26	47.3	53	30.8	4.975	0.026
	Male	148	29	52.7	119	69.2		
4.	Smoking	86	17	30.9	69	40.1	1.501	0.220
5.	Alcohol	41	9	16.4	32	18.6	0.141	0.707
6.	Diabetes	30	7	12.7	23	13.4	0.015	0.902
7.	Hypertension	81	18	32.7	63	36.6	0.276	0.599
8.	Liver disease	18	6	10.9	12	7.0	0.883	0.347
9.	Lung disease	39	7	12.7	32	18.6	1.012	0.314
10.	Renal disease	22	8	14.5	14	8.1	1.954	0.162
11.	Neurological	11	2	3.6	9	5.2	0.230	0.631
12.	Surgery	109	18	32.7	91	52.9	6.799	0.009
13.	Tracheostomy	68	13	23.6	55	32.0	1.382	0.240
14.	Heart disease	13	6	10.9	7	4.1	3.611	0.057
15.	CPI[a] Score ≥6	186	15	27.3	171	99.4	146.569	<0.001
16.	Previous Antibiotic history	62	12	6.7	50	29.1	30.421	<0.001

[a]CPI score- Clinical pulmonary infection Score.

https://doi.org/10.1371/journal.pone.0256308.t002

Table 3. Proportion of pathogens isolated from early-onset and late-onset VAP patients (n = 172).

SN	Organisms	Total of isolates recovered (n = 187)	Early VAP (n = 44)		Late VAP (n = 143)	
			No.	%	No.	%
1	*Acinetobacter baumannii*	55	9	20.5	46	32.2
2	*Pseudomonas aeruginosa*	45	3	6.8	42	29.4
3	*Klebsiella pneumoniae*	45	16	36.4	29	20.3
4	*Escherichia coli*	12	4	9.1	8	5.6
5	*Proteus mirabilis*	8	0	0.0	8	5.6
6	*Pseudomonas putida*	2	0	0.0	2	1.4
7	*Enterobacter hormaechei*	1	1	2.3	0	0.0
8	*Citrobacter freundi*	1	0	0.0	1	0.7
9	*Staphylococcus aureus*	14	9	20.5	5	3.5
10	*Candida albicans*	3	2	4.5	1	0.7
11	*Candida tropicalis*	1	0	0.0	1	0.7

https://doi.org/10.1371/journal.pone.0256308.t003

Performance of phenotypic methods for carbapenamase producers

The phenotypic methods showed that 66/99(66.6%) carbapenem-resistant isolates were phenotypic producer of carbapenemases by the MHT while 58(75.3%) were detected by mCIM/eCIM test as MBL producers (Fig 1A and 1B). The sensitivity and specificity of the MHT was 76.9% and 44.7% respectively. The sensitivity and specificity of mCIM/eCIM test was 96.2% and 83% respectively considering PCR as the gold standard Table 6.

Genotypic methods for carbapenamase producers

The results of amplified genes by the PCR (Fig 2A and 2B) showed of the 99 isolates, 37/172 (21.5%) contained bla_{NDM} and 30/172(17.4%) had bla_{VIM} gene. 15/172(8.7%) isolates harbored both bla_{NDM} and bla_{VIM} genes and these all were found in late-onset VAP cases. None of the isolates harbored bla_{IMP} gene (Table 7). NDM was more common in early-onset VAP while VIM in late-onset VAP cases. Verona integron metallo beta-lactamase (VIM) type MBL was associated with more deaths than NDM type MBL and patients with MBL negative organisms had a lesser mortality.

Clinical outcomes

While assessing for an outcome, mortality in VAP patients (100, 58.1%) was higher compared to non-VAP (22, 34.3%). The most common cause of the death was septic shock with multisystem organ failure. 59(34.3%) patients with VAP and 31(56.4%) non-VAP patients had recovered.

Table 4. The distribution of poly-microbial isolates from VAP patients.

S.No.	Organism	No. of isolates (n)	Percentage (%)
1.	*Acinetobacter baumannii* + *Pseudomonas aeruginosa*	4	26.6
2.	*Acinetobacter baumannii* + *K. pneumoniae*	4	26.6
3.	*Pseudomonas aeruginosa* + *K. pneumoniae*	3	20
4.	*Acinetobacter baumannii* + *Candida albicans*	2	13.2
5.	*Pseudomonas aeruginosa* + *Candida albicans*	1	6.8
6.	*Escherichia coli* + *Candida tropicalis*	1	6.8
	Total	15	100

https://doi.org/10.1371/journal.pone.0256308.t004

Table 5. Antibiotic resistance pattern of bacteria isolated from VAP patients.

Drugs	*A. baumannii* (n = 55)	*P. aeruginosa* (n = 45)	*K. pneumoniae* (n = 45)	*E. coli* (n = 12)
Ampicillin	-	-	-	100
Amoxy-clavulanic acid	-	91.8		91.7
Amikacin	84.8	48.9	78.4	41.7
Tobramycin	80.4	75.6	88.2	33.3
Gentamycin	88	82.2	80.4	36.4
Ciprofloxacin	90.2	46.7	96.1	91.7
Levofloxacin	95.6	91.4	92.2	83.3
Aztreonam	-	50	90	75
Ceftriaxone	96.7	-	93.8	90
Cefoxitin	-	-	93.8	90
Cefazolin	-	-	100	100
Ceftazidime	-	62.1	-	-
Piperacillin-tazobactam	66.3	53.3	92.2	66.7
Imipenem	85.9	57.8	66.7	50
Meropenem	65.2	48.9	70.6	50
Ertapenem	-	-	56	40
Colistin	0	0	0	0
Tigecycline	0	0	0	0

https://doi.org/10.1371/journal.pone.0256308.t005

Discussion

VAP refers to pneumonia caused by bacterial agents developed in patients who are mechanically ventilated for duration of more than 48 h. It is a critical public health issue related to significant morbidity, mortality and enhanced cost of care [20].

In our study, the incidence of confirmed VAP was 48.75%. Existing literature from Indian studies suggests an incidence of VAP ranging from 13–42%, and is highly variable in different regions [21]. Incidence rate reported in the developing countries is 25–35%, while in developed countries is 15–17% [22]. Majority of patients were in age group of 40–60 years with preponderance of male sex (69.2% or 199/172), similar findings have been published in various studies [23]. It appears due to the difference in the rates of admission and enrollment. In present study, late-onset VAP (76.7%) was more common than early-onset VAP (23.3%). Few

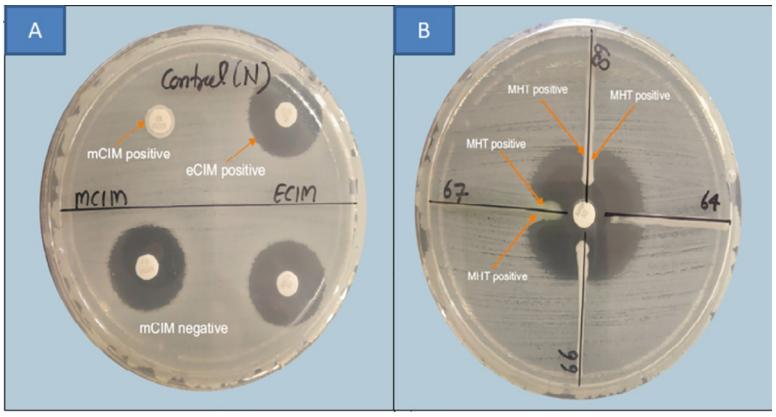


Fig 1. A: Isolate positive for mCIM/eCIM test (isolate with bla_{NDM} *gene)*. B: Isolate showing clover-leaf shaped pattern in Modified-Hodge test.

https://doi.org/10.1371/journal.pone.0256308.g001

Table 6. Sensitivity and specificity of different phenotypic methods in relation to PCR among carbapenem-resistant isolates from VAP patients.

	PCR				Sensitivity	Specificity	PPV	NPV	Diag. accuracy
	Positive		Negative						
	No.	%	No.	%					
MHT +ve	40	76.9	26	55.3	76.9	44.7	60.6	63.6	61.6
MHT–ve	12	23.1	21	44.7					
eCIM +ve	50	96.2	8	17.0	96.2	83.0	86.2	95.1	89.9
eCIM -ve	2	3.8	39	83.0					
mCIM +ve	51	98.1	26	55.3	98.1	44.7	66.2	95.5	72.7
mCIM -ve	1	1.9	21	44.7					

Abbreviations: MHT, modified Hodge test; eCIM, EDTA-modified carbapenem inactivation method; mCIM, modified carbapenem inactivation method; PPV, positive predictive value; NPV, negative predictive value; VAP, ventilator-associated pneumonia; +ve-positive.

https://doi.org/10.1371/journal.pone.0256308.t006

studies conducted in India showed late-onset VAP in 34–60% cases and early-onset VAP in 20–40% cases [24]. In contrast, a study conducted in Pondicherry, India observed early-onset VAP in 72.2% patients [25]. We also observed higher mortality in VAP patients 100/172 (58.1%) compared to non-VAP 22/55(40%).

There are some factors that make the patients vulnerable to develop VAP. The present study identified prior surgery, CPI score >6, previous antibiotic therapy and tracheostomy were associated with VAP compared to non-VAP. The proportion of tracheostomy cases was significantly higher in late-onset VAP as compared to early-onset VAP. Patients with late-onset VAP had higher ventilation time and duration of hospital stay. Previous antibiotic treatment is a well-known risk factor for VAP [26]. However, few observational studies found antibiotic treatment to be protective against early-onset VAP [27]. The study in a Europe, demonstrated that tracheotomy was independently associated with decreased risk for VAP which is contrasting to our findings [28].

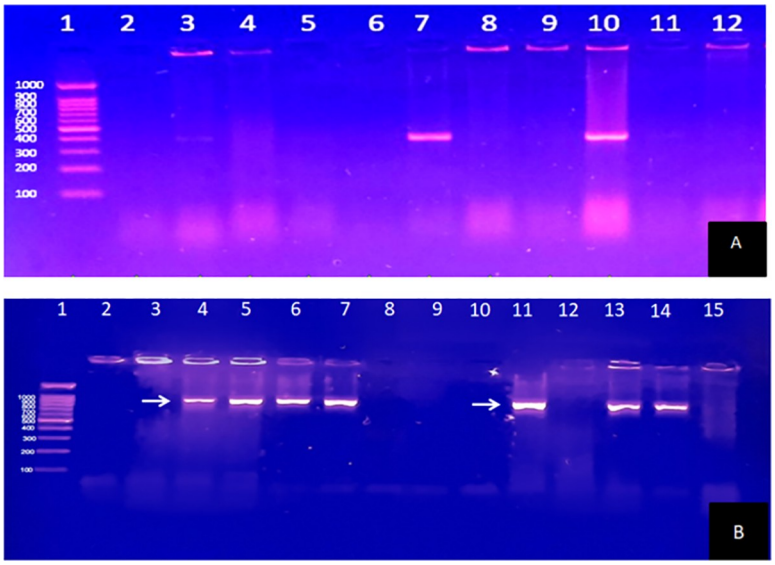


Fig 2. A: Agarose gel electrophoresis of products obtained by PCR of amplified DNA. Lane 1: 100 bp DNA ladder; Lane 2- Negative control; Lane 9-Positive control bla_{VIM} (390bp); Lane 10: Isolates positive for bla_{VIM} gene (390bp). B: Agarose gel electrophoresis of products obtained by PCR of amplified DNA. Lane 1: 100 bp DNA ladder; Lane 2: Negative control; Lane 4: Positive control for bla_{NDM} gene (984bp); Lane 5, 6, 7, 11,13 and 14: Isolates positive for bla_{NDM} gene (984bp).

https://doi.org/10.1371/journal.pone.0256308.g002

Table 7. Metallo-β-lactamases producing Gram negative isolates from VAP patients.

	Total (n = 99)	bla_{VIM} +ve		bla_{NDM} +ve		$bla_{VIM+NDM}$ both +ve		bla_{IMP} +ve	
		No.	%	No.	%	No.	%	No.	%
A. baumannii	37	18	48.6	15	40.5	8	21.6	0	-
P. aeruginosa	24	3	12.5	5	20.8	1	4.2	0	-
K. pneumoniae	27	8	29.6	13	48.1	6	22.2	0	-
E. coli	5	0	0.0	3	60.0	0	0.0	0	-
P. mirabilis	2	1	50.0	1	50.0	0	0.0	0	-
Pseudomonas spp.	2	0	0.0	0	0.0	0	0.0	0	-
Enterobacter hormaechei	1	0	0.0	0	0.0	0	0.0	0	-
Citrobacter freundii	1	0	0.0	0	0.0	0	0.0	0	-
	99	**30**		**37**		**15**		**0**	

https://doi.org/10.1371/journal.pone.0256308.t007

In present study, Gram-negative bacteria were found as causative agents of VAP which is similar to what has been reported in few studies [29,30]. Gram-positive bacteria are common agents of VAP in developed countries but have also been reported in few Indian studies [31]. In accordance to other Asia studies [23], multidrug-resistant *A. baumannii* was the predominant bacteria in VAP cases followed by *P. aeruginosa* (24.1%), *K. pneumoniae* (24.1%) and *S. aureus* (7.5%). Most common agents in early-onset VAP were *K. pneumoniae* (36.4%), *A. baumannii* (20.5%), *S. aureus* (20.5%), and while in late-onset VAP were *A. baumannii* (32.2%), *P aeruginosa* (29.4%), *K. pneumoniae* (20.3%) and *E. coli* (5.6%). But the probable cause for this difference could not be explained. The results of our study showed mono microbial infection in the majority of patients and 15(8.7%) patients had polymicrobial infection which can result in poor prognosis [32].

Knowledge of the susceptibility of pathogens to antimicrobial agents is urgently required, since understanding of the pattern of antibiotic resistance may aid in treatment of VAP infection. In present study, the majority of isolates from both early-onset and late-onset VAP were multidrug resistant (85.2%), carbapenem-resistant (58.6%) and resistant to typically recommended for empirical initial therapy for VAP. In the study, tigecycline and colistin showed promising efficacy followed by piperacillin/tazobactum combination and the imipenem. Among these isolate, the MIC values for colistin ranged from 0.25–2 μg/mL and for tigecycline ranged from 0.125-2.0 μg/mL. Similar to other studies [5], we observed that MRSA and MSSA isolates were 100% sensitive to vancomycin and MIC ranged from 0.5–1 μg/ml. The incidence of MDR pathogens was quite high in our study; investigators have stated that MDR is usually a consequence of management based on empirical broad spectrum antibiotics. Thus, appropriate and judicious use of antibiotic to treat VAP, empirically, timely awareness and intervention can potentially reduce VAP and thus suffering in these patients [33]. The widespread use of over the counter antibiotics in India have led to huge selection pressure and MDR problem is likely to get substantially worse in the foreseeable future [25].

Carbapenem resistance in Gram-negative bacteria is an emerging worldwide challenge in the critical care settings. World Health Organization (WHO) in 2017 included carbapenem resistant Enterobacteriaceae (CRE), carbapenem-resistant *Pseudomonas aeruginosa*, and carbapenem-resistant *A. baumannii* in the highest priority category [34]. The understanding if isolate is carpapenamase producer has significant epidemiological implications for monitoring local epidemiology and also lead to more effective treatment of infections [35]. In recent years, numerous genotypic and phenotypic assays for detecting carbapenemases have been developed. The advantages of phenotypic assays compared to genotypic tests are that they are substantially less expensive than genotypic tests [36]. The overall sensitivity and specificity of

mCIM test in this study was 98% and 44.6% respectively, and of MHT was 76.9% and 44.7% respectively. Our results showed that the mCIM is more accurate compared to MHT to detect MBLs. Here, we showed mCIM/eCIM had excellent sensitivity for the detection MBLs, sensitivity was 96.2% and the specificity was 83%. Our results are consistent with previous studies [35]. It is possible that new or truncated carbapenemase genes might not be identified consistently with the phenotype.

In general data on the dissemination of antimicrobial genes on India is scarce, especially regarding the prevalence of MBL genes among VAP. Worrisome, in our study is that 58.6% of VAP patients had high resistance to carbapenems. Of the 172 isolates, 21.5% exhibited the presence of bla_{NDM} genes and 17.4% exhibited the presence of bla_{VIM} gene. 8.7% isolates harbored both bla_{NDM} and bla_{VIM} genes. None of the isolates contained bla_{IMP} gene. Our study is in accordance to previously published ICMR report in which NDM was the most prevalent carbapenemases across the Indian AMR network [37]. In the present study, bla_{NDM} was harbored by15 isolates of *A.baumannii*, 13 *K. pneumoniae*, five *P. aeruginosa*, three E. coli and one *P. mirabilis*. All the isolates showed high resistance against all antibiotics, except colistin and tigecycline. In another similar study, the most common MBL subtype was bla_{IMP} which is contrasting to our findings [38].

A.baumannii plays a major role in VAP and acquired MBL is emerging as one of the important mechanisms of resistance [6]. In present study, 45.4% isolates of *A. baumannii* were MBL producers, 32.7% were VIM positive, 27.2% were NDM positive and 14.5% were positive for both. Many other studies reported higher NDM positivity (60–80%) rate among *A. baumannii* isolates of VAP patients [39]. In a similar study on molecular analysis showed that *A. baumannii* and *P. aeruginosa* isolates were positive for VIM gene, whereas IMP was not detected in any of the isolates [40]. In a laboratory based study, 100 MDR isolates from ICU harbored bla_{IMP} (89%), bla_{VIM}(51%) and $bla_{\mathrm{NDM\text{-}1}}$(34%) [41]. There is evidence that multiples clones of metallo-beta-lactamase of *P. aeruginosa* are circulating in India [42]. A study from Pune, India reported VIM-type in 40% and NDM-type in 10% carbapenem-resistant *P. aeruginosa* isolates. This study corroborates with our findings in relation to NDM, while for VIM positivity rate is lesser than our study [43]. In the present study, *K. pneumoniae* harbored NDM (28.8%), VIM (17.7%) and 13.3% were positive for both VIM and NDM gene whereas *E. coli* only three isolates carried NDM gene. Contrary to our findings, a study from North Indian corporate hospital reported NDM gene to be more prevalent in *E. coli* than *K. pneumoniae* [37]. In present study VIM type MBL was associated with more mortality compared other MBL. The exact cause of this could not be identified. Understanding the mechanisms causing carbapenem resistance in Gram negative bacteria has important clinical implications and results in different prevention measurements and individualized antibiotic therapy. Infection control committees in hospitals should ensure robust antibiotic stewardship programs and must focus on eliminating or minimizing the incidence of VAP through preventive techniques like VAP bundle, hand hygiene, proper suctioning methods and regular fumigation of ICUs and disinfection of ventilators.

Conclusions

To the best of our knowledge this is the first analysis of carbapenem-resistant Gram-negative bacilli carrying multiple MBL genes responsible for VAP in India. This study shows the high prevalence, diversity of patterns and coexistence of MBL genes in the Gram negative isolates from VAP patients pose risks of possible transmission to the environment, other animals and human. MBL production in VAP patients and its association with mortality is worth investigating in the future.

Supporting information

S1 Raw images. Raw images used in Figs 1 and 2.
(PDF)

S1 File. Data used in the manuscript.
(XLSX)

Acknowledgments

Authors would like to acknowledge critical reading of the anonymous reviewers.

Author Contributions

Conceptualization: Sheetal Verma, Vimala Venkatesh.

Data curation: Mithlesh Kumari, Sheetal Verma, Avinash Agarwal, Suhail Sarwar Siddiqui, Zia Arshad, Ved Prakash.

Formal analysis: Mithlesh Kumari, Sheetal Verma.

Funding acquisition: Mithlesh Kumari, Sheetal Verma.

Investigation: Mithlesh Kumari, Sheetal Verma, Piyush Tripathi.

Methodology: Sheetal Verma.

Project administration: Sheetal Verma, Vimala Venkatesh.

Resources: Mithlesh Kumari, Sheetal Verma.

Software: Mithlesh Kumari, Sheetal Verma.

Supervision: Sheetal Verma, Vimala Venkatesh, Prashant Gupta.

Validation: Mithlesh Kumari, Sheetal Verma.

Visualization: Mithlesh Kumari, Sheetal Verma, Prashant Gupta.

Writing – original draft: Sheetal Verma.

Writing – review & editing: Sheetal Verma.

References

1. Rosenthal VD, Al-Abdely HM, El-Kholy AA, et al. International Nosocomial Infection Control Consortium report, data summary of 50 countries for 20102015: device-associated module. Am J Infect Control 2016; 44:1495–504. https://doi.org/10.1016/j.ajic.2016.08.007 PMID: 27742143
2. Kalanuria AA, Ziai W, Mirski M. Ventilator-associated pneumonia in the ICU. Crit Care. 2014 Mar 18; 18 (2):208. Erratum in: Crit Care. 2016;20:29. https://doi.org/10.1186/cc13775 PMID: 25029020
3. Chastre Jean, Luyt Charles-Edouard, Murray and Nadel's Textbook of Respiratory Medicine (Sixth Edition), Elsevier Saunders; 2016.
4. Luyt CE, Hékimian G, Koulenti D, Chastre J. Microbial cause of ICU-acquired pneumonia: hospital-acquired pneumonia versus ventilator-associated pneumonia. Curr Opin Crit Care. 2018; 24(5):332–338. https://doi.org/10.1097/MCC.0000000000000526 PMID: 30036192
5. Patro S, Sarangi G, Das P, Mahapatra A, Mohapatra D, Paty BP, et al. Bacteriological profile of ventilator-associated pneumonia in a tertiary care hospital. Indian J Pathol Microbiol. 2018; 61(3):375–379. https://doi.org/10.4103/IJPM.IJPM_487_16 PMID: 30004058
6. Guzek A, Korzeniewski K, Tomaszewski D, Rybicki Z, Zwolińska E. Bacteriological Assessment of Pneumonia Caused by Gram-Negative Bacteria in Patients Hospitalized in Intensive Care Unit. Adv Exp Med Biol. 2017; 955:39–46. https://doi.org/10.1007/5584_2016_163 PMID: 27739023

7. Breijyeh Z, Jubeh B, Karaman R. Resistance of Gram-negative bacteria to current antibacterial agents and approaches to resolve it. Molecules. 2020; 25(6):1340. https://doi.org/10.3390/molecules25061340 PMID: 32187986

8. Alecrim RX, Taminato M, Belasco A, Longo MCB, Kusahara DM, Fram D. Strategies for preventing ventilator-associated pneumonia: an integrative review. Rev Bras Enferm. 2019; 72(2):521–530. https://doi.org/10.1590/0034-7167-2018-0473 PMID: 31017218

9. El-Sayed M, Algammal A, Abouel-Atta M, Mabrok M, Emam A. Pathogenicity, genetic typing, and antibiotic sensitivity of Vibrio alginolyticus isolated from Oreochromis niloticus and Tilapia zillii. Rev. Med. Vet. 2019; 170:80–6.

10. Algammal AM, Hetta HF, Elkelish A, Alkhalifah DH, Hozzein WN, Batiha GE, et al. Methicillin-Resistant Staphylococcus aureus (MRSA): one health perspective approach to the bacterium epidemiology, virulence factors, antibiotic-resistance, and zoonotic impact. Infection and Drug Resistance. 2020; 13:3255–3265. https://doi.org/10.2147/IDR.S272733 PMID: 33061472

11. Makharita RR, El-Kholy I, Hetta HF, Abdelaziz MH, Hagagy FI, Ahmed AA, et al. Antibiogram and Genetic Characterization of Carbapenem-Resistant Gram-Negative Pathogens Incriminated in Healthcare-Associated Infections. Infect Drug Resist. 2020; 13:3991–4002. https://doi.org/10.2147/IDR.S276975 PMID: 33177849

12. Algammal AM, Hashem HR, Alfifi KJ, Hetta HF, Sheraba NS, Ramadan H, et al. atpD gene sequencing, multidrug resistance traits, virulence-determinants, and antimicrobial resistance genes of emerging XDR and MDR-Proteus mirabilis. Sci Rep. 2021; 11(1):9476. https://doi.org/10.1038/s41598-021-88861-w PMID: 33947875

13. Abolghait SK, Fathi AG, Youssef FM, Algammal AM. Methicillin-resistant Staphylococcus aureus (MRSA) isolated from chicken meat and giblets often produces staphylococcal enterotoxin B (SEB) in non-refrigerated raw chicken livers. Int J Food Microbiol. 2020; 328:108669. https://doi.org/10.1016/j.ijfoodmicro.2020.108669 PMID: 32497922

14. Spalding MC, Cripps MW, Minshall CT. Ventilator-Associated Pneumonia: New Definitions. Crit Care Clin. 2017; 33(2):277–292. https://doi.org/10.1016/j.ccc.2016.12.009 PMID: 28284295

15. Clinical and Laboratory Standards Institute. 2019. Performance standards for antimicrobial susceptibility testing; 29th informational supplement. CLSI document M100-S29. Clinical and Laboratory Standards Institute, Wayne, PA.

16. Amjad A, Mirza IA, Abbasi SA, Farwa U, Malik N, Zia F. Modified Hodge test: A simple and effective test for detection of carbapenemase production. Iranian journal of microbiology. 2011; 3(4):189. PMID: 22530087

17. Holmes D. S., & Quigley M. (1981). A rapid boiling method for the preparation of bacterial plasmids. Analytical Biochemistry, 114(1), 193–197. https://doi.org/10.1016/0003-2697(81)90473-5 PMID: 6269464

18. Kaase M., Nordmann P., Wichelhaus T. A., Gatermann S. G., Bonnin R. A., and Poirel L., "NDM-2 carbapenemase in Acinetobacter baumannii from Egypt," Journal of Antimicrobial Chemotherapy, vol. 66, no. 6, pp. 1260–1262, 2011. https://doi.org/10.1093/jac/dkr135 PMID: 21427107

19. Poirel L, Walsh TR, Cuvillier V, Nordmann P. Multiplex polymerase chain reaction for detection of acquired carbapenemase genes. Diagn Microbiol Infect Dis 2011; 70:119–23. https://doi.org/10.1016/j.diagmicrobio.2010.12.002 PMID: 21398074

20. Kumari Minu, Rastogi Neha, Malhotra Rajesh, Mathur Purva, Clinico-microbiological profile of healthcare associated pneumonia in critically ill patients at level-I trauma centre of India. J Lab Physicians.2018; 10:406–9. https://doi.org/10.4103/JLP.JLP_85_18 PMID: 30498312

21. Noyal Mariya Joseph Sujatha Sistla, Tarun Kumar Dutta Ashok Shankar Badhe, Subhash Chandra Parija, Ventilator-associated pneumonia in a tertiary care hospital in India: incidence and risk factors. J Infect Dev Ctries.2009; 3(10):771–777. https://doi.org/10.3855/jidc.396 PMID: 20009278

22. Vijay G., Mandal A., Sankar J. et al. Ventilator Associated Pneumonia in Pediatric Intensive Care Unit: Incidence, Risk Factors and Etiological Agents. Indian J Pediatr.2018; 85:861–866. https://doi.org/10.1007/s12098-018-2662-8 PMID: 29616405

23. Joseph NM, Sistla S, Dutta TK, Badhe AS, Parija SC. Ventilator-associated pneumonia in a tertiary care hospital in India: incidence and risk factors. J Infect Dev Ctries 2009; 310:771–7.

24. Ashu Sara Mathai a, Atul Phillips a, Paramdeep Kaur b, Rajesh Isaac b, Journal of Infection and Public Health. 2015; 8:127–135. https://doi.org/10.1016/j.jiph.2014.07.005 PMID: 25444392

25. Joseph NM, Ravishankar M, Kumar S, Umadevi S, Charles MP. Incidence and risk factors of ventilator associated pneumonia in a tertiary care hospital. Australasian Medical Journal. 2013; 6:178–182. https://doi.org/10.4066/AMJ.2013.1627 PMID: 23671462

26. Righy C, do Brasil PE, Vallés J, Bozza FA, Martin-Loeches I. Systemic antibiotics for preventing ventilator-associated pneumonia in comatose patients: a systematic review and meta-analysis. Annals of intensive care. 2017; 7(1):67. https://doi.org/10.1186/s13613-017-0291-4 PMID: 28620893

27. Tuon FF, Graf ME, Merlini A, Rocha JL, Stallbaum S, Arend LN, et al. Risk factors for mortality in patients with ventilator-associated pneumonia caused by carbapenem-resistant Enterobacteriaceae. The Brazilian Journal of Infectious Diseases. 2017; 21(1):1–6. https://doi.org/10.1016/j.bjid.2016.09.008 PMID: 27821248

28. Koulenti D, Tsigou E, Rello J. Nosocomial pneumonia in 27 ICUs in Europe: perspectives from the EU-VAP/CAP study. European journal of clinical microbiology & infectious diseases. 2017; 36(11):1999–2006. https://doi.org/10.1007/s10096-016-2703-z PMID: 27287765

29. Medell M, Hart M, Duquesne A, Espinosa F, Valdés R. Nosocomial ventilator-associated pneumonia in Cuban Intensive Care units: bacterial species and antibiotic resistance. MEDICC Rev 2013; 15:26–9. https://doi.org/10.37757/MR2013V15.N2.6 PMID: 23686252

30. Restrepo MI, Peterson J, Fernandez JF, Qin Z, Fisher AC, Nicholson SC. Comparison of the bacterial etiology of early onset and late-onset ventilator-associated pneumonia in subjects enrolled in 2 large clinical studies. Respir Care. 2013; 58:1220–5. https://doi.org/10.4187/respcare.02173 PMID: 23307825

31. Quartin AA, Scerpella EG, Puttagunta S, Kett DH. A comparison of microbiology and demographics among patients with healthcare-associated, hospital-acquired, and ventilator-associated pneumonia: a retrospective analysis of 1184 patients from a large, international study. BMC Infect Dis. 2013; 13:561. https://doi.org/10.1186/1471-2334-13-561 PMID: 24279701

32. Karad DD, Somani Y, Khande H, Yadav B, Kharat AS. Molecular characterization of a multidrug-resistant/pandrug-resistant nosocomial polymicrobial infection with Klebsiella pneumoniae, Providencia rettgeri, and Acinetobacter baumannii from Rural Maharashtra, India. Acta Biochimica Polonica. 2020; 67(3):387–92. https://doi.org/10.18388/abp.2020_5239 PMID: 32735431

33. Patil HV, Patil VC. Incidence, bacteriology, and clinical outcome of ventilator-associated pneumonia at tertiary care hospital. J Nat Sci Biol Med. 2017; 8(1):46–55. https://doi.org/10.4103/0976-9668.198360 PMID: 28250674

34. Nordmann P, Poirel L. Epidemiology and diagnostics of carbapenem resistance in Gram-negative bacteria. Clinical Infectious Diseases. 2019; 69(Supplement_7):S521–8. https://doi.org/10.1093/cid/ciz824 PMID: 31724045

35. Tsai YM, Wang S, Chiu HC, Kao CY, Wen LL. Combination of modified carbapenem inactivation method (mCIM) and EDTA-CIM (eCIM) for phenotypic detection of carbapenemase-producing Enterobacteriaceae. BMC microbiology. 2020; 20(1):1–7. 3. https://doi.org/10.1186/s12866-019-1672-7 PMID: 31896348

36. Sfeir MM, Hayden JA, Fauntleroy KA, Mazur C, Johnson JK, Simner PJ, et al. EDTA-modified carbapenem inactivation method: a phenotypic method for detecting metallo-β-lactamase-producing Enterobacteriaceae. Journal of clinical microbiology. 2019; 57(5). https://doi.org/10.1128/JCM.01757-18 PMID: 30867235

37. Indian Council of Medical Research Annual report: antimicrobial resistance surveillance network. 2018. [Internet]. 2018. Available from: https://main.icmr.nic.in/sites/default/files/reports/AMRSN_Annual_Report_2018_0.pdf. (Last accessed on 28-01-2021).

38. Dwivedi M, Mishra A, Azim A, Singh R K, Baronia A K, Prasad K N, et al. Ventilator-associated pneumonia caused by carbapenem-resistant Enterobacteriaceae carrying multiple metallo-beta-lactamase genes. Indian J Pathol Microbiol 2009; 52:339–42. https://doi.org/10.4103/0377-4929.54988 PMID: 19679955

39. Asmaa M Elbrolosy, Azza Z Labeeb, Dina M Hassan, New Delhi metallo-β-lactamase-producing Acinetobacter isolates among late-onset VAP patients: multidrug-resistant pathogen and poor outcome, Infection and Drug Resistance 2019: 12 373–384. https://doi.org/10.2147/IDR.S186924 PMID: 30809098

40. Amudhan MS, Sekar U, Kamalanathan A, Balaraman S. blaIMP and blaVIM mediated carbapenem resistance in Pseudomonas and Acinetobacter species in India. The Journal of Infection in Developing Countries. 2012; 6(11):757–62. https://doi.org/10.3855/jidc.2268 PMID: 23277500

41. Banerjee T, Mishra A, Das A, Sharma S, Barman H, Yadav G. High prevalence and endemicity of multidrug resistant Acinetobacter spp. in intensive care unit of a tertiary care Hospital, Varanasi, India. Journal of pathogens. 2018.

42. Castanheira M, Bell JM, Turnidge JD, Mathai D, Jones RN. Carbapenem resistance among Pseudomonas aeruginosa strains from India: evidence for nationwide endemicity of multiple metallo-β-lactamase clones (VIM-2,-5,-6, and-11 and the newly characterized VIM-18). Antimicrobial agents and chemotherapy. 2009; 53(3):1225–7. https://doi.org/10.1128/AAC.01011-08 PMID: 19114677

43. Khajuria A, Praharaj AK, Kumar M, Grover N. Emergence of NDM–1 in the clinical isolates of Pseudomonas aeruginosa in India. Journal of clinical and diagnostic research: JCDR. 2013; 7(7):1328. https://doi.org/10.7860/JCDR/2013/5509.3137 PMID: 23998058

ORIGINAL RESEARCH

Evaluation of adverse drug reactions in patients of diabetes mellitus on 1st line Anti-tubercular treatment

Dr. Abhay Verma[1], Dr. D.K. Katiyar[2], Dr. Ajay Kumar Verma[3], Dr. Arpita Singh[4], Dr. Himanshu[5]

[1]Junior resident-3, Department of pharmacology KGMU Lucknow, Uttar Pradesh, India;
[2]Professor, Department of pharmacology KGMU Lucknow, Uttar Pradesh, India;
[3]Professor (JG), Department of pharmacology KGMU Lucknow, Uttar Pradesh, India;
[4]Associate Professor Dr RMLIMS Lucknow, Uttar Pradesh, India;
[5]Associate Professor Department of Medicine KGMU Lucknow, Uttar Pradesh, India;

Corresponding author:

Dr. Arpita Singh, Associate Professor Dr RMLIMS Lucknow, Uttar Pradesh, India;

ABSTRACT

Aim: Evaluation of adverse drug reactions in patients of diabetes mellitus on 1st line Anti-tubercular treatment.

Methods: Patients presenting to the Medicine OPD (Diabetic clinic), and Respiratory medicine OPD, KGMU, on specified days of the week diagnosed to be diabetes mellitus with tuberculosis was screened based on selection criteria. Written informed consent was taken from patients. Demographic details of the participants were recorded in semi-structured proforma. The overall description of the adverse drug effect was done for the selected patients. Seriousness of adverse drug effects were evaluated. Assessment of the severity of adverse drug effects were done. Causality assessment of ADRs was assessed by the WHO-UMC causality assessment system and Naranjo's causality assessment scale. The severity of ADRs was assessed by Hartwig's Severity Assessment and scale.

Results: In our study, incidence of Adverse Drug Reactions (ADRs) in diabetes mellitus patients receiving 1st line antitubercular treatment was 61.82% (68). Out of 110 patients, 68 patients developed a total 83 ADRs. Most common system involved was gastrointestinal system (24, 28.92%) followed by hepatobiliary system (21, 25.30%) and dermatological system (17, 20.48%). Least common system involvement was oto-vestibular, musculoskeletal and urinary system. Most common ADRs were Hepatitis/Jaundice (25.30%), Pruritis/rashes (20.48%) and Nausea/Vomiting (14.46%). Epigastric pain, Diarrhoea, Anemia/thrombocytopenia, Peripheral neuropathy and Headache was reported in 7.23%, 6.02%, 7.23%, 3.60% and 3.60% of the subjects respectively. According to WHO causality assessment scale, majority of ADRs were classified as probable (48, 57.83%). Possible ADRs were found in 33.74% of the subjects. Certain ADRs were found in 2.41% of the subjects. According to Naranjo's causality assessment scale, majority of ADRs were classified as Probable (54, 65.06%). Possible ADRs were found in 30.12% of the subjects. Definite and Doubtful ADRs were reported in 2.41% of the subjects

According to Hartwig's severity assessment level, mild, moderate and severe ADRs were reported in 80.72%, 15.67% and 3.61% of the subjects respectively. According to kappa analysis, the strength of association between Naranjo's causality assessment scale and WHO Causality Assessment scale to assess ADR is good (kappa value: 0.72, p value: 0.008).

International Journal of Health and Clinical Research, 2021;4(6):128-131 e-ISSN: 2590-3241, p-ISSN: 2590-325X

Original Research Article

A comparison of efficacy of tocotrienol and turmeric (curcuma longa) in knee osteoarthritis

Arun Kumar Bharti[1], Arpit Singh[2], Satendra Kumar Singh[3], Devender Katiyar[4*], Amod Kumar Sachan[5]

[1]Junior Resident- III, Department of Pharmacology, KGMU, Lucknow, Uttar Pradesh, India
[2]Associate Professor, Department of Orthopaedics, KGMU, Lucknow, Uttar Pradesh, India
[3]Associate Professor, Centre for Advanced Research, KGMU, Lucknow, Uttar Pradesh, India
[4]Associate Professor, Department of Pharmacology, KGMU, Lucknow, Uttar Pradesh, India
[5]Professor & Head, Department of Pharmacology, KGMU, Lucknow, Uttar Pradesh, India

Received: 07-01-2021 / Revised: 21-02-2021 / Accepted: 19-03-2021

Abstract

Background: Osteoarthritis (OA) is the most prevalent musculoskeletal disorder worldwide and increasingly important in public health concern. The present study was conducted to compare the efficacy of tocotrienol and turmeric (curcuma longa) in osteoarthritis.**Materials & Methods:** 72 patients with OA were divided into 4 groups. Group I-Diclofenac 50 mg (twice a day), Group II- Diclofenac 50 mg + CL 500 mg (twice a day), Group III- Diclofenac 50 mg + Tocotrienol 200mg (twice a day) and Group IV- Diclofenac 50 mg + CL 500 mg + Tocotrienol 200mg (twice a day). Parmacter such as knee pain by VAS, WOMAC score, IL- 1β, SOD were determined.**Results:** All the patients were found to be suffering from Grade 2 and Grade 3 osteoarthritis. Out of 72 patients enrolled in the study, 39 (54.2%) were Grade 2 and rest 33 (45.8%) were Grade 3. Difference in Grade of osteoarthritis among patients of above four groups was not found to be statistically significant (p=0.581).VAS score was significant at day 120 (P< 0.05). A significant WOMAC score at 60 and 120 days (P< 0.05).IL1-β and SOD showed significant difference at day 60, 120 respectively (P< 0.05).**Conclusion:**Combination of standard drug+curcumin+tocotrienol was better at inflammation control by reduction of IL1-β expression than the remaining three However, if we take a single drug into account then tocotrienol was better than the others at curbing the process of inflammation.

Keywords: Osteoarthritis, Curcumin, Tocotrienol

Introduction

Osteoarthritis (OA) is the most prevalent musculoskeletal disorder worldwide and increasingly important in public health concern. It is a degenerative disease with multifactorial etiology characterized by biochemical/morphological alterations in the synovial membrane and joint capsule, and defect in articular cartilage, marginal hypertrophy in bone, subchondral sclerosis[1]. Pathological changes present in the late stage of OA like softening, ulceration, and focal disintegration of the articular cartilage and synovial inflammation[2].The main clinical symptoms are pain, joint instability and stiffness may be experienced due to inactivity. It is also known as degenerative arthritis, which commonly affects the hands, feet, spine, and large joints. Mostly OA have unknown cause and are referred to as primary OA. Generally, OA is commonly related to aging and presents as localized, generalized, or as erosive OA. However, OA at secondary level is caused by another disease or clinical condition [3,4]. The common aetiological factors for OA include age, gender, prior joint injury, obesity, genetic predisposition and mechanical factors. The link between obesity and OA is multifactorial, obesity induces low-grade systemic inflammation caused by the secretion of proinflammatory adipokines and cytokines. The unregulated secretions of these marker are contribute in joint degeneration during OA. Moreover, alteration in genes which encode different interleukins like IL-1A, IL-1B, IL17A, IL6 etc have been reported their association with OA[5].Tocotrienol is a subfamily of vitamin E and known for its wide array of medicinal properties, involved in prevention and treatment of various communicable and non-communicable diseases. Curcumin is also a traditional Indian medicine used in treatment biliary digestive disorder, wounds, and rheumatic diseases. It possesses both anti-inflammatory and antioxidative activities. Curcumin exists as 2 tautomeric forms, keto and enol[5]. The present study was conducted to compared the efficacy of tocotrienol and turmeric (curcuma longa) in osteoarthritis.

*Correspondence
Dr.Devender Katiyar
Associate Professor, Department of Pharmacology, KGMU, Lucknow, Uttar Pradesh, India
E-mail: doctorsmail222@gmail.com

Materials & Methods

The present study comprised of 72 patients of age 45 to 80 years suffering from Osteoarthritis in period of May 2019 to October 2020 were included in this study. All the patients were recruited from the Department of Orthopaedic Surgery, King George's Medical University (KGMU), Lucknow, UP, India, after obtaining ethical approval from the Institutional Ethics Committee.Patients were selected on basis of KL (Kellgren and Lawrence) grading and randomly divided into four groups.Grade1: Doubtful narrowing of joint space and possible osteophyte lipping. Grade2: Definite osteophyte, definite narrowing of joint space. Grade3: Moderate multiple osteophytes, definite narrowing of joint space, some sclerosis and possible deformity of bone contour. Grade4: Large osteophytes, marked narrowing of joint space, severe sclerosis and definite deformity of bone contour physiology of cartilage. After allotment of groups in the study, every patient was received Curcumin extract (CL) 500 mg or Tocotrienol 200 mg or (CL 500mg + tocotrienol 200 mg) as drugs twice a day daily. All curcumin, Tocotrienol was given in form of capsules. The effect on

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

SJIF Impact Factor 4.897

Research Article

ISSN 2394-3211

EJPMR

EVALUATION OF EFFICACY OF INTRA-ARTICULAR TRIAMCINOLONE WITH INTRA-ARTICULAR MORPHINE IN PATIENTS WITH OSTEOARTHRITIS

[1]Dr. Parijat Gupta and [2]*Dr. Devendra Kumar Katiyar

[1]Professor, Department of Orthopaedics, Mayo Institute of Medical Sciences Gadia Barabanki UP, India.
[2]Associate Professor, Department of Pharmacology, King George Medical University, Lucknow, U.P., India.

***Corresponding Author: Dr. Devendra Kumar Katiyar**

Associate Professor, Department of Pharmacology, King George Medical University, Lucknow, U.P., India.

Article Received on 22/04/2019 **Article Revised on 13/05/2019** **Article Accepted on 03/06/2019**

ABSTRACT

Background: Osteoarthritis is a chronic degenerative disorder of multifactorial etiology. The present study was conducted to compare efficacy of intra-articular triamcinolone with intra-articular morphine in management of cases of osteoarthritis. **Materials & Methods:** The present study was conducted on 90 patients of osteoarthritis of both genders. Patients were divided into 3 groups of 30 patients each. Group I received morphine plus bupivacaine intra-articularly, group II received triamcinolone plus bupivacaine intra-articularly, and group III received saline plus bupivacaine intra-articularly. Patients were evaluated before injection and in 2nd, 4th, 6th weeks after injection. **Results:** The mean VAS score in 6.2, 6.8 and 6.7 in group I, II and III respectively at 2nd weeks. It was 2.4, 4.5 and 5.3 in group I, II and III respectively at 4th weeks. It decreased to 1.2, 2.5 and 4.2 in group I, II and III respectively at 6th weeks. The difference was significant ($P < 0.05$). **Conclusion:** Authors found that combination of morphine plus bupivacaine found to be effective as compared to triamcinolone plus bupivacaine and saline plus bupivacaine.

KEYWORDS: Morphine, Osteoarthritis, Triamcinolone.

INTRODUCTION

Osteoarthritis (OA) is a chronic degenerative disorder of multifactorial etiology characterized by loss of articular cartilage, hypertrophy of bone at the margins, subchondral sclerosis and range of biochemical and morphological alterations of the synovial membrane and joint capsule.[1] Pathological changes in the late stage of OA include softening, ulceration and focal disintegration of the articular cartilage; synovial inflammation also may occur. Typical clinical symptoms are pain, particularly after prolonged activity and weight bearing; whereas stiffness is experienced after inactivity.[2] It is probably not a single disease but represents the final end result of various disorders as joint failure. It is also known as degenerative arthritis, which commonly affects the hands, feet, spine, and large weight-bearing joints, such as the hips and knees.[3]

Morphine and endogenous opioids stimulate δ-, κ-, and μ-opioid receptors. βeta-endorphines stimulate sigma, kappa-, and μ-opioid receptors. Activation of all three main receptors has biological effects, which are mediated primarily via central nervous system. After discovery of opioid receptors in peripheral nerve terminals, opioids were administered locally.[4] Antinociceptive and anti-inflammatory effects of morphine have been demonstrated. In chronic arthritis patients, intra-articular morphine injection provides analgesia, which is equivalent to dexamethasone. It is also possible that intra-articular morphine may have some anti-inflammatory actions.[5] The present study was conducted to compare efficacy of intra-articular triamcinolone with intra-articular morphine in management of cases of osteoarthritis.

MATERIALS AND METHODS

The present study was conducted in the Department of Pharmacology. It comprised of 90 patients of osteoarthritis of both genders. Ethical approval was obtained from institute prior to the study. All were informed regarding the study and written consent was obtained.

General information such as name, age, gender etc. was recorded. Patients were divided into 3 groups of 30 patients each. Group I received morphine plus bupivacaine intra-articularly, group II received triamcinolone plus bupivacaine intra-articularly, and group III received saline plus bupivacaine intra-articularly. Patients were evaluated before injection and in 2nd, 4th, 6th weeks after injection. Results were tabulated and subjected to statistical analysis. P value less than 0.05 was considered significant.

Medicinal Impact of Piper- Nigrum (Piperine) Against Arsenic Induced Hepatic and Renal Toxicity in Experimental Mice.

Manish Kumar Singh[1], Devendra Katiyar[2]

[1]Department of Biochemistry, Government Medical College Badaun - 243601 (UP), India.
[2]Department of Pharmacology, King George Medical University, Lucknow - 226 003 (UP), India.

Received: April 2019
Accepted: May 2019

ABSTRACT

Background: In view of the increasing risk of arsenic on human health, the present study has been carried out to investigate the hepato-protective effect of piperine on arsenic induced-hepatic and renal toxicity in mice. Various oxidative stress parameter, antioxidant level and micro nutrients were analyses in hepatic and hepatic renal organ of mice. **Methods:** Mice exposed arsenic (sodium arsenate 5 mg/kg body weight p.o. for 45 days) caused a significant increases oxidative stress in hepatic and renal tissue as compared to controls group. **Results:** Abnormal levels of arsenic in hepatic and renal tissue increased the levels of ROS, LPO, and decreased the levels of GSH with SOD, CAT, and GPx activities in the hepatic and renal tissue of mice as compared to controls. Co-treatment of arsenic with piperine (1.5 mg/kg body weight p.o. for 45 days) decreased the levels of ROS, LPO, and increased the level of GSH, also increased SOD, CAT, and GPx activity and showed improvements in hepatic and renal tissue of mice as compared to arsenic-treated groups. **Conclusion:** Our results proved that piperine worked as antioxidant, anti- inflammatory in nature.

Keywords: Hepatic toxicity, renal toxicity, Piperine.

INTRODUCTION

Millions of people around the globe are exposed to unsafe levels of arsenic due to consumption of contaminated drinking water. Its sub-toxic levels may not be fatal, but the accumulation of lower levels of arsenic for a longer period of time leads to chronic exposure and cause adverse health effects, including metabolic disorders [Pace et al., 2018; Spratlen et al.,2018]. The toxic effect of arsenic has been found to be increased in malnourished population as they are mainly depends on the available water contaminated with arsenic [Zablotska et al. 2008]. Both the USEPA and the World Health Organization have adopted drinking water standard of 10µg/L (10ppb) [WHO and USEPA, 2017].

High levels of arsenic has been reported in three districts Ballia, Varansi and Gazipur of Uttar Pradesh in the upper and middle Ganga plain, India [Ahamed et al.,2006]. The soluble salts of arsenic including arsenate or arsenite are well absorbed (80%) through the gastrointestinal tract and cause health effects in individuals. Further, individuals suffers from arsenicosis have high risk to develop other health related disorders including cardiovascular, hepatic, renal, gastrointestinal, neurological and reproductive problems and malignancies [Brinkel et al.,2009; Kapaj et al.,2006].

Due to the accumulative properties of arsenic, deposition of high concentrations of arsenic in the liver, kidney, lungs, hair and nails have been well reported as a result of chronic exposure [Klaassen., 1996]. In view of increasing risk of chronic arsenic toxicity, the World Health Organization has lowered the permissible limit of arsenic in drinking water from 50 µg/L to 10 µg/L [WHO., 2001].

The metabolic function of the liver is primarily responsible for detoxification of toxins and carcinogens. Drug induced liver injury may manifest as acute hepatitis, cholestasis, and further develop as liver cirrhosis. Reactive oxygen species (ROS) generated by metabolic intermediates of xenobiotics via induction of CYP450 families as well as activated inflammatory cells through NADPH oxidases promote the accumulation of lipid derived oxidation products that cause liver injury, resulting in cell necrosis [Liu et al.,2000]. Liver is a versatile organ of the body that regulates internal chemical environment. Liver injury induced by various

Name & Address of Corresponding Author
Dr. Devendra Katiyar
Professor
Department of Pharmacology and Therapeutic
King George's Medical University
Lucknow – 226 003, India

Chapter

Surgery for Graves' Disease

Kul Ranjan Singh and Anand Kumar Mishra

Abstract

Graves' Disease (GD) is the commonest cause of hyperthyroidism followed by toxic nodular goitre. Patients presenting as goitre with clinical features of hyperthyroidism are to be carefully evaluated with biochemically with thyroid stimulating hormone (TSH), free thyroxine (fT4) and radionuclide scan (Technitium-99/Iodine-123). Those with GD also have raised thyroid receptor stimulating antibody levels. Patients are simultaneously evaluated for eye disease and managed accordingly. Initial treatment is rendering patient euthyroid using anti thyroid drugs (ATD) and if remission does not occur either continue medical therapy or proceed for definitive therapy by radioactive iodine ablation (RAI) or surgery. In last decades there is ample literature preferring surgery as preferred definitive therapy. Surgery in thyroid disease has become safer with development of many intra-operative adjuncts but it should be performed by high volume thyroid surgeon. The procedure of choice is near total or total thyroidectomy as it avoids recurrences. Patients who are not eligible or willing for surgery can be managed with RAI.

Keywords: hyperthyroidism, Graves' Disease, thyroidectomy, radioactive iodine

1. Introduction

Graves' Disease (GD) is the commonest cause of hyperthyroidism world over representing more than 50% of hyperthyroid patients [1]. A woman is 7–10 times more likely to be affected by it [2]. The incidence of autoimmune thyroid diseases like GD and Hashimoto's thyroiditis is on the rise in tropical countries probably due to environmental immunological factors [3]. GD has systemic manifestations. Eyes's are involved to variable extent in more than half the patients. Treatment aims to restore to the thyroid hormones to normal levels along with achieving remission and care of ophthalmological manifestations. Anti-thyroid drugs (ATD), Radioactive Iodine (RAI) and surgery are the current modalities of treatment [1]. They have their unique indications, advantages, disadvantages and complications. ATD are the usual first line of treatment. Relapsing patients or GD with certain co existing conditions may require a definitive treatment. RAI or surgery are indicated in such patients. The choice of definitive therapy depends on the patient and treating physician. Patients involvement in decision making has been associated with increased patients satisfaction [4, 5].

2. Epidemiology and pathogenesis

The peak incidence of GD is observed between 30 to 50 years of age. Annual reported incidence of GD is 50 and of ophthalmopathy is 16 per 100000 population.

Orbital imaging if performed in all patients of GD will reveal changes of ophthalmopathy in upto 70% of patients. Approximately 3% of women and 0.5% of men during their life time can develop GD [6].

GD is an organ specific auto immune disease caused by thyroid stimulating hormone receptor (TSHR) circulating stimulating auto antibodies. The TSHR stimulating antibody binds to leucine rich extracellular domain of TSHR on surface of thyrocytes and orbital fibroblasts and IGF1 receptors. After binding it increases production of intracellular cyclic AMP causing thyrocyte growth and increased thyroid hormone production.

3. Diagnosis

Measurement of Free T4/Free T3 and TSH is the initial diagnostic test. In overt hyperthyroidism FT4 and FT3 are elevated but in milder hyperthyroidism FT4 may be normal with only FT3 elevation. TSH R antibody is sensitive (97%) and specific (98%) tool for accurate diagnosis of GD [7]. High resolution ultrasound reveals diffuse goiter and hypoechogenicity. Diagnosis is confirmed by thyroid scintigraphy by Tc ^{99} pertechnatate or I ^{123} scintigraphy. Scintigraphy is definitely needed for diagnosis.

4. Treatment options

Anti-thyroid drugs (ATD) are used in the initial management of GD with aim to achieve euthyroidism. Once patient is euthyroid it should be maintained to achieve remission. About half of the patients go into remission after 18 to 24 months of treatment with ATD. Patients without remission and recurrent disease (30–40% in the first 12 months and approximately 50–60% in long term) require definitive therapy. Definitive therapy is either surgical or medical ablation of all thyrocytes. The options are radioactive iodine (RIA) or thyroidectomy. After ablative therapy thyroid hormone replacement is provided to control hypothyroidism. There are reports of use of long term ATD to achieve remission. Choice between RIA and thyroidectomy are influenced by physician, patient, institutional and geographical beliefs and practice patterns. The most "effective" therapy for both physician's and patient perspective will be which will provide rapid euthyroidism and prevent recurrences.

Early and rapid euthyroidism is desirable in all GD patients as it decreases mortality and halts eye disease progression. In a retrospective cohort study of 4189 GD patients regardless of the method of treatment, low TSH at 1 year following GD diagnosis was associated with a 55% increase in cardiovascular mortality (atrial fibrillation, heart failure, pulmonary hypertension, angina pectoris, and stroke) [8]. Lillevang et al. in a cohort study of 235,547 individual investigated association between hyperthyroidism and mortality in both treated and untreated groups and concluded that decreased TSH increases mortality in both groups and with every duration of 6 months of suppressed TSH was associated with 11–13% increase in total mortality [9]. Dale et al. found that even transient hypothyroidism during treatment was associated with greater weight-gain during medical treatment in 162 consecutive hyperthyroid patients [10]. Even consensus statement of the European Group on Graves' orbitopathy (EUGOGO) recommends avoidance of hypothyroidism as it can cause exacerbation of thyroid eye disease [11].

Thyroidectomy is the only modality of treatment which can provide both rapid euthyroidism and prevent recurrence. There are reports of RAI worsening GD ophthalmopathy [12, 13]. In a systematic review of literature between 2001 and 2011which included retrospective and prospective studies (14,245 patients) on the

comparison of RAI and surgery as best definitive treatment for GD, reported surgery to be 3.44 times more likely to be successful than RAI ($P < .001$). And total thyroidectomy (TT) was 95.45 times more successful than RAI ($P < .001$) and concluded thyroidectomy as the most successful modality for the management of GD [14].

5. Thyroidectomy

Thyroidectomy has been performed for GD since 19th century. However, the earlier years were fraught with significant morbidity and mortality. Introduction of RAI resulted in a rapid decline in popularity of thyroidectomy for GD. Improvements in medical management and refinements in surgical techniques along with knowledge of long term effects of RAI has renewed interests in surgery and it is re gaining the lost grounds [15–17].

6. Indications for surgery

Surgery is the treatment of choice in those with compressive symptoms attributable to goiter, large goiters, presence/suspicion of co-existing malignancy, GD with non-malignant nodule with no/reduced uptake of RAI which is large in size, co-existing parathyroid pathology. Those lactating, pregnant or desirous of pregnancy within next 6 months and presence of significant active ophthalmopathy are advised surgery [5, 18–20]. Pediatric patients failing ATD are more likely to undergo thyroidectomy compared to RAI [21]. Intolerance/non-compliance to ATD, patient preference is an indication in themselves for surgery as treatment of choice.

Indications of thyroidectomy in GD patients include following (6C's):

1. ATD **C**ontraindicated: Difficulty with adequate hormonal control on medications, or Intolerance, or recurrence after ATD treatment

2. RAI **C**ontraindicated: pregnant and nursing women, Large goiter with or without compressive symptoms (dysphagia, dysphonia, dyspnoea), Relatively low uptake of RAI, associated thyroid nodule with confirmed or suspected thyroid malignancy,

3. **C**oexisting moderate-to-severe active Graves' orbitopathy

4. Associated **C**oexiting disease: periodic paralysis

5. Other **C**onditions: Young or pediatric patients, women planning a pregnancy within 6 months, refusal or lack of facilities for RAI, individual preference for surgery

6. **C**igrette Smokers (increased risk of exacerbation of eye disease after definitive treatment with radioactive iodine).

7. Advantages of surgery

Surgery is considered the most effective treatment for GD. It results in prompt control of hyperthyroidism. Co-existing thyroid nodules a subset of which may be harboring malignancy are treated concurrently by surgery [22]. Surgery is said to have

the best ophthalmological outcome in ophthalmopathy compared to ATD and RAI although these observations are based on expert opinion or non-randomized clinical trials [23–27]. Recurrence has been seen both after ATD and RAI with the former having a significantly higher recurrence rate. Though the recurrence rates after RAI and surgery are not significantly different, multiple doses of RAI may be required for cure in a given patient [23]. In a meta-analysis involving 1402 patients across 5 continents, surgery had the lowest recurrence rates even though a sub total thyroidectomy was the procedure performed in those with available surgical records [27]. More over surgery avoids the long-term systemic side effects of ATD and radiation exposure of RAI. Though a matter of debate, patients having chosen surgery as a definitive treatment are likely to be more satisfied compared to RAI [5, 28]. Patients preference should always be taken into consideration. Patients are likely to browse the internet for more information. However, the both reliability and comprehension of available information is occasionally questionable [29]. Hence, the treating physician should make available to the patient pertinent information so that patient can make an un biased decision which will further improve compliance and satisfaction to treatment.

8. Geographic variability in preferred treatment options

There are wide variations in the preferred first line treatment for GD. The choice is culmination of patient and physician preference along with disease status. In the US, RAI is likely to be the primary therapy though its popularity is decreasing. ATD are preferred in Latin America, Europe and Japan [30, 31]. Popularity of ATD has also surpassed RAI in New Zealand [32]. Once again ATD are the favored first line treatment in middle east and north African regions. Also, the physician practices were found to be that between European and American preferences, probably attributed to their training and affiliations [33].

9. Peri operative management

Imaging of thyroid is essential, and ultrasonography is useful. It aids in surgical planning and presence of nodule(s) mandates a fine needle aspiration cytology before surgery. Contrast enhanced CT scan (CECT) may be required for large goiters. Euthyroid state should be achieved in all patients before surgery [30]. This is achieved by ATD which is continued till the morning of surgery. Tachycardia if present is controlled by institution on beta blockers. The role of pre-operative Iodine solution remains controversial but the authors favor same [34]. Lugols Iodine/collosal Iodine/SSKI is given thrice a day for 7–12 days prior to surgery. Iodine has been shown to decrease the vascularity the thyroid and makes the gland firmer. These changes aid the surgeon [35]. Guidelines suggested by various professional bodies aid in management and peri operative preparation of hyperthyroid patients of which American Thyroid Association (ATA) seems to be most commonly followed. However, a study by Siddique Akram et al. found that adherence to ATA guidelines did not impact the outcome significantly but for increased intra operative tachycardia in patient not following ATA guidelines [36]. In fact, almost 28% of the cohort remained hyperthyroid at the time of surgery but no adverse impact was noted. Pre-operative vit D deficiency may result in higher incidence of post thyroidectomy hypocalcemia [37]. Vit D and calcium may be supplemented in pre-operative period to reduce the incidence of post-surgery hypocalcemia [38, 39]. However unpublished data from authors have not shown any advantage of supplementation in reducing post TT hypocalcemia.

Surgery is best performed by a high-volume surgeon in a specialized unit for best outcome [40]. Surgical adjuncts may be utilized as per need, availability, cost constraints and surgeon preference. Meticulous surgery parathyroid vascularity is of prime importance in bettering outcomes. Parathyroid auto transplantation after inadvertent injury or excision results in increased occurrence of temporary hypocalcemia but not permanent hypocalcemia [41].

Post thyroidectomy, patients are kept under observation for development of hypocalcemia or risk of bleed. These were traditionally said to occur at a higher incidence after surgery performed for GD [41]. Hungry bone syndrome, Vitamin D deficiency, female sex are factors that have been associated with apparent higher incidence of post TT hypocalcemia in GD. However, recent studies have concluded that hypocalcemia and post thyroidectomy bleed do not occur at a significantly higher rate in GD [42]. Post TT PTH may be evaluated as per institutional protocols to predict hypocalcemia and plan early discharge. PTH gradient is said to better predict hypocalcemia than any single value. Same day safe discharge of patients is feasible for GD after surgery with no adverse outcomes [43]. ATD are discontinued and Beta blockers if prescribed are tapered gradually in the post-operative period. Thyroxine supplement is started between POD1–7 at a dose if 1.6–2.1 microgram/Kg.

10. Rapid preparation for Graves surgery

Patients are usually rendered euthyroid by ATD to reduce peri operative complications with thyroid storm being the most dreaded one. However, a subset of patients may require urgent/emergent surgery in view of significant compression, intolerance of drugs or failure of drugs. Such patients may be subjected to a rapid preparation protocol where in two or more of dexamethasone, beta blocker, sodium iopodate, iopanoic acid, collosal/lugols Iodine, cholestyramine, iodinated radiographic contrast agent, lithium and ATD if tolerated are used for 10–12 days prior to anticipated surgery. No significantly increased morbidity has been reported after surgery in the rapidly prepared patients and this strategy is required and is feasible in a subset of patients [44–46]. The occurrence of thyroid storm is rare and biochemically hyperthyroid patients may undergo thyroidectomy safely if the surgeon and anesthetist are comfortable [47]. However, the consensus remains that the outcome is best when surgery is performed on a euthyroid patient.

11. Choice of surgical procedure

Bilateral subtotal thyroidectomy (STT), Dunhill procedure (DP), near total thyroidectomy (NTT) and total thyroidectomy (TT) are the four procedures that have been or are being performed for GD. STT, DP, NTT were the procedure of choice till 21st century due to said higher incidence of hypoparathyroidism, nerve damage or hematoma [15]. However, these have not been verified in recent large studies or meta-analysis [48]. A retrospective cohort study 8032 patients of benign thyroid disease having undergone STT or TT found no difference in temporary of permanent nerve damage and permanent hypoparathyroidism though temporary hypocalcemia was significantly higher in TT compared to TT (13.12% Vs. 2.7%) [49]. A similar trend has been seen in most other studies. TT for GD has been found to have lower rates of recurrent hyperthyroidism compared to other procedures (STT more than DP) [17, 50]. The nerve damage rates have been higher however hypocalcemia rates have been slightly higher though they do not reach statistical

significance [50]. The choice of surgical procedure did not have a difference in their effect on Graves' ophthalmopathy [17, 50]. RAI with steroid cover was found to be not inferior to surgery. The TT performed by trained surgeons at high volume center have no higher rates of these morbid complications. More and more TT are now being performed for benign diseases throughout world. Thomas WT et al. in an analysis of nationwide in patient analysis in US noted an increase in TT for benign diseases from 17.6% in 1993–1997 to 39.6 in 2003–2007 [51]. This trend is seen across the globe even in less developed regions [40, 52]. However TT may be avoided in in situations where lifelong thyroxine supplements may be un reliable, more common in the lesser developed countries [3]. Never the less, 2016 ATA guidelines for Hyperthyroidism suggest that a NTT of TT should be performed for GD if surgery is being contemplated [30].

12. Disadvantages of surgery

Patients would require lifelong thyroxine replacement after thyroidectomy and compliance may be an issue in some. Also, potential risk of permanent hypoparathyroidism and recurrent laryngeal nerve damage or neck hematoma are present. However, in trained hands, their incidence is no higher than after surgery for euthyroid goiters. Vis a vis ATD and RAI, surgery is the least cost effective first line treatment of Graves' Disease [53, 54]. In recurrent GD after ATT, surgery was more cost effective than RAI or lifelong ATD to a large extent [55]. The cost implications are likely to vary across the globe depending on various factors.

13. Surgical approach to thyroid

Though conventionally, open thyroidectomy through a transverse collar incision is the standard of care, heightened cosmetic demands of patients along with refinements in surgical instruments and surgical training has resulted in significant shift favoring minimally invasive procedures. Meta-analysis of 846 cases between 1999–2011 by Zhang et al. concluded that endoscopic thyroidectomy provides better cosmetic satisfaction along with lesser blood loss at the expense of higher costs and operative time with acceptable rates of hypocalcemia and nerve compromise [56].

Robotic surgery is now a feasible option for Graves' Disease with comparable complication rates [57]. Also, larger glands can be excised via robotic technique. Retrospective analysis of 44 robotic TT via bilateral axillo- breast approach was no inferior when compared to 144 cases of open thyroidectomy in terms of recurrence, hypocalcemia and nerve damage on prolonged follow up of 35 months [58]. This is now a valid option for those concerned about cosmesis.

14. Conclusion

Etiology of hyperthyroidism has to be determined thoroughly to determine the line of management. Radioactive iodine ablation (RAI) or surgery is the main modality of treatment in GD. Anti-thyroid drug is essential to make the patient euthyroid prior to definitive therapy. Prompt discussion with patients regarding delayed outcome and retreatment in those who opt for RAI is mandatory. Surgical treatment of choice in the form of NTT or TT ought to be performed in a high-volume centre to reduce complication and recurrence. Toxic adenoma and TMNG are managed similarly to GD i.e., rendering euthyroid with ATDs, followed by

definitive therapy. Extent of surgery in toxic solitary adenoma depends on radiology, nuclear imaging after malignancy is ruled out. Newer ablative therapies like RFA, EA, LTA are considered as a substitute for definitive therapy in selective patients. Nonetheless malignancy should always be treated by surgery.

Conflict of interest

"The authors declare no conflict of interest."

Author details

Kul Ranjan Singh and Anand Kumar Mishra*
Department of Endocrine Surgery, King George's Medical University, Lucknow, U.P., India

*Address all correspondence to: mishra101@gmail com

References

[1] Terry J. Smith LH. Graves' Disease. N Engl Med. 2016;375(16):1552-1565.

[2] Nayak B, Hodak SP. Hyperthyroidism. Endocrinol Metab Clin North Am. 2007;36(3):617-656.

[3] Watters DA WJ. Thyroid surgery in the tropics. ANZ J Surg. 77(11):933-40.

[4] Hookham J, Truran P, Allahabadia A BS. Patients' perceptions and views of surgery and radioiodine ablation in the definitive management of Graves' disease. Postgr Med J. 2017;93(1099):266-270.

[5] Hookham J, Truran P, Allahabadia A, Balasubramanian SP. Patients ' perceptions and views of surgery and radioiodine ablation in the de fi nitive management of Graves ' disease. 2017;266-270.

[6] Bartalena L, Tanda ML. Graves'ophthalmopathy. N Eng J Med 2009;360:994-1001

[7] Kahaly GJ, Olivo PD. Graves' disease. N Eng J Med 2017;376:184

[8] Okosieme OE, Taylor PN, Evans C, Thayer D, Chai A, Khan I, Draman MS, Tennant B, Geen J, Sayers A, French R, Lazarus JH, Premawardhana LD, Dayan CM Primary therapy of Graves' disease and cardiovascular morbidity and mortality: a linked-record cohort study. Lancet Diabetes Endocrinol. 2019 Apr; 7(4):278-287.

[9] Lillevang-Johansen M, Abrahamsen B, Jørgensen HL, Brix TH, Hegedüs L Excess Mortality in Treated and Untreated Hyperthyroidism Is Related to Cumulative Periods of Low Serum TSH. J Clin Endocrinol Metab. 2017 Jul 1; 102(7):2301-2309.

[10] Dale J, Daykin J, Holder R, Sheppard MC, Franklyn JA. Weight gain following treatment of hyperthyroidism. Clin Endocrinol (Oxf). 2001 Aug; 55(2):233-239

[11] Bartalena L, Baldeschi L, Dickinson A, Eckstein A, Kendall-Taylor P, Marcocci C, et al, Consensus statement of the European Group on Graves' orbitopathy (EUGOGO) on management of GO.. Eur J Endocrinol. 2008 Mar; 158(3):273-285

[12] Bartalena L, Marcocci C, Bogazzi F, et al. Relation between therapy for hyperthyroidism and the course of Graves' ophthalmopathy. N Engl J Med. 1998;338:73-78 [PubMed] [Google Scholar]

[13] Tallstedt L, Lundell G, Torring O, et al. Occurrence of ophthalmopathy after treatment for Graves' hyperthyroidism. The Thyroid Study Group. N Engl J Med. 1992;326:1733-1738 [PubMed] [Google Scholar]

[14] Genovese BM, Noureldine SI, Gleeson EM, Tufano RP, Kandil E. What is the best definitive treatment for Graves' disease? A systematic review of the existing literature. Ann Surg Oncol. 2013;20:660-667.

[15] Bobanga ID, McHenry CR. Treatment of patients with Graves' disease and the appropriate extent of thyroidectomy. Best Pract Res Clin Endocrinol Metab [Internet]. 2019;33(4):101319. Available from: https://doi.org/10.1016/j.beem.2019.101319

[16] Kitahara CM, Berrington De Gonzalez A, Bouville A, Brill AB, Doody MM, Melo DR, et al. Association of Radioactive Iodine Treatment with Cancer Mortality in Patients with Hyperthyroidism. JAMA Intern Med. 2019;179(8):1034-1042.

[17] Stålberg, P., Svensson, A., Hessman O et al. Surgical Treatment of Graves'

Disease: Evidence-Based Approach. World J Surg. 2008;32:1269-1277.

[18] Stathopoulos P, Gangidi S, Kotrotsos G, Cunliffe D. Graves' disease: A review of surgical indications, management, and complications in a cohort of 59 patients. Int J Oral Maxillofac Surg [Internet]. 2015;44(6):713-717. Available from: http://dx.doi.org/10.1016/j.ijom.2015.02.007

[19] Zhang L, Li J, Tian Q, Liu S, Zhang H, Liu S, et al. Follow-up and evaluation of the pregnancy outcome in women of reproductive age with Graves ' disease after 131 Iodine treatment. 2016;57(6):702-8.

[20] Léger J, Oliver I, Rodrigue D, Lambert AS, Coutant R. Graves' disease in children. Ann Endocrinol (Paris) [Internet]. 2018;79(6):647-55. Available from: https://doi.org/10.1016/j.ando.2018.08.001

[21] Staniforth JUL, Erdirimanne S, Eslick GD. Thyroid carcinoma in Graves' disease: A meta-analysis. Int J Surg [Internet]. 2016;27(2016):118-125. Available from: http://dx.doi.org/10.1016/j.ijsu.2015.11.027

[22] Shi HH MC. Coexistent thyroid nodules in patients with graves' disease: What is the frequency and the risk of malignancy. Am J Surg. 216(5):980-4.

[23] De Bellis A, Conzo G, Cennamo G, Pane E, Bellastella G, Colella C, Iacovo AD, Paglionico VA, Sinisi AA, Wall JR, Bizzarro A BA. Time course of Graves' ophthalmopathy after total thyroidectomy alone or followed by radioiodine therapy: a 2-year longitudinal study. Endocrine. 2012;41(2):320-326.

[24] Bartalena L. The dilemma of how to manage Graves' hyperthyroidism in patients with associated orbitopathy. J Clin Endocrinol Metab. 2011;96(3):592-599.

[25] Burch HB, Cooper DS. Management of graves disease a review. JAMA - J Am Med Assoc. 2015;314(23):2544-2554.

[26] Genovese BM, Noureldine SI, Gleeson EM, Tufano RP KE. What is the best definitive treatment for Graves' disease? A systematic review of the existing literature. Ann Surg Oncol. 20(2):660-7.

[27] Sundaresh V, Brito JP, Wang Z, Prokop LJ, Stan MN, Murad MH, et al. Comparative effectiveness of therapies for graves' hyperthyroidism: A systematic review and network meta-A nalysis. J Clin Endocrinol Metab. 2013;98(9):3671-3677.

[28] Törring O, Watt T, Sjölin G, Byström K, Abraham-Nordling M, Calissendorff J, Cramon PK, Filipsson Nyström H, Hallengren B, Holmberg M, Khamisi S, Lantz M WG. No Title. Impair Qual Life After Radioiodine Ther Comp to Antithyroid Drugs or Surg Treat Graves' Hyperthyroidism A Long-Term Follow with Thyroid Patient-Reported Outcome Quest 36-Item Short Form Heal Status . 29(3):322-31.

[29] Purdy AC, Idriss A, Ahern S, Lin E ED. Dr Google: The readability and accuracy of patient education websites for Graves' disease treatment. Surgery. 162(5):1148-54.

[30] Ross DS, Burch HB, Cooper DS, Greenlee MC, Laurberg P, Maia AL, et al. 2016 American Thyroid Association Guidelines for Diagnosis and Management of Hyperthyroidism and Other Causes of Thyrotoxicosis. Thyroid. 2016;26(10):1343-1421.

[31] Unless R, Act P, Rose W, If T, Rose W. This is a repository copy of Variation in the use of definitive treatment options in the management of Graves ' disease : a UK clinician survey. White Rose Research Online URL for this paper : Version : Accepted Version Article : Hookham , J ., Collins ,. 2016;

[32] Cox SC, Tamatea JA, Conaglen JV EM. The management of Graves' disease in New Zealand 2014. N Z Med J.

[33] Beshyah SA, Khalil AB, Sherif IH, Benbarka MM, Raza SA, Hussein W, Alzahrani AS C. A SURVEY OF CLINICAL PRACTICE PATTERNS IN MANAGEMENT OF GRAVES DISEASE IN THE MIDDLE EAST AND NORTH AFRICA. Endocr Pr. 23(3):299-308.

[34] Mercier F, Bonal M, Fanget F, Maillard L, Laplace N, Peix JL, et al. Does Surgery Without Lugol's Solution Pretreatment for Graves' Disease Increase Surgical Morbidity? World J Surg [Internet]. 2018;42(7):2123-6. Available from: https://doi.org/10.1007/s00268-017-4443-3

[35] Calissendorff J, Falhammar H. Lugol's solution and other iodide preparations: perspectives and research directions in Graves' disease. Endocrine. 2017;58(3):467-473.

[36] Akram S, Elfenbein DM, Chen H, Schneider DF, Sippel RS. Assessing American Thyroid Association Guidelines for Total Thyroidectomy in Graves' Disease. J Surg Res [Internet]. 2020;245:64-71. Available from: https://doi.org/10.1016/j.jss.2019.07.029

[37] Tripathi M, Karwasra RK, Parshad S. Effect of preoperative vitamin D deficiency on postoperative hypocalcemia after thyroid surgery. Thyroid Res. 2014;7(1):4-9.

[38] Maxwell AK, Shonka DC, Robinson DJ, Levine PA. Association of preoperative calcium and calcitriol therapy with postoperative hypocalcemia after total thyroidectomy. JAMA Otolaryngol - Head Neck Surg. 2017;143(7):679-684.

[39] Jaan S, Sehgal A, Wani R, Wani M, Wani K, Laway B. Usefulness of pre-and post-operative calcium and Vitamin D supplementation in prevention of hypocalcemia after total thyroidectomy: A randomized controlled trial. Indian J Endocrinol Metab. 2017;21(1):51-55.

[40] Corvilain B, Hamy A, Brunaud L, Borson-Chazot F, Orgiazzi J, Bensalem Hachmi L, et al. Treatment of adult Graves' disease. Ann Endocrinol (Paris). 2018;79(6):618-635.

[41] Al Qubaisi M, Haigh PI. Hypocalcemia after Total Thyroidectomy in Graves Disease. Perm J. 2019;23:1-4.

[42] Kwon H. Increased risk of postoperative complications after total thyroidectomy with Graves ' disease. 2018;(December 2017):281-5.

[43] Mallick R, Asban A, Chung S, Hur J, Lindeman B CH. To admit or not to admit? Experience with outpatient thyroidectomy for Graves' disease in a high-volume tertiary care center. Am J Surg. 216(5):985-9.

[44] Ali A, Debono M, Balasubramanian SP. Outcomes After Urgent Thyroidectomy Following Rapid Control of Thyrotoxicosis in Graves' Disease are Similar to Those After Elective Surgery in Well-Controlled Disease. World J Surg [Internet]. 2019;43(12):3051-8. Available from: https://doi.org/10.1007/s00268-019-05125-5

[45] Nair GC, Babu MJC, Menon R, Jacob P. Preoperative preparation of hyperthyroidism for thyroidectomy - Role of supersaturated iodine and lithium carbonate. Indian J Endocrinol Metab. 2018;22(3):392-396.

[46] Panzer C, Beazley R, Braverman L. Rapid Preoperative Preparation for Severe Hyperthyroid Graves' Disease. J Clin Endocrinol Metab. 2004;89(5):2142-2144.

[47] Al Jassim A, Wallace T, Bouhabel S, Majdan A, Hier M, Forest VI, et al.

A retrospective cohort study: Do patients with graves' disease need to be euthyroid prior to surgery? J Otolaryngol - Head Neck Surg. 2018;47(1):3-7.

[48] Maurer E, Maschuw K, Reuss A, Zieren HU, Zielke A, Goretzki P, et al. Total Versus Near-Total Thyroidectomy in Graves Disease: Results of the Randomized Controlled Multicenter TONIG-trial. Ann Surg. 2019;270(5):755-761.

[49] Barczyński M, Konturek A, Stopa M, Cichoń S, Richter P NW. Total thyroidectomy for benign thyroid disease: is it really worthwhile? Ann Surg. 254(5):724-9.

[50] Liu ZW, Masterson L, Fish B, Jani P, Chatterjee K. Thyroid surgery for Graves' disease and Graves' ophthalmopathy. Cochrane Database Syst Rev. 2015;2015(11).

[51] Ho TW, Shaheen AA, Dixon E HA. Utilization of thyroidectomy for benign disease in the United States: a 15-year population-based study. Am J Surg. 201(5):570-4.

[52] Hu J, Zhao N, Kong R, Wang D, Sun B, Wu L. Total thyroidectomy as primary surgical management for thyroid disease: Surgical therapy experience from 5559 thyroidectomies in a less-developed region. World J Surg Oncol [Internet]. 2016;14(1):1-7. Available from: http://dx.doi.org/10.1186/s12957-016-0772-1

[53] Cooper DS. Hyperthyroidism. 2003;

[54] Donovan PJ, McLeod DSA, Little R, Gordon L. Cost-utility analysis comparing radioactive iodine, anti-Thyroid drugs and total thyroidectomy for primary treatment of Graves' disease. Eur J Endocrinol. 2016;175(6):595-603.

[55] In H, Pearce EN, Wong AK, Burgess JF, McAneny DB, Rosen JE. Treatment Options for Graves Disease: A Cost-Effectiveness Analysis. J Am Coll Surg [Internet]. 2009;209(2):170-179.e2. Available from: http://dx.doi.org/10.1016/j.jamcollsurg.2009.03.025

[56] Zhang Y, Dong Z, Li J, Yang J, Yang W, Wang C. Comparison of endoscopic and conventional open thyroidectomy for Graves' disease: A meta-analysis. Int J Surg [Internet]. 2017;40(2017):52-59. Available from: http://dx.doi.org/10.1016/j.ijsu.2017.02.054

[57] Garstka M, Kandil E, Saparova L, Bechara M, Green R, Haddad AB, Kang SW AP. Surgery for Graves' disease in the era of robotic-assisted surgery: a study of safety and feasibility in the Western population. Langenbecks Arch Surg. 2018;403(7):891-896.

[58] Kwon H, Yi JW, Song RY, Chai YJ, Kim SJ, Choi JY, et al. Comparison of Bilateral Axillo-Breast Approach Robotic Thyroidectomy with Open Thyroidectomy for Graves' Disease. World J Surg. 2016;40(3):498-504.

SYMPOSIUM 1.Challenges for Indian "Teachers of Psychiatry" (iTOP)

Presenters and titles of presentations:

1) Mohan Isaac (Professor of Psychiatry, The University of Western Australia and Visiting Professor, NIMHANS, Bangalore) – "The Journey of IToP Forum- A Birds Eye View "
2) M V Ashok (Professor of Psychiatry, St John's Medical College, Bangalore) – "Challenges with MCI in India"
3) M Kishor (Associate Professor of Psychiatry, JSS Medical College, and Mysore) – "The Success story & issues of distress with IToP initiatives"

Since 2013 there have been efforts to bring together teachers of psychiatry from various medical colleges across the country. During every ANCIPS since then, various issues and challenges of both undergraduate and postgraduate training have been presented and discussed by the authors. The initiatives led to the starting / inauguration of a forum of "Indian Teachers of Psychiatry" (IToP) in 2016 with the active participation of Indian Psychiatry Society, the Medical Education Department of a medical college namely St John's Medical College, Bangalore which runs a Medical Council of India Regional Training Centre for medical teachers and the Rajiv Gandhi University of Health Sciences, Karnataka. The program was attended by heads of various departments of psychiatry including NIMHANS. This was also followed by a one day training workshop on Teaching Psychiatry to Undergraduates. Indian Teachers of Psychiatry (IToP) forum since 2013 has continued active online and offline activities. The Initiative bagged the 2018 International Neuropsychiatry Association T S Srinivasan Award in the segment of public health. The prize money has been donated to Trust and an annual "IToP Minds United Award " for the best work in undergraduate psychiatry initiated from 2018. The Indian Teachers of Psychiatry (IToP) initiative firmly backs the National Mental Health Policy and the National Mental Health Programme that envisages improved mental health care at the general health services, delivered by mental health informed and sensitized general doctors, supported by psychiatrists. This can be achieved only if the undergraduate teaching of psychiatry is uniformly improved and strengthened in all medical colleges in the country and the quality and standards of postgraduate training in psychiatry is maintained / enhanced at all centres.
The three presentations in this symposium will critically discuss the journey of iToP so far & comment on the challenges ahead.

SYMPOSIUM 2. PSYCHIATRIC ADVANCE DIRECTIVES: CHALLENGES AND POSSIBLE SOLUTIONS

Speakers: Dr. N.M Patil, Dr. Sameeran Chate, Dr. Bheemsain Tekkalaki
Department of Psychiatry J.N. Medical College, Belagavi, Karnataka.

Psychiatric Advance directives (PAD) have been introduced into the Mental Health Care Act 2017.

The discussions over the feasibilities and the usefulness of PAD in Indian set up are on. the initial small scale researches have demonstrated that Indian patients have welcome this new provision of PAD. The content analysis of hypothetical PAD has also revealed that the majority of the patients would refuse hospitalization and ECTs. The impact of such decisions on the treatment and outcome of the illness is a matter of concern. In this symposium, the symposium, the speakers will discuss the practical, administrative and the legal hurdles in the way of effective implementation of PADs and their possible solutions. They also share the findings of a feasibility study of on the PAD and the difficulties cam across during this research. They also discuss e the competency assessment and its challenges, as the competency assessment is a compulsory pre-requisite to ascertain if "somebody is fit to make PAD"

SYMPOSIUM 3. Title: Impact of Residential Mobility on Borderline Personality Traits

Name of Presenting Author: Thwisha Bajpai
Affiliation of Presenting Author: CHRIST (Deemed to be University), Bengaluru, Karnataka
Co-Author Name 1: Anuradha Sathiyaseelan
Co-Author Name 2:

Residential Mobility or intra-urban migration is defined as the frequent change of households within different urban areas. It has been seen as a major contributory factor to psychological well-being. This pattern of frequent relocation of residence is not alien for military families. This study aimed at establishing a relationship between high residential mobility and prevalence of borderline personality traits among young adults belonging to military families. As the immediate environment of home is the only stable factor, role of parents was also explored as a protective factor. The study was conducted following an explanatory sequential design. There were 80 participants (M=40, F=40) ranging from the age of 18-25years, belonging to a military background who participated in the study by completing two questionnaires: Parent Attachment Questionnaire and McLean Borderline Personality Disorder Screener. A semi-structured interview was conducted for the high scorers on borderline personality and analyzed using thematic analysis. The results indicated that there was no significant relation between residential mobility and borderline personality traits. However, there was a negative correlation between affective quality of relationship with parents and borderline personality. The interviews highlighted the impact of mobility on self-identity, personality development, interpersonal relationships and sense of belongingness. It also explored the relationship between these factors and their influence on borderline personality traits.
Keywords: military, residential mobility, borderline personality traits, parent attachment

SYMPOSIUM 4. Title: New Psychoactive Substance: Diagnostic Dilemma and Challenges in Management

Name of Presenting Author: Dr. Nitin Raut
Affiliation of Presenting Author: Department of Psychiatry and drug de-addiction centre, Lady Hardinge Medical College, New Delhi.
Co-Author Name 1: Dr.Sajjadur Rehman
Co-Author Name 2: Dr.Sumit Rana
Co-Author Name 3:

Recently there has been an increase in the sale and recreational use of new psychoactive substances (NPS). NPS are substances of abuse, either in a pure form or a preparation, that are not controlled by legal services but may pose a public health threat(Patil et al 2018).Most of these compounds belongs to synthetic cannabinoids, cathinones, and phen-ylethylamines. As per the World Drug Report 2017, 0.6 % suffers from drug use disorders globally. However, data about the extent and use of NPS in general population is lacking.

They show rapid washout from body and difficult to detect by usual drug screening assays. Thus easily dodge the existing legal regulations and provide the effect like other recreational drugs. Adverse health/ neuropsychiatric effects are also in rise due to NPS like seizures, severe agitation, myocarditis, and chest pain, psychosis, panic/anxiety, and seizures. Recently, few deaths associated with intoxication with NPS intake have also been reported. Drugs like GHB and Rohypnol are also implicated in criminal activities such as daterape and robbery.

Diagnosing NPS use is challenging due to lack of standardized tests, unavailability of data on signs and symptoms and constant change in chemical structure to avoid detection and legal complications. Management also is challenging due to lack of specific antidotes and rests mostly on supportive care and clearing the substance from the body. Things become even more difficult when an unknown substance or a cocktail of drugs is taken.

Thus NPS are an emerging health and legal hazard which is rapidly rising and poses a great challenge to already overburdened health and especially the de-addiction services in our country. To review the available evidence on NPS, their classification, diagnosis and management we have planned a symposium titled "New psychoactive substance: Diagnostic dilemma and challenges in management".

New psychoactive substance: Introduction and overview: Dr.Nitin Raut, Specialist (Psychiatry), Department of Psychiatry and drug de-addiction centre, Lady Hardinge Medical College, New Delhi.

New psychoactive substance: Diagnostic dilemmas: Dr.Sajjadur Rehman, Specialist (Psychiatry), Department of Psychiatry and drug de-addiction centre, Lady Hardinge Medical College, New Delhi.

New psychoactive substance: Challenges in management: Dr Sumit Rana, Assistant Professor, Department of Psychiatry and drug de-addiction centre, Lady Hardinge Medical College, New Delhi.

SYMPOSIUM 5. Attention deficit hyperactivity symptoms and Internet Addiction

Dr Lavkush kumar ,1, Dr. pritha roy,1, Dr Anamika das,2, Dr. jai singh ,2,

1s*senior resident Department of geriatric mental health kgmu lucknow.,* 2 *Senior resident department of Psychiatry, kgmu lucknow*

The objective of this study was to evaluate the relationship between attention deficit-hyperactivity/ impulsivity symptoms and Internet addiction. In total, 41 children and adolescent were recruited as case group and 40 chlidren were selected as control group. After obtaining inform consent they were assessed on semi structure proforma for socio demographic profile. Both parents were assessed separately through proper interview. Children and adolescent were screened on KSADS-PL and Diagnosis of ADHD was made as per DSM-IV TR. The presence or severity of Internet addiction was assessed by the Young's Internet Addiction test and categorised in mild, moderate, severe and very severe use. Time of internet exposure in ADHD childen was also assessed and children were devided in to two group i.e. problematic internet use and non problematic internet use. Type of activity on internet was also assessed. Behavioural problems were assessed on Child Behavior Checklists. Among internet using children, significantly greater number of children in case group[20(55.6%)], than control[2(9.6%)] were using internet for more than 20 hr per week.(P=0.0001) and significantly higher no of ADHD(25.5%) children found to be internet addiction than the non-ADHD group (3.2%;P <0.01). Among internet addicted children pathological T score (T>60) in CBCL subdomains were found for aggrieve behavior (T=68.41), social problems(T=66.72), rule breaking(T=70.64) and Attention problem(T=60.41). Among internet addicted children a positive correlation was found between the internet addiction scale score and aggrieve behavior(r=0.77), social problems(r=0.80), rule breaking(r=0.96) and Attention problem(r=0.68) domains of CBCL.

SYMPOSIUM 6. Title: Behavioral Economics and mental health, what can all mental health professionals learn?

Working title: Behavioural Economics and Mental Health

Authors:
Dr Ambrish Sanjay Dharmadhikari
Consultant and Head of Medical Services
Mpower Foundation
Mumbai
Dr Avinash Shukla
Senior Resident, Dept. of Psychiatry
All India Institute of Medical Sciences,
Raipur
Corresponding Author:
Dr Ambrish Sanjay Dharmadhikari
Consultant and Head of Medical Services
Mpower Foundation
Mumbai

Background

Economics is defined as how we apply limited resources to the aspirational fulfilment of unlimited wants hence it encompasses judicious allocation of resources. Economics intricately involves and to a great extent is wrapped around in human behaviour. That is why economics is considered, rightfully, a behavioural (or social) science. Occasionally, the conceptual substance of economics even integrates with that of the other recognized behavioural sciences, for example, psychology, sociology, anthropology, and political science.

The formal definition of behavioural economics, among leading scholars of the science, is economic activity infected by 'human limitations and complications. The field of behavioural economics differs from neoclassical economics in that it focuses on the ways in which rationality may be limited or bounded, and influenced by factors such as impulsiveness, limited willpower, social norms, and the context in which choices are made. Governments worldwide are increasingly incorporating the behavioural economics approach into policymaking.

Behavioural Economics & Public Health Policy

Several studies have found that simply prompting (nudging) individuals to make a plan increases the probability of the subject eventually engaging in the prompted health behaviour, such as immunizations, healthy eating, and cancer screening.

Behavioural Economics & Mental Health

More than half of people with mental disorders do not receive treatment, even though long-standing barriers to mental health care such as stigma and financial factors appear to be receding. Many people have unhealthy diets and engage in little physical activity, for example, even when financial and attitudinal factors are not necessarily barriers to healthy behaviour. Present-orientation and procrastination have been highlighted by behavioural economists and other social scientists as potentially important explanations for these unhealthy behaviours.

Mental health could affect the general rate at which people discount future utility, and it could also affect the degree to which people value the present versus all future periods, which could in turn lead to indefinite delay (procrastination) of help-seeking.

SYMPOSIUM 7. Resilience from Concept to Practice

Nisha Mani Pandey1, Dr Akanksha Sonal2

[1]Assistant Professor (Non-medical research). DGMH, KGMU UP, Lucknow, India-226003 Email id: nishamani@kgmcindia.edu, nisha15pandey@yahoo.co.in IPS membership No: LAM/N01/16

[2]Fellow-Senior Resident & corresponding author, Department of Geriatric Mental Health, King George's Medical University Email id: dr.akanksha.sonal@gmail.com IPS membership No:applied

Resilience has been conceptualized across a range of disciplines including Physics, Engineering and Psychology. In terms of Mental Health, it has been defined as *a dynamic psychosocial process through which individuals exposed to sustained adversity or potentially traumatic events experience positive psychological adaptation over time.* This positive adaptation happens across various levels, including factors such as supportive family and relationships, effective coping skills, culture and neurobiology. These levels are complimentary rather than being mutually exclusive.

Over the past century, research on resilience has evolved through several stages, from developmental psychology of childhood to positive psychology of adult life and eventually to the concept of cognitive reserve in late life. Paralleling this evolution, the focus on determinants of resilience have moved from inherent character of the individual to the factors originating outside the individual (extra-individual) i.e., at family, community and cultural level. Following the dissatisfaction with 'deficit' models of illness and psychopathology, International research on resilience has increased substantially over the past two decades. Resilience is now also receiving increasing interest from the perspective of policy making and clinical practice, on account of its potential influence on health, well-being, quality of life and people's response to the various challenges of the ageing process. Various approaches to, measuring resilience defined across literature has lead to inconsistencies and heterogeneity relating to the nature of potential risk factors and protective processes, and in estimates of prevalence. With this background here in this symposia we will be discussing about:

1. Resilience as an evolving concept and its significance for healthy aging
2. Resilience and its measures in clinical practice with special reference to late life stages (review of different scales used to measure resilience and factors associated with it).

SYMPOSIUM 8. A study of distribution of psychiatric morbidity in male prisoners

Name of Presenting Author: Dharmdeep Singh
Affiliation of Presenting Author: Consultant Psychiatrist, Central Jail Jaipur
Co-Author Name 1: Kishore Dudani
Co-Author Name 2: Gunjan Solanki

Background: Prevalence of mental health disorders in prison is more than its prevalence in community. Not only pre-existing mental health conditions which are known to be increasing participation of affected individuals in criminal activities but also the post jail entry environmental factors, play a significant role in the development or further deterioration of his mental health condition.

AIM AND OBJECTIVES:

To assess the distribution of various psychiatric disorders amongst male prisoners (both convicted and under trial).

Materials & Method:

Data of those male inmates (both under trials & convicts) undergoing treatment for psychiatric disorders was assessed to Know the distribution of psychiatric morbidity in them & the nature of crimes committed by them.

Results:

Upon thorough assessment of available data it was found that most patients amongst those being treated for psychiatric disorders (including Substance use disorders) were of SUDs (mostly Opiod dependence/ Abuse at the time of incarceration). Excluding SUDs most commonly diagnoses amongst them were on Psychotic spectrum followed by Depressive disorders, Bipolar Affective Disorders, Anxiety spectrum disorders, Obsessive- Compulsive Disorder & Dhat syndromes in the similar descending order. Most common crimes committed by those with Psychotic spectrum disorder were murder followed by illegal handling/possession of arms whereas those with Anxiety-Depression spectrum were mostly accused of robbery followed by rapes.

Conclusion:

There has been found a strong relationship between psychiatric disorders and nature of crimes committed. On the basis of available data we can say that an early diagnosis and management could have probably helped reducing the crimes in those suffering from psychiatric disorders.

SYMPOSIUM 9. Recent advances in Management of Neuropsychiatric Symptoms in Parkinson's Disease

Dr parul Prasad ,1, Dr. lavkush kumar,1,Dr. pritha roy
1*senior resident Department of geriatric mental health kgmu lucknow*

Neuropsychiatric symptoms are highly prevalent in Parkinson's disease and associated with decreased quality of life and adverse health outcomes. Validated assessment scales are now available for the majority of common neuropsychiatric symptoms are like: depression, anxiety, psychosis, cognitive impairment, dementia and apathy.

Balancing dopaminergic therapy plays an important role in their management as increasing doses of dopaminergic agents might address depression and anxiety related to 'off' phases, non-motor fluctuations and apathy, while dose reduction might alleviate psychotic symptoms. More targeted treatment is possible through medications utilising different pathways. Although efficacy profiles of individual agents are not completely explored and require further exploration, antidepressants as a drug class have shown utility in depression and anxiety in patients suffering Parkinson's disease. Psychological therapies are also very effective in treatment of depression and anxiety symptoms in patients with Parkinson disease, especially cognitive behavioural approaches. After starting dopaminergic therapy in Parkinson disease patient, psychotic symptom may appear as side effect or worsening of ongoing psychotic symptoms may observe after starting dopaminergic therapy. Pimavanserin allows the treatment of psychosis in Parkinson's disease without directly affecting the dopaminergic and cholinergic system. The cholinergic system is currently the only target in Parkinson's disease dementia, and antagonists of this system, as are many psychotropic drugs, need to be used with caution. Management of apathy largely relies on non-pharmacological strategies adapted from dementia care, with antidepressants being ineffective and the role of stimulant therapy needing further evaluation.

SYMPOSIUM 10. Chronic Fatigue Syndrome: Indian Perspectives

Mahadev Singh Sen[1], Swapnajeet Sahoo[2], Shubh Mohan Singh[3]
[1]Senior Resident, All India Institute of Medical sciences, New Delhi
[2]Assistant Professor, All India Institute of Medical sciences, Bhubaneshwar
[3]Additional Professor, Postgraduate Institute of Medical Education and Research, Chandigarh

Chronic Fatigue Syndrome (CFS) is a syndrome of interest to patients, clinicians, and researchers. There have been several shifts in the conceptual evolution and nomenclature of the illness and most recently it has been renamed and redefined with the name of systemic exercise intolerance disease (SEID). Though the research on CFS has been mostly from the West, it is not unknown in developing countries. Fatigue is a commonly encountered symptom in developing countries. The disease characterized primarily by chronic, disabling fatigue without adequate explanation is quite challenging to treat and hence it has been the area of interest for several medical professional lobbies in addition to mental health professionals. There has been a paradigm shift with regards to patient care over the years. There are few studies which have evaluated this construct. In our country, fatigue has often been attributed to anemia and nutritional deficiencies which are then treated with nutritional supplements presumptively. Such preparations account for the largest category of drugs dispensed in South Asia. These studies have reported the strongest associations of CFS with psychosocial factors and gender disadvantage (in women) and being an indicator of poor mental health.

In the Symposium we would like to discuss the research on this symptom/disease so far with special relevance to the Indian context and it's implication to the medical/psychiatric professionals.

Presenters:

1. Mahadev Singh Sen: Chronic Fatigue Syndrome – concept and evolution
2. Swapnajeet Sahoo: Fatigue as a symptom
3. Shubh Mohan Singh: Chronic Fatigue Syndrome – Indian Perspective

SYMPOSIUM 11. SYMPOSIUM ON MIND-BODY MEDICINE

Sanjay S Phadke, Arun Marwale, Nischol Raval, Vani Kulhalli

Popularized by Harvard Medical School in recent times Mind-Body Medicine traces its roots in a century of Stress research starting with physiologist Walter Canon's description of "fight or flight response" followed by endocrinologist Hans Selye's description of "general adaptation syndrome", psychologist Robert Ader's formulation of "Psycho-Neuro-Immunology" and characterization of "Relaxation Response" by cardiologist Herbert Benson.

Subsequent developments include

(a) deeper understanding of neurobiology of stress at molecular and systems level, and stress adaptation including concept of allostasis

(b) role of stress either in causation or in progression/worsening of not only psychiatric disorders but host of medical conditions, most notably highly prevalent lifestyle disorders (obesity, diabetes, hypertension, heart disease, pain syndromes, functional bowel disease etc)

(c) research has generated impressive evidence to support the ability of Mind-Body approaches (like Yoga, Meditation, cognitive skills and positive psychology) to improve treatment outcomes and quality of life.

Considering that most of the Mind-Body approaches have their origin in India and healthcare is in the midst of transition everywhere it is our opportunity to conceptualize and usher in new integrative medicine that integrates Mind-Body methods with standard medical treatments for achieving superior cost-effective results.

Mental health professionals are best suited to be the practitioners and leaders of integrative Mind-Body Medicine in India, who can make the intervention available to the psychologically distressed as well as stressed medically ill. Mind-Body Medicine can also be viewed as a useful vehicle to popularize 'mind' interventions and thereby reduction of stigma associated with mind issues.

The symposium endeavors to present comprehensive review and discussion on state of the art on this topic and also approach to its training and implementation in the Indian context.

Key words: Mind-Body Medicine, Stress, Integrative medicine

SYMPOSIUM 12. CAPACITY EVALUATION IN THE CONTEXT OF MHCA 2017

Name of Presenting Author: dr. INDU V. NAIR,
Affiliation of Presenting Author: senior consultant, Mental health centre ,Trivandrum
Co-Author Name 1: dr. Anil Prabhakaran, professor, Govt medical college, Trivandrum
Co-Author Name 2: dr. Pavan Kumar, DNB resident, Mental health centre, Trivandrum
Co-Author Name 3: dr.Jithin Joseph, DNB resident, Mental health centre, Trivandrum
Co-Author Name 5:

Decision making capacity is of clinical and legal importance not just in psychiatry but in the medical settings in general . With the new mental health care act this becomes important in several specific points.

In MHCA 2017, the capacity to make mental health care and treatment decisions(section 4) has a meagre mention about this complex assessment. The person is deemed to have the ability often and the assessment in its multifaceted dimension has scant reference in the draft central rules also. And it is the presence or absence of such capacity which decides on several situations like, asking for independent admission, making advance directive, taking treatment decisions, asking for voluntary discharge, for personal assistance , consenting to research etc. Hence capacity evaluation assumes great importance in the implementation of MHCA 2017.

This Symposium tries to draw clarity regarding mental capacity, its assessment, scales used, available evidence and the problems in practical application.

Key words- decision making capacity, MHCA 2017, practical applications
Abstract - ANCIPS 2019, Lucknow
Symposium

SYMPOSIUM 13. Title: Patriarchy – Epigenetic effect on the phenotype

Speakers:
1) Dr Syeda Ruksheda, Mumbai
Phone - +919820033095, email – ruksheda@gmail.com
2) Dr Amrit Pattojoshi, Bhubaneshwar
Phone - +919438148100, email – dramritp@gmail.com
3) Dr Supriya Agarwal, Meerut
Phone - +919917100312, email – drsupriya.agar@gmail.com

Outline:

- Gender specific risk factors for common mental disorders that disproportionately affect women include gender based violence, socioeconomic disadvantage, low income and income inequality, low or subordinate social status and rank and unremitting responsibility for the care of others – WHO
- Without an analysis of discrimination and patriarchy it is impossible to comprehend mental health issues impacting women, men and other genders.
- It is a matter of debate and discussion, how, predominantly patriarchal mind-sets and societal influences in turn, directly or indirectly influence neurobiological framework of the brain; and how neurobiological framework of the brain in turn, governs the patriarchal mind-set. At the system level, recent studies show that dominance perception is represented in brain regions which include the amygdala, hippocampus, striatum, and various cortical networks such as the prefrontal, and parietal cortices (1). At the neurotransmitter and hormonal level, dopamine (1), serotonin (1) and testosterone (2) are mainly involved.
- The most virulent effect of growing up as a male in patriarchal society is the form of the masculine ethic known as machismo. This concept has been written about from the perspectives of many different disciplines and has variously been called "compulsive masculinity" and "macho" in the literature. Studies have been shown to be associated with men's perpetration of physical/sexual violence against women and poor health outcomes for women in terms of physical and mental health outcomes. When males feel that they are becoming powerless, violence or the threat of violence often results. He is more likely to claim authority on the strength of sex rank alone because he is usually forced to share more economic power with women. These factors are reflected in higher rates of homicide and violence. Males and their increased acceptance and respect for extreme machismo. Misogynistic attitudes are linked to poor health outcomes for men also. Substance use behaviours (alcohol, marijuana, heroin, methamphetamines, cocaine) and poor mental health (depression, self-esteem) have been found to be more in such individuals. (3,4)
- Gender determines the differential power and control that men and women have over the socioeconomic determinants of their mental health and lives, their social position, status and treatment in society and their susceptibility, and exposure to specific mental health risks (5). The expectation about what constitutes illness is gender biased. For example, the somatic complaints that form the most prominent presentation of common mental disorders may not be taken into account by the care providers. A gender bias more often than not ensures that the symptoms are taken less seriously than they are for men (5).
- Education, training, and interventions targeting the social and

physical environment are crucial for addressing women's mental health (5).
- This symposium aims to take a fresh look at patriarchy and its harmful affects, and discuss measures to bring about change in mental health professionals and society at large. This deliberation of the symposium purports to shed some light on the neurobiological threads of patriarchal systems in society, to simplify it for the ease of comprehension and assimilation.

Sub-topics
1) Neurobiological Aspects of Patriarchy
2) Impact of misogyny on attitudes and behaviour of all genders
3) Changing the narrative

SYMPOSIUM 14. Explanations to the Medically Unexplained Symptoms (MUS): Are we looking deep enough?

Name of Presenting Author: Dr Jyothi Arayambath
Affiliation of Presenting Author: Locum Consultant Psychiatrist, MHAT-UK
Co-Author Name 1: Dr Rajeev Kumar
Co-Author Name 2: Dr Manoj Kumar
Co-Author Name 3:

Background
Psychiatric practice requires a holistic approach and medicine remains an integral part of it.
The advances in the field of medicine is not appropriately translated in to the practice of psychiatry and the discipline has now become fragmented. It is important to revisit the medically unexplained symptoms in the context of advances in medicine, as in contrary to the popular belief, majority of the medically unexplained symptoms seemed to have organic basis.
Aim
To pose questions which should hopefully highlight and encourage new research on MUS from the clinicians who observe a link between the symptoms, investigations, diagnosis and treatment. Further, to identify, explore, and apply those observations using a biological research paradigm.
Evidence
Robust evidence depends on a variety of factors including findings from new research and deeper understanding of MUS. Attempts should be made to translate such new knowledge into the clinical practice.
Discussion
Careful consideration of alternative and uncommon explanations of the rare associations as well as a detailed enquiry into recurrent common themes should help our understanding of medicine and psychiatry. For example, Vitamin D deficiency is found to have an association with a large number of difficult to diagnose cases, including depression, anxiety, fibromyalgia, ME, connective tissue disorders, IBS, allergies, asthma, immuno-deficiencies, endocrine abnormalities, Alzheimer's dementia, Autism, ADHD, Multiple Sclerosis, Sphincter dysfunction, overactive bladder etc; apart from the more known causes. In addition to that epilepsy - particularly autonomic seizures, movement disorders, medication side effects, Paradoxical Emboli (seen in post mortem studies) remain some of the most common causes of those diagnosed with MUS.
Conclusion
There is an urgent need for better causative models of MUS. Currently, in the absence of such models, a collaborative approach is required in medical practices and hopefully with the proposed newer causative links as above will offer newer treatments rather than operating with existing consensus models populated by the outdated classification systems.

SYMPOSIUM 15. TOPIC: GENDER DYSPHORIA IN CULTURAL CONTEXT

Proposed By: Dr (Surg Cdr) Kshirod K Mishra, Professor & Head *Psychiatry, MGIMS,Sewagram Wardha*
Co-presenter: Dr Surjeet Sahoo, Proff &head Psychiatry, Sum hospital
Dr Sally John, Asso Professor Psychiatry, JNMC,Wardha
Dr. Samrat Kar, Consultant Psychiatrist, Cuttack, Odissa

Abstract: Gender dysphoria is experience of distress felt due to physical sex and sense of gender orientation of an individual. The condition is commoner among children but majority of children outgrow out of it by early adulthood. In adolescent and early adulthood it can culminate in gender reassignment surgery leading to change in familial and social role. It not only impacts the individual psyche, but also affects the family members, their standing in the society, and associated stigma. We intend to discuss the merits and demerits from socio-cultural view point.

SYMPOSIUM 16. PIONEERS' OF Indian PSYCHIATRY

Proposed by :
Prof.R.Srinivasa Murthy, Bangalore. Life Member: 13063
Against the background of the conference theme it would be appropriate to have a Symposium on 'PIONEERS' OF Indian PSYCHIATRY.
This Symposium of Two hours would bring to the larger audience, especially the younger psychiatrists, to recognise the important contributions of senior psychiatrists from different parts of India, who are no more, as well as pay tribute to their efforts in Making Mental Health a National Priority.
Each presenter will make an 8 minute presentation, highlighting the biographical details, major contributions to Indian psychiatry and conclude with the lessons learnt from the individuals life.
The Suggested leaders to be included and speakers are as follows:
Coordinator of Symposium: Prof.R.Srinivasa Murthy
Introduction: 4 minutes
1. M.V.Govinda Swamy- Sanjeev Jain
2. N S Vahia- Vihang Vahia
3. R.L.Kapur- Ajit bhide
4. J.S.Neki- Sudhir Khandelwal
5. D.N.Nandi- Gautam Saha
6. B.B.Sethi- Santosh Tandon
7. N.N.Wig- R.S.Murthy
8. Shantha Kumar- Praveen Lal.
9. Rose Chacko- Russell
10. Ramachandran- Nambi S
11. Ajitha Chakraborthy- Om Prakash Singh
12. A Venkoba Rao- Roy, K.

SYMPOSIUM 17. IAPA Symposium: Depression and Addictions: A complex comorbidity

Ashwin A Patkar, MD
Professor of Psychiatry and Medical Director, Duke Addictions Programs
Duke University Medical Center
2213 Elba St, suite 163
Durham, NC 27705, USA
Tel: 919-668-3626
Fax: 919-668-5418
Email: ashwin.patkar@duke.edu

Individuals with substance use disorders frequently suffer from depression, and co-occurring disorders (COD) are associated with increased morbidity and mortality along with poorer treatment outcomes. Moreover, depression is a frequently cited precipitant of relapse among individuals with substance use disorders. While some depressive symptoms are syndromes related to intoxication or withdrawal from substances which resolve with abstinence, epidemiologic studies indicate that, in many instances, depressive and substance use disorders are independent co-occurring disorders. Current treatment guidelines recommend that individuals with COD receive treatment for both

disorders. However, rates of unmet need are high and only a small fraction of patient receive care for both mental health and substance use. This presentation discusses the growing linkage between neuroscience and clinical therapeutics in the field of substance abuse and depression and reviews treatment approaches that have been developed to treat individuals who suffer from substance use disorders and depression. Integrating the newer pharmacological approaches with practical behavioral treatments have the potential to improve clinical treatments for co-occurring depression and substance use disorders.

SYMPOSIUM 18. SYMPOSIUM PROPOSAL: Tracking Deviations in Neurodevelopmental Trajectories to Predict Adult Psychopathology

Findings from the Consortium on Vulnerability to Externalizing Disorders and Addictions

Chair: Dr. Vivek Benegal, Professor of Psychiatry – Centre for Addiction Medicine,
National Institute of Mental Health and Neurosciences, Bangalore.
Presentation1: Description of the cVEDA cohort : Nilakshi Vaidya. Project Coordinator, cVEDA.
Presentation 2: *Deviations in neuropsychological trajectories – determinants of psychopathology?*
Dr. Eesha Sharma, Assistant Professor, Department of Child and Adolescent Psychiatry, NIMHANS
Presentation 3: Adolescent brain development of cortical and white matter structure in the cVEDA sample: Role of gender, childhood adversity, family history of alcoholism, and alcohol drinking
Dr. Bharath Holla, Assistant Professor, Department of Psychiatry, NIMHANS

The Consortium on Vulnerability to Externalizing Disorders and Addiction (cVEDA), is an ICMR-MRC, UK funded collaborative, multi-centric study across 7 centres in India. The primary aim to investigate the transactional impact of developmental exposure to environmental stressors, and genomic/ epi-genetic influences, on neurodevelopment and consequent acquisition of cognitive, emotional and behavioral capacities, which regulate vulnerability/ resilience to future psychopathological states. The cVEDA is the largest-ever longitudinal-study in India, on an epidemiological scale, to understand the determinants of psychopathology using a population neuroscience framework. Starting in 2016, the study has, till date, collected data on genotype, temperament, psychopathology, family-risk, environmental exposures, and neuropsychological performance, on around 7000 individuals aged 6-23 years; and neuroimaging data on around 1000 individuals. This symposium will focus on early and novel insights, about the underpinnings of psychopathological states, emerging from the cVEDA dataset.

The first presentation will highlight the rich regional and environmental diversity characterizing this cohort, and present the methodology of this accelerated longitudinal cohort, the socio-demographic profile and description of the cVEDA databank.

Structural (neuroimaging) and functional (neuroimaging and neuropsychological performance) brain variations have been described for psychiatric disorders, suggesting that these may be intermediate phenotypes in the expression of psychopathological states. cVEDA, with population-based neuroimaging and neuropsychological data, makes it possible to study structural and functional brain development trajectories. The next two presentations examine cross-sectional developmental trajectories from neuroimaging and neuropsychological data, and explore how deviations in these trajectories could predict psychopathological states. They will also discuss the developmental influences of gender, childhood adversity, family history of psychiatric illness, and alcohol drinking on adolescent brain maturation and development of psychopathological states. Understanding such varied influences on developmental processes would ultimately make way for the early identification of and, possibly, pre-emptive interventions for psychopathology.

SYMPOSIUM 19. Title: Transforming Geriatric Psychiatry for the Next Decade- Developing Training, Services and Research

Presenters: AQ Jilani, Dhananjay Chavan, PT Sivakumar and Mathew Varghese

Address for correspondence: Dr Mathew Varghese, Professor of Psychiatry, Geriatric Psychiatry Services, NIMHANS, Bangalore-560029, India.
Email: mat.varg@yahoo.com Telephone: +91-9845683954

Background and Aims: There is a rapid increase in the number of elderly persons in India. As recorded in the Census of India there are many more persons in the 80+ and 90+ age groups. Most elderly have over 3 diseases including a mental disorder; the commonest of these being depression and cognitive disorders. The services, treatment settings, manpower, and programs available for the elderly are at present not adequate to deal with this impending public health problem. Hence, we need to transform the current Geriatric Psychiatry scenario in India by augmenting our current clinical services, training and programs and to prioritise our focus on dealing with this looming health priority. In this symposium we would discuss a strategic plan in developing Geriatric Psychiatry that is required for the next decade.

1. Training in Geriatric Psychiatry: Dr AQ Jilani

Training in geriatric psychiatry should start at the postgraduate level in all disciplines and specifically in the psychiatry residency programs. There is a need to further augment this training for consultants in psychiatry, neurology and other medical specialists through the conduct of regular CME programs. Training of other health personnel like psychologists, social workers, nurses and health workers is necessary to complete the broad spectrum of geriatric care. In addition, we need to develop support and training programs for family caregivers of the elderly. For these programs to be optimally utilised we would need to develop programs for public awareness and education regarding elderly problems.

2. Developing Geriatric Psychiatry Services: Dr Dhananjay Chavan

Most elders with health problems would be cared for in the community. Hence, we need to develop services at the community level through support programs in the family, day-care centers and respite care centers at the taluk level. Outpatient treatment services in the form of elder health clinics or memory clinics should be developed at the taluk level. Provision for inpatient care should be available at all district hospitals for short hospitalisation to deal with acute geriatric problems. Tertiary care centers like long term care homes should also be planned for the more serious problems that may not be handled in the community when family members are no longer able to care for the elderly person.

3. Formulating Geriatric Treatment Plans, Programs and Policy: Dr PT Sivakumar

Treatment plan and guidelines need to be developed for most of the common psychiatric disorders. Attempts may be made to adapt the WHO mhGAP guidelines for use in most primary and secondary treatment facilities. The National Program for Health Care of Elderly (NPHCE) should be operationalised so that it may be implemented at all levels in the community. There is a need to redraft the National Policy for Older Persons (NPOP) after consultations with all stake holders so that each of the States could be transformed into Elder Friendly Communities.

4. Priorities for Research in Geriatric Psychiatry: Dr Mathew Varghese

There should be a wider consultation among stakeholders to decide on the priority areas for research. Epidemiological studies should be planned in the population to study the prevalence and magnitude of the common geriatric psychiatry disorders and their causative or risk factors. Service utilisation research would be required to study the impact of service delivery and to function as clinical audits of the plans and programs that are rolled out. There should be a concerted effort to devise studies that focus on the primary prevention of these disorders.

SYMPOSIUM 20. CULTURAL ISSUES CONTRIBUTING TO THE CHANGING practice of psychotherapy in India

The influence of culture and acculturation on the practice of psychotherapy: RA Kallivayalil

How essential is 'family' for effective delivery of psychotherapy? *Nitin Gupta*
How creativity contributes to the process of Psychotherapy: *Vinay Kumar*

The practice of psychotherapy in various countries has been influenced by social and cultural factors. In India, it has been observed and argued that psychotherapy, as practiced in the West, might be suitable only for those living in cosmopolitan cities of India and not for majority of the population.

Psychotherapy and Psychotherapists in the Indian context continue to face various dilemmas due to the ever changing cultural and moral values due to influence of the western culture on the 'traditional culture. Nevertheless, there is a case for being able to adapt the 'western' model for traditional society like India too. Certain individual socio-psychological variables like creativity and acculturation seem to play a key role in the process of delivery and effectiveness of psychotherapy. Also, the family has traditionally been viewed as being effective in management of mental illnesses. But how effective it is in delivery of psychotherapy? This symposium aims to address such issues, and highlight the changing practice of psychotherapy and its delivery in the Indian setting.

SYMPOSIUM 21. Symposium on Sample Size Estimation in Mental Health Research

Prof. B. Das, Hariom Pachori, Dr. Avinash Sharma, Dr. Varun S. Mehta, Dr. Roshan V. Khanande

Sample size estimation plays pivotal role in mental health research. In this symposium we would discuss the basicSample size estimation techniques commonly used in mental health research. We would try to answer all the below mentioned questionsthrough examples in the symposium.

1. Why sample size estimation is important in mental health research?
2. What is ideal sample size to conduct any study?
3. How to estimate sample size in cross-sectional studies?
4. How to estimate sample size in case-controlstudies?
5. How to estimate sample size in cohortstudies?
6. How to tackle design effect?
7. What are software packages used for sample size estimation?

Keywords: Mental Health Research, Sample Size Estimation

Titles of presentation:

1. Overview of Sample Size Estimation in Mental Health Research: Prof. Basudeb Das
2. Sample Size Estimation (cross-sectional studies)in Mental Health Research: Dr. Roshan V. Khanande
3. Sample Size Estimation (case-controlstudies) in Mental Health Research: Dr. Avinash Sharma
4. Sample Size Estimation (Cohortstudies) in Mental Health Research: Dr. Varun S. Mehta
5. Basic Sample Size Estimation and Software packagesused for Sample Size Estimation: HariomPachori

Details of speakers:

1. Prof. Basudeb Das, Professor of Psychiatry, Central Institute of Psychiatry, Kanke, Ranchi-834006.
2. Hariom Pachori, Statistician, Central Institute of Psychiatry, Kanke, Ranchi-834006.
3. Dr. Avinash Sharma, Assistant Professor of Psychiatry, Central Institute of Psychiatry, Kanke, Ranchi-834006.
4. Dr. Varun S. Mehta, Assistant Professor of Psychiatry, Central Institute of Psychiatry, Kanke, Ranchi-834006
5. Dr. Roshan V. Khanande, Assistant Professor of Psychiatry, Central Institute of Psychiatry, Kanke, Ranchi-834006

SYMPOSIUM 22. Symposium: Advances in Neurobiochemistry of sex and its implications in sexual medicine practice.

Dr. T.S. Sathyanarayana Rao, Dr. Mrugesh Vaishnav, Dr. Darpan Kaur

Professor, Department of Psychiatry, JSS Medical College JSS University, Mysore, Karnataka.
Email: tssrao19@yahoo.com

Sex is a bio-psycho-social phenomenon. The research has sufficiently advanced concerning brain and its mechanisms to explain various nuances of sex and relationship. Infact, brain is considered as the biggest sex organ. Apart from neuroanatomy and neurophysiological explanations, the neurobiochemistry is essential in understanding psycho-pathophysiology of sex. Also hormones and neurotransmitters play a major role in human sexual life. They determine who we love, when we love, how we love and how often we love. They mediate desire, arousal, and orgasm stages of sexual response. There are significant differences between males and females which can be interpreted and understood taking into consideration all the aspects from biology to psychology and sociology. A sexual relationship is fulfilling when there is synergy of many hormones and chemicals that are released at different phases of the love relationship. Many psychopharmacological agents have both direct and indirect, cause and effect upon sex, hence a thorough understanding and sensitivity is needed in psychopharmacology practice. The presentation looks at all the above aspects from the perspectives of sexual health, sexual disorders and its correlation to management and in particular psychopharmacology of sex in health and disease.

Speakers:

Neurobiochemistry of desire – Dr. Darpan Kaur, Mumbai.
Neurobiochemistry of erection and ejaculation – Dr. Mrugesh Vaishnav, Ahmedabad
Neurobiochemistry of Orgasm – Dr. T S S Rao, Mysore

Key words: Brain and its mechanisms, Hormones, Neurotransmitters, Neurobiochemistry of sexual function, Psychopharmacology of sex.

SYMPOSIUM 23. Symposium on "Spirituality and Mental Health"

Speakers
1- Dr.B.N. Gangadhar -Director and Vice Chancellor-NIMHANS,Bangalore
Topic:Feeling of Connectedness
2)Dr.R.K. Mahendru- Chairmen-Task force-Spirituality and Mental health,Indian Psychiatric Society
Topic: "Spirituality in every day life ".
3)Dr Philip John- Sr Consultant, Peejays Neurocenter, Cochin.
Topic : Bhagavat Gita as a Paradigm for Therapy in Everyday Practice
"Presenting Author/coordinator of symposium"
Dr.P.Kishan.MD
Convener
IPS task force on "Spirituality and mental health "
Vice-President(President Elect)
South zone,Indian Psychiatric Society
Phone-9849059180
Email-prashanthihospital@gmail.com

In every human being there seems to be a spiritual dimension, a quality that goes beyond religious affiliation that strives for inspiration, reverence, awe, meaning and purpose even in those who do not believe in God. The spiritual dimension tries to be in harmony with the universe, strives for answers about the infinite and comes essentially in focus in times of emotional stress, physical and mental illness, loss, bereavement and death. Despite empirical evidence of a relationship between religiosity/spirituality (R/S) and mental health, application of this knowledge in the clinic remains a challenge. The current state of the evidence provides evidence-based guidelines for spiritual assessment and for integration of R/S into mental health treatment. Spiritual and religious beliefs are common worldwide. According to recent surveys, at least 90% of the world population is currently involved in some form of religious or spiritual

practice. There is consistent evidence that religiosity and spirituality (R/S) play a role in several aspects of life, especially mental health. Three systematic reviews of the academic literature have identified more than 3000 empirical studies on spirituality and health. In general, individuals who have more R/S have less depression, anxiety, suicide attempts, and substance use/abuse, and experience better quality of life faster remission of depressive symptoms, and better psychiatric outcomes. In view of this evidence, many professional organizations, such as the American College of Physicians, the American Medical Association, the American Nurses Association, Joint Commission on Accreditation of Healthcare Organizatins recognize that spiritual care is an important component of health care and that health care professionals should integrate it into clinical practice.

SYMPOSIUM 24. SYMPOSIUM ON INTERNET ADDICTION

Presenters and topic
1. Dr. Anil Kakunje
Professor and HOD department of Psychiatry Yenepoya medical college, Managalore Karnataka
Topic. Introduction diagnostic difficulties and types of internet addiction (IA)
2. Dr Alok N Ghanate
Professor and HOD department of Psychiatry Mahadevappa Rampure Medical College Kalaburagi Karnataka.
Topic. Risk factors, Neurobiology and other etiological factors of IA
3. Dr Deepak R S
Assistant Professor department of psychiatry Basaveshwar Medical College Chitradurga Karnataka
Topic. Digital detox and deaddiction
4. Dr Abhinav Tandon
Consultant Psychiatrist at Dr AK Tandon Neuropsychiatric center, Allahabad, Uttar Pradesh & Assistant Editor Indian Journal of Psychiatry (2013-18)

Topic: Prevention and future directions

The use of Internet has now become indispensable, and the technology has revolutionized the education and practice worldwide. Students have the opportunity to keep updated with the exponential growth knowledge to become a lifelong learner. The internet is used by some to facilitate research, to seek information and for interpersonal communication. On the other hand, it can be used by some to indulge in pornography, excessive gaming, chatting for long hours, and even gambling. Excessive internet use which is also called uncontrolled use of internet, pathological internet use, or internet addiction causes problems in work and social life.[1]

Excessive Internet use is considered as addiction since symptoms of Internet addiction (IA) are comparable to the symptoms of addiction to nicotine, alcohol, or drugs.[2] The term IA is defined as "a psychological dependence on the Internet, regardless of the activity once logged on".[3] Furthermore, IA is described as "characterized by excessive or poorly controlled preoccupations, urges, or behaviors regarding computer use and Internet access that lead to impairment or distress".[4] The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V) identifies Internet Gaming Disorder in Section III as a condition warranting more clinical research and experience before it might be considered for inclusion in the main book as a formal disorder.[5] The latest beta draft version of ICD-11 which was released in October 2016, included the definition of a new disorder, "gaming disorder". According to the definition Gaming disorder is characterized by a) impaired control over gaming. b) Increasing priority given to gaming over other activities to the extent that gaming takes precedence over other interests and activities, and c) continuation of gaming despite the occurrence of negative consequences. This diagnosis is included under disorders due to addictive behaviours (6C51).[6]

Thus, IA is documented as a psychiatric ailment with precise diagnostic and management principles. The US psychiatrist Jerald Block thought that IA was a "compulsive– impulsive spectrum disorder" and that the definition should include "online or offline computer usage, with recognition of at least three subtypes. The subtypes are as follows: excessive gaming, sexual preoccupations, and email/text messaging".[7]

Even young people without mental health problems report addiction to internet and may develop mental health problems as a result of spending hours on porn sites, online shopping sites, luck and computer games, hobby sites and chat rooms. Internet addiction has been reported to be associated with anxiety disorders[8], introversion, personality disorders and mental health problems such as pathological gambling, game playing, bipolar disorder, social phobia and depression in young people.[9]

In view of this background we would like to present a symposium on Internet Addiction and Gaming Disorder.

SYMPOSIUM 25. New Psychoactive Substances: An Emerging Challenge in Addiction Psychiatry

Rakesh Chadda, Rakesh Lal, Raka Jain, Ravindra Rao
Department of Psychiatry & National Drug Dependence Treatment Centre

All India Institute of Medical Sciences, New Delhi 110029

The recent years have seen an increase in the sale and recreational use of New Psychoactive Substances (NPS). The term "new" does not necessarily refer to new inventions, but "new" denotes those substances that have recently emerged in the drug market and which have not been scheduled under the International Conventions. NPS are known by various terms such as "designer drugs", or "legal highs". While there are many types of NPS, some commonly used NPS include synthetic cannabinioids, synthetic cathinones, and phencyclidine-like substances. Data about extent and use of NPS in general population is lacking and currently limited data collected in few countries with respect to specific substances and sub-populations is available. These newer substances are sold mainly through 'head shops' as research chemicals, food supplement or as medicine. Sale through internet is also rapidly increasing in today's digital world. Though there are encouraging reports on possibility of use of NPS for medical purpose, the harmful effects of NPS are highlighted on most instances. Currently available urine or serum toxicology screens are unable to detect all newer drugs that have been synthesized and standardized drug testing for NPS are not yet available in most laboratories. The increasing number of NPS also poses challenge to traditional methods used to diagnose these substances. The heterogeneity in designer drug product contents, concentration, and chemical constituents have further increased challenges in detection. Indian data on use of NPS and use related health hazards is limited. Indirect indicators of use such as seizure data have also raised concern over growing use of NPS in India. India is also reported to be a major producer of NPS along with China. All of these makes control of NPS a challenge to existing legal and policy measures adopted by the countries worldwide.

Key words: NPS; Designer drugs; Synthetic cannabinioids; Ketamine

Presenters:
Rakesh Chadda: Introduction to New Psychoactive Substances (NPS)
Rakesh Lal: Epidemiology and typology of NPS
Raka Jain: Laboratory aspects of NPS detection
Ravindra Rao: Issues and challenges in NPS

SYMPOSIUM 26. Title: Violence and Mental Health: Various Perspectives

Name of Presenting Author: Dr. Bhaveshkumar M. Lakdawala, Professor and Head
Affiliation of Presenting Author: Dept. of Psychiatry, AMC-MET

Medical College and Sheth L.G. General Hospital, Ahmedabad, Gujarat, India
Co-Author Name 1: Dr. Rajendrakumar A. Thakrar, Professor and Head, Dept. of Psychiatry,SMS Hospital & Shri M.K. Shah Medical College, Ahmedabad
Co-Author Name 2: Dr. Manan R. Thakrar, Resident Doctor, Dept. of Psychiatry, AMC- MET Medical College and Sheth L.G. General Hospital, Ahmedabad

Objectives: Violence in any form is a topic of grave concern all throughout the world. Some forms of violence are consistent throughout the globe, whereas some forms of violence are specific to a particular culture or community. Several studies have shown a strong correlation between violence and mental health issues in victims, offenders and community at large. And there is a dire need to scientifically analyze violence issue in victims, offenders and community from a mental health perspective. At the same time, it is also very essential to discuss all the possible interventions and rehabilitation methods for the same. To address this issue and to show recent researches in these areas we have planned a symposium on this neglected and untouched subject.
Description : Violence is defined by the World Health Organization as "the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, which either results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development, or deprivation", although the W.H.O. acknowledges that the inclusion of "the use of power" in its definition expands on the conventional understanding of the word. Under this broad definition, it becomes extremely important to analyse and discuss violence from various points of view. To make the topic palatable and cover as many sub topics as possible, the subject of "Violence and mental health" has been divided into 3 main perspectives on which the speakers shall speak and discuss. These are as follows:
1. Violence and Mental Health: Victim's Perspective
2. Violence and Mental Health: Offender's Perspective
3. Violence and Mental Health: Community Perspective

Key Words: Violence, Mental Health, Victims, Offender, Community

27. TITLE: ETHICAL AND LEGAL ISSUES IN THE PROCESS AND DROP-OUTS OF MARITAL AND FAMILY THERAPY IN INDIA

Panelist: [1]dr. Praveen Khairkar, Md., [2]dr. Sona Kakkar, Md., [3]dr. Suresh Bada Math, Md, Ph.D, [4]dr. Mrugesh Vaishnav, Md.

Affiliation:
[1]professor Psychiatry Kims, Narketpally & Ex-Incharge Family Therapy Ignou Centre, Nagpur/Mumbai
[2]consultant Psychiatrist & Family Therapist, Hyderabad
[3]professor Of Forensic Psychiatry, Nimhans, Bangalore
[4]consultant Psychiatrist & Expert In Marital & Sexual Therapy, Ahmedabad

Construct of symposium

Any living entity must adapt and change in order to survive and prevail. Family therapist plays major role in the state of difficult transtions/ conflict ladden relationships in couples. Little is known about legal issues that surprises family therapist if he/she fails in their endeavour to re-unite the couple on the verge of impending divorce.
We would like to share and discuss a virtual life example of fundamental misconceptions prevailing with family therapy processes and its efficacy rebound untoward implications.
We intend to enlight the evidence based mediating goals, models of choice, boundaries & precautions to be taken up by therapist. Seeking out in house opinion for dilemmas and legal mandate in case of specific situations of accusations by clients would also be an objective of the present symposium.
This symposium would further like to address and calls for action after due experts opinion for forming clear guidelines for treating psychiatrists/family therapist and for medical boards as well as legal system in the country for caring the wheel run of sudden change of fortunes in the process and drop-outs of marital and family therapy in india.

28. TITLE: ETHICAL AND LEGAL ISSUES IN THE PROCESS AND DROP-OUTS OF MARITAL AND FAMILY THERAPY IN INDIA

PANELIST: [1]DR. PRAVEEN KHAIRKAR, MD., [2]DR. SONA KAKKAR, MD., [3]DR. SURESH BADA MATH, MD, Ph.D, [4]DR. MRUGESH VAISHNAV, MD.

AFFILIATION:
[1]PROFESSOR PSYCHIATRY KIMS, Narketpally & EX-INCHARGE FAMILY THERAPY IGNOU CENTRE, NAGPUR/MUMBAI
[2]CONSULTANT PSYCHIATRIST & FAMILY THERAPIST, HYDERABAD
[3]PROFESSOR OF FORENSIC PSYCHIATRY, NIMHANS, BANGALORE
[4]CONSULTANT PSYCHIATRIST & EXPERT IN MARITAL & SEXUAL THERAPY, AHMEDABAD

CONSTRUCT OF SYMPOSIUM

Any living entity must adapt and change in order to survive and prevail. Family therapist plays major role in the state of difficult transtions/ conflict ladden relationships in couples. Little is known about legal issues that surprises family therapist if he/she fails in their endeavour to re-unite the couple on the verge of impending divorce.
We would like to share and discuss a virtual life example of fundamental misconceptions prevailing with family therapy processes and its efficacy rebound untoward implications.
We intend to enlight the evidence based mediating goals, models of choice, boundaries & precautions to be taken up by therapist. Seeking out in house opinion for dilemmas and legal mandate in case of specific situations of accusations by clients would also be an objective of the present symposium.
This symposium would further like to address and calls for action after due experts opinion for forming clear guidelines for treating psychiatrists/family therapist and for medical boards as well as legal system in the country for caring the wheel run of sudden change of fortunes in the process and drop-outs of marital and family therapy in india.

29. Dealing with Obsessive compulsive disorder: New methods of pharmacology and psychotherapy

Dr Suvendu Narayan Mishra
Associate Professor
Department of Psychiatry, IMS and SUM Hospital, Bhubaneswar, Odisha
Email-dr.sar07@gmail.com
Dr Debadatta Mohapatra
Assistant Professor
Department of Psychiatry, IMS and SUM Hospital, Bhubaneswar, Odisha
Email-2000debee@gmail.com
Mrs. Sayali Mishra
M.Phil,(Ph. D.)
Consultant Clinical Psychologist
BBSR. Email-saipsyche@rediffmail.com

Dealing with Obsessive compulsive disorder: New methods of pharmacology and psychotherapy
Outline of the Proposed Symposium:
Obsessive Compulsive Disorder: History and Current status of Obsessive Compulsive Disorder:
Obsessive Compulsive disorder is a common chronic and disabling disorder marked by obsession and/or compulsion that are ego dystonic (unwanted behaviour) and causes significant distress to the patient & their families. There are many other disorders which share some features

with obsessive compulsive disorder. Obsessive-Compulsive and related disorders include OCD, Body Dysmorphic disorder, trichotilomania, hoarding disorder, excoriation disorder.

Recent advances in the pharmacological management of Obsessive Compulsive Disorder:

OCD is the fourth-most common psychiatric illness and a leading cause of disability. Meta-analyses of RCTs show that selective-serotonin reuptake inhibitors (SSRIs) are significantly more effective than placebo in the treatment of OCD. Higher prevalence of non responders requires many augmenting strategies. Obsessive compulsive and related disorders needs to be addressed since the management of which is essential for better prognosis.

The newer psychological therapies for Obsessive Compulsive Disorder:

The traditional approaches to treat OCD include mainly behavior or cognitive behavioural therapies which emphasis on techniques like habituation, exposure and response prevention or thought stop. In order to deal with pure obsessions (without compulsions), psychologists have also developed cognitive techniques which are derived from the cognitive theories of OCD. They deal with underlying cognitive processes of thought-action fusion, magical thinking, patient's sense of inflated responsibility etc.

The new methods of treating OCD have come up with the inclusion of third wave psychotherapeutic methods such as cognitive drill therapy, acceptance and commitment therapy and mindfulness based cognitive behavioural interventions which are helpful to deal with more complex OCD symptoms through advanced, focused methods.

SYMPOSIUM 30. Study on Gap Analysis in Mental Health Care Services in Child Care Institutions (CCI) of Delhi State

ame of Presenting Author: Rajesh Sagar
Affiliation of Presenting Author: AIIMS
Co-Author Name 1: Bichitra n Patra
Co-Author Name 2: Prashant Gupta
Co-Author Name 3: Mohit Kumar

Children and adolescents in low and middle income countries (LAMIC) like India constitutes 35–50% of the population. In India, the total number of children in the age group 0-6 years as per the population totals of Census, 2011, is 158.8 million. An estimated 200,000 children in the India are in about 5,000 Observation and Children's Homes (Child care institution), and the numbers are growing. According to Juvenile Justice Rule, 2011, minimum facilities of mental health needs of children in Child care institution (CCI) should be there. This study funded by the National Commission of Protection of Child Rights (NCPCR) examined the current existing mental health facilities in the CCIs and found the gap in mental health care services in them and came up with valuable recommendations. In this study, the research team visited 20 CCIs (17 children homes and 3 observation homes) in Delhi. The research team comprising of psychiatrist and psychologist examined the physical and mental health, applied structured psychological scales/instruments to measure the mental health of the children of the CCIs after obtaining due Ethical clearance.

The CCIs do not have any provision to address the mental health needs of the caregivers. The caregivers reported exhaustion and burn out. The common behavioral problems found are hyperkinesis, conduct problems, learning difficulties, emotional problems, self-injurious behaviors, adjustment problems and substance use (commonly tobacco).

Based on these finding, the research team in its report made several recommendations like all children needs to have regular check up by mental health professionals, to be watched for substance use and proper record keeping of the same. The report also recommends addressing the caregiver burden and burn out. Other recommendations are addressing abuse, life skill training, sex education, career and guidance counseling and providing other medical facilities including immunization and HIV awareness.

31. NAME OF THE TOPIC---TRYING TO UNDERSTAND CONSCIOUSNESS FROM DIFFERENT PERSPECTIVES

NAME OF PARTICIPANTS----
1) DEBASISH SANYAL, M.D.
Professor and Head of the Department, Department of Psychiatry, KPC Medical College, Jadavpur, Kolkata, WEST BENGAL
2) SYED NAIYER ALI, M.D.
Assistant Professor, DEPARTMENT OF PSYCHIATRY, KPC Medical College, Jadavpur, Kolkata, WEST BENGAL
3) Dr. Tathagata Chatterjee, M.D.
Senior Resident, DEPARTMENT OF PSYCHIATRY, KPC Medical College, Jadavpur, Kolkata, WEST BENGAL

Developing understanding about human consciousness is possibly one of the most complex challenges facing mankind. While great hopes were repeatedly raised with advent of imaging, electrophysiological and neuropsychological assessments, consciousness still remains mostly unexplained. With advent of computers and information technology, hope of modeling human minds and concept of artificial intelligence gained ground. Computers were able to defeat human players in the game of chess which for longtime has been regarded as a game involving high level of intelligence. However, proper understanding of consciousness remained elusive.

Gradually, it has become apparent that any attempt to understand consciousness involves need to involve multiple perspective.

First speaker will overview of complex issues in consciousness-discuss definition, functions phenomenological perspectives, concept of qualia, free will, forms and kinds and various ways of studying consciousness, continuum of consciousness, artificial intelligence, computational neuroscience, issue of noncomputability in consciousness, interface with quantum physics

Second speaker will cover Neurobiological perspective of consciousness including Neural corelates of consciousness, finding from imaging and electrophysiological studies, cognitive neuroscience of consciousness.

Third speaker will touch upon both Western philosophical perspectives (Rene Descartes - John Locke,G.W Leibniz ,Immnueal Kant) along with Eastern viewpoints(Vedantic and Buddhist concept of consciousness, viewpoints of Sankaracharya,Ramanuja).

In our symposium, we will try to explore possibility using these to develop some basic understanding of consciousness in a holistic manner.

SYMPOSIUM 32. ALZHEIMER'S DISEASE-THE KASHMIR SCENARIO

Dr Arshad Hussain (Professor IMHANS-K)
Dr Insha Rauf (Registrar IMHANS-K)
Kamraan Nissar ()
Dr Sabreena Qadri (Lecturer IMHANS-K)

INTRODUCTION

Alzheimer's disease, the leading cause of dementia affects about 10% of those aged above 65 and about 30% of people aged above 80. WHO projections suggest that by 2040, if growth in the older population continues, with no preventive measures in place 71% of the global burden (81 million cases) of dementia will be in the developing world[77]. It is therefore imperative for researchers to focus on the risk factors of dementia so that primordial and preventive prevention measures can be put into place.

LONELINESS, SOCIAL NETWORK, SOCIAL SUPPORT, TRAUMATIC LIFE EVENTS AND ALZHEIMER'S DEMENTIA – IS THERE A LINK?

100 patients with DSM IV diagnosis of Alzheimer's dementia (AD) with score <23 on MMSE(Kashmiri version) and 50 age matched controls were assessed for loneliness, social support , social network and traumatic life events (TLE) using De Jong Gierveld loneliness scale, Lubben Social Network Scale and Traumatic life events checklist. Loneliness was associated with an increased risk of developing AD (OR 1.19, {1.04-1.36} CI, p=0.011). Social network and social support were not associated with an increased risk of developing AD. The mean number of TLE was not associated with an increased risk of developing AD, however specific events such as death of a child were associated with an increased risk of developing AD.

EVALUATION OF ACE POLYMORPHISM AND ALZHEIMER'S RISK IN KASHMIRI POPULATION

59 clinically confirmed cases of Alzheimer's disease and 52 age and gender matched controls from the Kashmiri population were assessed for polymorphisms of the Angiotensin-converting enzyme (ACE) gene polymorphism. Our data revealed a statistically significant association of I/D heterozygous genotype of ACE with the Alzheimer's disease susceptibility in Kashmiri population.

SYMPOSIUM 33. NAME OF THE TOPIC---application of neuroeconomics in psychiatry

NAME OF PARTICIPANTS----
1) DEBASISH SANYAL, M.D.
Professor and Head of the Department, Department of Psychiatry, KPC Medical College, Jadavpur, Kolkata, WEST BENGAL
2) AMLAN KUSUM JANA, M.D.
Associate Assistant Professor, DEPARTMENT OF PSYCHIATRY, KPC Medical College, Jadavpur, Kolkata, WEST BENGAL
3) SYED NAIYER ALI, M.D.
Assistant Professor, DEPARTMENT OF PSYCHIATRY, KPC Medical College, Jadavpur, Kolkata, WEST BENGAL
4) Dr. Tathagata Chatterjee, M.D.
Senior Resident, DEPARTMENT OF PSYCHIATRY, KPC Medical College, Jadavpur, Kolkata, WEST BENGAL

Economics, psychology and neuroscience are converging into a new, unified discipline referred to as neuroeconomics. Neuroeconomics attempts to explain human behavior by understanding the processes that connect sensation and action, thus revealing the neurobiological substrate of decision-making This theory can be used as a framework to study various psychological, social and neural systems including learning, movement, social cooperation, brain reward pathways and neurotransmitter systems.

Concept of utility function in economic decision theory can be used to explain depressive symptoms with regard to lack of interest in money. Second, differences in attitudes toward uncertainty and risk suggest that avolition and anhedonia can be expected to reduce the influence of uncertainty on decision making. Third, some parametrically varied values of delay discounting show the relation of discounted value to risk of addiction. Finally, economic game theory can provide a model including social factors to address psychiatric conditions; thus, it provides a useful framework for the current diagnostic classification systems for consideration of interpersonal factors.

Neuroeconomics gains extra strength from three features that may help it reach beyond its beginnings: 1) its capacity to connect decision-making variables to details of neural circuits including details extracted from model animal systems; 2) its natural connection to computational theory with the best example being reinforcement learning and 3) its connection to game theory.

This symposium will review recent evidence from neuroeconomics and psychiatry in support of applying economic concepts such as risk/uncertainty preference, time preference and social preference to psychiatric research to improve diagnostic classification, prevention and therapy

First speaker will overview neuroeconomics-discuss definition, theories, mathematical overview

SYMPOSIUM 34. Novel approaches to enhance the efficacy and utility of transcranial magnetic stimulation in psychiatric disorders

Chairpersons:
1. Dr. YC Janardhan Reddy, Professor of Psychiatry, National Institute of Mental Health and Neuro Sciences, Bengaluru.
2. Dr. Samir Kumar Praharaj, Professor of Psychiatry, Kasturba Medical College, Manipal.
Presenters:
1. TMS in mood disorders: Recent advances and investigative applications
Muralidharan Kesavan, Professor of Psychiatry, National Institute of Mental Health and Neuro Sciences, Bengaluru
2. Innovations in TMS in schizophrenia research and treatment
Urvakhsh Meherwan Mehta, Associate Professor of Psychiatry, National Institute of Mental Health and Neuro Sciences, Bengaluru
3. Studying state-dependent plasticity with TMS and its applications in obsessive-compulsive disorder

Shyam Sundar Arumugham, Additional Professor of Psychiatry, National Institute of Mental Health and Neuro Sciences, Bengaluru

The ability of repetitive transcranial magnetic stimulation (rTMS) to produce targeted neuroplasticity in cortical regions has been employed to study the physiology of normal as well as the pathological brain. Its potential to produce sustained plasticity after multiple sessions has been exploited for clinical applications, especially in psychiatric disorders. While rTMS has emerged as a standard treatment for treatment-resistant major depressive disorder (MDD), factors such as duration of treatment and limited accessibility of deeper structures with standard coils limit its clinical application. In this symposium, we discuss recent research in TMS conducted at NIMHANS and elsewhere which show promise in improving the efficacy and clinical utility of TMS. Dr. Kesavan Muralidharan would discuss the recent advances in TMS technology such as theta burst stimulation, accelerated TMS and deep TMS which have shown promising results in decreasing the duration as well as improving the efficacy of treatment. Further, he would discuss recent research on motor cortical excitability, studied with TMS, in MDD as well as bipolar disorder, which have helped understand the role of GABA-ergic/glutamatergic system in mood disorders. Despite early promise, rTMS has shown inconsistent results for the treatment of schizophrenia. Dr. Urvakhsh Meherwan Mehta would discuss the possible reasons for such inconsistencies and recent research findings utilizing TMS in schizophrenia such as the study of mirror neuron activity, which has exciting clinical applications. Further novel targets such as cerebellum and combining rTMS with other interventions such as cognitive remediation may be the way forward. In contrast with the above disorders, the symptoms of obsessive-compulsive disorder (OCD) are usually triggered by external stimuli. Hence the neurophysiology in OCD patients may be state-dependent. Dr. Shyam Sundar Arumugham would discuss how the temporal specificity of TMS can be utilized to produce state-dependent plasticity and its applications in the understanding the pathophysiology as well as treatment of OCD. Further, recent advances in TMS technologies show promise in targeting deeper cortical regions such as anterior cingulate cortex which are implicated in the pathophysiology of OCD.

SYMPOSIUM 35. Title: Effect of high-frequency repetitive Transcranial Magnetic Stimulation (rTMS) in Cognitive function and predominantly Negative symptoms in person suffering from Schizophrenia in a randomized sham controlled double blind trial.

1.Prof Nand Kumar, 2. Dr Rohit Verma 3. Prof Shubh Mohan Singh,
1,2: AIIMS Delhi. 3:PGIMER Chandigarh

Introduction:
Schizophrenia is one of most debilitating psychiatric illnesses manifested by positive and Negative symptoms. The negative symptoms include affective flattening, alogia, anhedonia, and avolition. Antipsychotic agents have been shown to be most effective in reducing the positive symptoms of schizophrenia, but unsatisfactory in reducing negative symptoms. Therefore, developing a more effective therapy for negative symptoms is critical for improving schizophrenia treatment. Transcranial Magnetic Stimulation (TMS) is being explored for treatment of Negative symptoms in schizophrenia. In this symposium, we intend to present the role of rTMS in person suffering from schizophrenia with predominant Negative symptoms.
Methodology:
Total 504 patients were screened as per inclusion exclusion criteria and 100 subjects who met the inclusion criteria were included in the study.
The enrolled patients were randomly assigned to the active and sham groups using a randomization software. The active group (N = 50) and the sham group (N = 50) respectively received 20 sessions either active (real) rTMS (20Hz) or the placebo-controlled sham rTMS with sham coil. The subjects were blinded regarding the treatment being given, also the rater was blinded for the allocation. The subjects were assessed and followed up at baseline then after 1 months and 3 months with PANSS, SANS,CDRS and CGI.
Outcome:
Out of total 504 subjects enrolled for the study 310 did not meet the criteria, 65 patients refused for the rTMS intervention. The 10 patients dropped out for various reasons. The final outcome as per the assessment and follow up data will be discussed during the presentation.
Key word: rTMS, Schizophrenia, Negative symptoms

SYMPOSIUM 36. Addiction Psychiatry: Newer Developments

(Symposium from the Addictive Disorder Specialty Section of Indian Psychiatric Society)
Topics and Speakers:

1. Technological advances in the management of addictions	Debasish Basu *Professor, DDTC, PGIMER, Chandigarh*
2. Changing legal and policy environment for Substance Use: implications for psychiatrists	Atul Ambekar *Professor, NDDTC, AIIMS, New Delhi*
3. Advances in Training and Education in Addiction Psychiatry	Pratima Murthy *Professor, CAM, NIMHANS, Bengaluru*

The field of Addiction Psychiatry is rapidly advancing. Newer challenges are being faced by the professionals and simultaneously, novel options are being explored to overcome these challenges.
A major clinical challenge in the management of substance use disorders is ensuring adherence in treatment. Due to fluctuating levels of motivation, patients – even after entering treatment and initiating pharmacotherapies – often tend to display inadequate compliance which leads to poor outcomes. In addition, treatment professionals remain concerned about the potential for diversion and misuse of many of the medications used for pharmacotherapy. A number of technological advances have been introduced to address these challenges. Newer formulations of naltrexone, such as depot preparations or implants, have been developed which promise better compliance and thus improved outcomes. For buprenorphine, besides the fixed dose combination with naloxone, newer formulations like sublingual films and patches may serve to minimize the diversion. Using novel technologies, research on developing vaccines for a variety of substances is ongoing, aimed at prevention of onset or escalation of substance use disorders. Finally, in this digital era, e-technology has the potential to transform addiction management in many ways.
It is increasingly being understood that besides harms caused by psychoactive substances, the policies aimed at governing the availability of these substances have resulted in substantial collateral damage to the health and welfare of humankind. For the narcotic and psychotropic substances, there is increasing recognition of the futility of supply-control based approach and instead the global community is exploring options like harm-reduction, de-criminalization of personal consumption and even regulated availability for recreational use. Recognizing the health harms of legal and socially acceptable substances like alcohol and tobacco on the other hand, they are increasingly being subjected to more stringent control. At the same time options for harm-reduction in the context of these substances are also being explored.
While addiction psychiatry is increasingly being recognized as a super-specialty, there is simultaneous recognition of need to enhance the wider availability of low-cost treatment services, involving general health care settings. Building the capacities at all the required levels – from general physicians to psychiatrists to addiction psychiatrist – remains a challenge, particularly for a human-resource-constrained country like India. There is a need to modify the existing medical curricula to enable even general physicians to cater to the huge unmet demand of treatment. This needs to be supplemented with short term training courses for which technological advances like NIMHANS Digital Academy are very promising. Finally, the very enthusiastic response to recently started DM Addiction Psychiatry courses at three premier Indian institutes indicates a bright future for addiction psychiatry.

SYMPOSIUM 37. Prospective memory in patients with established and first-episode psychosis

P.Sulakshana Rao1,2, Madhavi Rangaswamy1, Jonathan Evans1,3, AnirbanDutt1,2, 4

1Department of Psychology, Christ University, Bangalore, India
2Duttanagar Mental Health Centre, Kolkata, India
3Institute of Health & Wellbeing, University of Glasgow, UK
4Department of Psychosis Studies, Institute of Psychiatry, Psychology & Neuroscience, King's College London, London, UK

Introduction
Individuals suffering from serious and enduring mental health problems such as psychotic disorders often have deficits in neuro-cognitive functions, including deficits in Prospective Memory (PM), which is the ability to carry out intentions after a delay. PM is important for activities of daily living, social and occupational functioning, yet relatively few studies have attempted to examine this problem in the South Asian setting, particularly in India.
Objectives & Methods
70 healthy controls and 40 patients with first episode psychosis and established schizophrenia were assessed in Kolkata, a socio-economically diverse, multi-ethnic and multi-cultural city. A set of neuropsychological tests including Digit Span, Auditory Verbal Learning Test, Brixton Spatial Anticipation Test, and the Cambridge Prospective Memory Test (CAMPROMT) were administered. In addition, PM questionnaires, the Prospective and Retrospective Memory Questionnaire (PRMQ) and Comprehensive Assessment for Prospective

Memory (CAPM) were administered. Group differences were assessed using Mann-Whitney U Tests.
Results
There were no group differences for age (p=.416), gender (p=0.26) and education (p=.569) between patients and controls. However, the patients had significantly greater difficulties in cognitive functions including attention (p<0.005), learning (p<0.001), memory (p<0.001) and planning (p<0.001). Patients performed significantly poorer on the both the time based
(p<0.001) and event (p<0.001) based subtest of CAMPROMPT in comparison to controls. Patients also reported significantly more problems with PM in everyday life on the PRMQ (p<0.005) and CAPM (p<0.005)
Conclusions
Cognitive deficits in domains such as attention, memory and planning for individuals with FEP/schizophrenia were evident. Difficulties were also evident in both time based and event based tasks of prospective memory. Even in the early stages of psychosis, PM deficits were prominent. Although promising, these findings would need to be replicated on a larger sample, accounting for other potential confounders, for generalisation of findings in the Indian population. Further data collection is being carried out in order to acquire more conclusive evidence.

SYMPOSIUM 38. An Exploration of the Role of Non-profit International Mental Health Networks: A Case Study of NNDC-IF

Sameen Hosseini, BS[3,4], Hina Sharma, Ph.D[4], Anita Rao, MD[2,3], Murali Rao, MD[1,3,4]

Department of Psychiatry, Loyola University, Chicago[1]
Department of Psychiatry, Northwestern University, Chicago[2]
National Network of Depression Centers- India Alliance, Chicago[3]
National Network of Depression Center- India Foundation, New Delhi[4]

More than 5.7 crore Indians, or 4.5% of India's population, suffer from depression.[1] The World Health Organization ranks depression as the single largest contributor to global disability. For example, it is estimated that by 2020 its burden may increase to 5.7% of the total burden of disease.[2] Additionally, depression is the major contributor to suicide deaths. These deaths number about 800,000 per year, 133,625 of which were individuals from India. In general, individuals suffering from depression are 1.52 times more likely to die.[1]
Approximately 15 crore people in India require mental health care. However, 70-92% of those individuals, depending on the state, did not receive treatment.[3] Mental health NGOs in India are working to address this treatment gap in addition to other factors that may inadvertently affect treatment including stigma, mental health literacy, and lack of mental health providers. Of these cohort of NGOs, a select few have partnered with international NGOs in order to form a collaborative network. We will explore two of these in particular, along with the novel NGO, The National Network of Depression Centers- India Foundation.
NNDC-IF was modeled on its American counterpart, the National Network of Depression Centers (NNDC), which was established in 2008 in collaboration with 25 leading clinical and academic institutes in the US. NNDC-IF shares the intent of NNDC to advance research, eradicate stigma, and connect its members. However, it reprioritizes these goals to most focus on mental health literacy and stigma. Similarly, NNDC-IF ensures sustainability by tapping into the country's mental health leaders when establishing the organization. NNDCI-IF takes this unique approach in order to instill cultural relevancy in every one of its organization's international branches. These three elements, namely reprioritization, sustainability, and cultural relevance, highlight the measures that need to be taken to adopt NGO models in different international settings.
Keywords: Depression, Mental Health, NGOs, Stigma, Education

References

1. *Depression in India- Let's Talk* (Rep.). (2017). World Health Organization.
doi:http://www.searo.who.int/india/depression_in_india.pdf
2. Grover, S., Dutt, A., & Avasthi, A. (2010). *An overview of Indian research in depression.* Indian Journal of Psychiatry, 52(Suppl1), S178–S188. http://doi.org/10.4103/0019-5545.69231
3. National Mental Health Survey of India, 2015-16: *Prevalence, Pattern and Outcomes* (Rep.). (2016). National Institute of Mental Health and Neuro Sciences. doi:http://www.nimhans.ac.in/sites/default/files/u197/NMHS Report (Prevalence patterns and outcomes) 1.pdf

SYMPOSIUM 39. THE SCIENCE AND ART OF EMOTIONS- "I FEEL THEREFORE I THINK"

Name of Presenting Author: Dr ADNAN KADIANI

Affiliation of Presenting Author: PSYCHIATRIST at D.Y Patil Hospital,Pimpri ,Pune
Co-Author Name 1: Dr Spandana Devabhaktuni
Co-Author Name 2: Dr Shivang Agarwal
Co-Author Name 3: Dr Raju Kolagani

A patient comes complaining of 'not feeling good', but what does that not feeling good mean? Is he feeling sad or fearful? namely is he more anxious or predominantly depressed. If it is the later than he could be feeling guilty or shameful or despair or maybe abandoned. He could be feeling shame for not being a good enough person or guilty for not being able to stop his impulsive behaviour. He could be feeling abandoned due to the belief that his loved ones are now against him and are trying to harm him, or despair because he is powerless in controlling his addictive behaviour. Emotional phenomena bring out, more urgently than other phenomena, the complex interplay of impersonal-biological and personal features of mental illness to be able to understand the meaning of the different types of emotions and to be able to pin point the exact one is clearly of diagnostic, therapeutic and prognostic importance.
The workshop will start with a talk on how the study of emotions evolved over the years the different theories used to explain emotions-cognitive theories and feeling theories. The next topic covered would be the neurological basis of emotions including the concept of mirror neurons. The Talk will then move on to cover the nuances and shades of the different emotions and the meaning of each one of them, clips from movies will be used to do so. Lastly modern techniques which used to catch visual and tonal patterns of different moods will be talked about.

SYMPOSIUM 40. "Gut-Brain-Microbiota axis in Psychiatry"

Gut-Brain-Microbiota Axis-a primer: Dr E .Mohandas
Gut Microbes-Relevance in Psychiatry: Dr Rajesh Nagpal
Gut Microbes and Neurocognition: Dr Venugopal Jhanwar
Gut Brain-Microbiota in Children: Dr. Darpan Kaur

The gut microbiome comprises the collective genome of roughly 100 trillion microorganisms residing in the gastrointestinal tract constituting a biomass of 1.5 kg.The gene repertoire of our gut bacteria contains 150 times more unique genes than the human genome. The fetal gastrointestinal tract is sterile prior to birth with microbial colonization first occurring at delivery. However, the type of delivery and breast feeding alter the microbial status of the gut. Other factors influencing gut microbes include life Style, nutritional habit and antibiotic use.
There is a bidirectional influence between brain and gut microbiota. The central nervous system, autonomic nervous system and enteric nervous system are involved in the gut-brain-microbiota axis. Direct activation of the vagus nerve from the enteric nervous system to central nervous system on the one hand and signals from the central nervous system and neuroendocrine system directed to gut on the other will determine the biological effects of gut-brain-microbiota.
Gut microbiota levels have a strong effect on brain function in terms

of anxiety, cognitive dysfunction, depression, emotions, motivation, memory formation, affective behaviors, decision making and emotional arousal. The current evidence on the role of gut microbes in psychiatric disorders and probable treatment strategies will be discussed.

SYMPOSIUM 41. PCOS : A PSYCHIATRIC DISORDER

Dr Arshad Hussain (Professor, Institute of Mental Health and Neurosciences, Kashmir)
Dr Rajesh Chandel (Consultant,Department of Health, Jammu) Dr Sabreena Qadri (Lecturer, IMHANS-K)
Dr Insha Rauf (Senior Resident, IMHANS -K)

Polycystic ovary syndrome (PCOS), one of the most common endocrine disorder of women, is a heterogeneous disorder of unclear etiology, simply defined as the presence of hyperandrogenism and/or chronic anovulation in the absence of specific adrenal and/or pituitary disease. Preliminary studies suggest a complex relationship between psychiatric and endocrine disorders,both influencing each other.

Prevalence of psychiatric disorders in patients with a diagnosis of polycystic ovary syndrome in Kashmir

110 patients of PCOS (diagnosed by NIH criteria) were evaluated for presence/absence of psychiatric disorders using DSM-IV criteria by means of MINI plus. About 23% of cases had major depressive disorder(7.5% in controls), 1.8% had dysthymia, 15.45% had panic disorder(5% in controls), 6.36% had obsessive compulsive disorder(2.5% in controls),8% cases had suicidality, 2.72% of cases were bipolar affective disorder and 15.45% had generalized anxiety disorder (GAD).

Polycystic Ovary Syndrome in Bipolar Affective Disorder-A hospital based study

200 female patients with DSM-IV diagnosis of bipolar affective disorder were evaluated to assess the comorbidity of PCOS and to study risk factors associated with this comorbidity. PCOS was diagnosed by NIH criteria. Out of 200 patients with BPAD, 46(23%) were diagnosed as having polycystic ovarian syndrome(PCOS). 45% reported menstrual disturbances while 27% had polycystic ovaries on ultrasonography. 19.2% of the patients diagnosed as PCOS had a history of valproate intake.

Mood-Anxiety Complex of PCOS (MAPCOS)

After backgound research on PCOS, we propose a new disorder "Mood- Anxiety Complex of PCOS (MAPCOS)". All patients of PCOS who were screened or treated had pananxiety symptoms, predominantly obsessive. They also had mood changes, severe enough to cause socio- occupational dysfunction but threshold probably below bipolarity or borderline personality disorder. We also propose same etiopathogenetic mechanisms (lifestyle changes) as common pathways for endocrinological and psychiatric manifestations.

SYMPOSIUM 43. Symposia: Juvenile De addiction Rebuilding Childhood

Dr Mayuri Buragohain, Dr Varsha Mahadik Dr Jateen Ukrani

Drug use amongst children is rapidly increasing in Delhi and parts of Northern India. Studies have shown that as many as 70% children have smoked a cigarette or consumed inhalants by the tender age of 13. While the problem continues to rise, there is limited knowledge in this field. Treating children with substance abuse poses unique challenges but with the right management and treatment, these children may have a bright future. This symposium aims to discuss the extent of problem; the challenges faced in treatment, work done in this area so far and review the various treatment options available for these children.

Key Words:- Delhi and NCR, Juvenile
Substance Abuse,

SYMPOSIUM 44. Recent Good Practices & Emergence of School Mental Health in India

The Way Ahead… For Behavior & Emotional Safety in Schools

CHAIRPERSON
Dr. Prabhat Sitholey, Former Professor & Head, Dept of Psychiatry, King George's Medical University, Lucknow
SPEAKERS
· *Dr. Rushi, Associate Professor & Department of Clinical Psychology (PGIMER), Dr. RML Hospital, New Delhi.*
· *Dr. Jitendra Nagpal, Sr. Consultant Psychiatrist and Incharge, Instt. of Mental Health and Life Skills Promotion, Moolchand Medcity, New Delhi*
Program Director - Expressions India: The National Life Skills, Values Education & School Wellness Program.
· **Dr. Vivek Agarwal, Professor of Psychiatry, King George's Medical University, Lucknow**

CHILDHOOD AND ADOLESCENCE is a time in life span when maximum changes take place in terms of career choices, relationships, attitudes, roles etc. and have its bearings on the overall functioning of the individual. The development of children is the first priority in India's development Agenda because they are our supreme assets and also the future human resource of our country". A Mental Health Promoting School is a setting where education and health programmes create a Wellbeing Environment that in turn helps in promoting enriched learning. In the context of changing times, it is imperative that an appraisal be made of the psychosocial needs and influences on the child and adolescent of the nineties who is leading the baton of human chain into the 21st century. The symposium envisages to discuss in detail the macro and micro elements of psychosocial wellbeing as a paradigm of the new policy of education (2018) and the inclusivity of mental health support for holistic development of school going young minds across the country. The proposed rural and urban model is a combined pioneering and pathbreaking approach to revolutionize the community-based child and adolescent mental health transformation in India. The legal aspects and the new PWD Act including the POCSO Act and allied areas shall be a crucial focus of this symposium.

WHO (2016) report on mental health estimates that nearly 20% of children and adolescents suffer from a disabling mental illness worldwide. India has one of the highest suicide rates worldwide, 2nd leading cause of death of young people in India (Aaron et al., 2004). About 90% of diagnosable psychiatric illness usually depression is strongest predictor of suicide (Ang & Huan, 2006; APA, 2004,: Manjula et al., 2015)..

THE INDIAN SCENARIO

- 10-13 % of < 18 yrs suffer from mental health and behavioral disorders. (ICMR)
- WHO – Serious Emotional Disturbances in young people – 15%
- 10-15% of those aged 16 and below suffer from a diagnosable psychiatric disorder
- Depression can lead to suicide, now the second leading cause of death amongst 15-29-year olds
- Suicide accounts 25% of deaths in boys and 50-75% of deaths in girls aged 10-19 years.

AIMS

The symposium aims to:

- Highlight the importance of A Mental Health Promoting School where education and Mental health programmes create a "health promoting" environment that in turn "promotes learning".
- Increase audience awareness of types of mental health programmes in schools, setting up of such a programme and its benefits.
- Highlighting the active involvement of teachers in mental health programs by enabling an understanding on the ways in which learning occurs and the importance of creating plausible situations conducive to learning so that the interventions can reach a larger population
- Appreciate the need to revisit the School Counselors profile and understand the urgency for clarifying and enhancing their role and responsibility.

- Enrich the role of Clinical and Counseling Psychology for supporting School Mental Health Programs in India.

SYMPOSIUM 45. Title: Digital assistive technology (DAT) for persons with developmental disabilities

Name of Presenting Author: SHARAD PHILIP
Affiliation of Presenting Author: SENIOR RESIDENT NATIONAL INSTITUTE OF MENTAL HEALTH AND NEUROSCIENCES BANGALORE
Co-Author Name 1: SUBHASHINI K R
Co-Author Name 2: BHASWATI KALITA

Outline: The symposium will focus on the following areas with regards to DAT.

1. Introduction to AT.
2. Terminology, origin and current working definitions
3. Legislative mandate for assistive technology in various countries.
4. What is digital and non-digital assistive technology?
5. A brief overview of developmental disabilities.
6. Purported benefits of DAT in developmental disabilities.
7. DAT for children with developmental disability (DD) – available options and review of evidence, elaborating on educational vs non-educational DAT, DAT for children with Intellectual Disability, Autism Spectrum Disorder, Speech and communication difficulties, Attention Deficit Disorders.
8. Differences in utility and design of DAT between children, adolescents and adults.
9. DAT for adolescents and adults with developmental disability (DD) – options and review of evidence.
10. Synthesis of current options and evidence - based recommendations for DAT use in DD.
11. Legislative provisions, availability under Government schemes and potential ways of procuring DAT.
12. Summary and Take-home message.
13. Useful links and references.

Conflict of interest: None

SYMPOSIUM 46. Creativity as prescription! Creativity and mental health therapeutics

1. Introduction -Dr.Vinay Kumar , Consultant Psychiatrist, Manoved Mind Hospital, Patna
2. Positive Mental effects of Music: Dr Vishal Sinha, Agra
3. Body Movements and mental health-Dr.K.S.Pavitra,Shimoga
4.Therapeutic effects of Visual Arts - Dr.Debasis Bhattacharya,Kolkata

The process of making art — whether be it writing, painting, singing, dancing, or anything in between — is good for us. There are both physical and mental benefits of art and creativity, which is essentially expressing yourself in a tangible way, and sharing something with the world. There is a growing body of evidence which shows that different creative art forms being prescribed have a positive impact on a variety of health conditions. There has been strong evidence emerging that prescribing specific arts activities for mental illnesses can have some unique benefits. Take singing, for example. Research has demonstrated that it can have a positive impact on mental health and wellbeing. In fact, several studies undertaken with older people have found that community singing appears to have a significant effect on their quality of life – helping ameliorate the effects of anxiety and depression. The creative activities can create social connections and might be hugely beneficial in mental illnesses where the social isolation is one of the prominent barriers for recovery. But these findings need to be put in to practice by the Clinicians.

The symposium will discuss therapeutic effects of music, movement and visual art forms and the current evidence for the use of these creative forms in the treatment of mental illnesses.

20 min for each speaker, 10 min for discussion

SYMPOSIUM 47. NEURODEGENERATION: Devashish Konar, Consultant Psychiatrist, Mental Health Care Centre, Burdwan

NEUROREGENERATION: Debjani Bandhopadhyay, Consultant Psychiatrist, Manasij, Burdwan
NEUROPROTECTION IN PSYCHIATRIC DISORDERS: Om Prakash Singh, Consultant Psychiatrist,
AMRI Hospital Dhakuria, Kolkata

With all major psychiatric illnesses there are evidences of neurodegeneration, neuroanatomically, neurochemically, and neurophysiologically. With psychological and medical intervention neuroregeneration is possible and with modern technology you have evidence for that. Brain undergoes different stresses all the time. Managing them adequately in right time provides less toxic internal environment for the brain. Preservation of neuronal structure and function is known as neuroprotection.

Neurodegeneration:

We are still in the process of understanding the mechanisms of neurodegeneration which is responsible for the major psychiatric illnesses. The basic understanding of it may be crucial for further advancement of treatment.

Neuroregeneration:

Neuroregeneration is the focus of new age treatment for diseases that involve neurodegeneration. Neuroregenerative science is in its infancy with huge potential of being used in treatment at more basic and physiological level, where therapy induces the body to heal from within.

Neuroprotection:

Neuroprotection tries to limit excitotoxicity and oxidative stress which are significantly associated with basic mechanisms of neurodegeneration. Neuroprotection is the mechanism for maintaining homeostasis and functional integrity against any neurodegenerative or neurotoxic insults. Scientists of this generation are focusing on neuroprotection to find more physiological solution to prevent and ameliorate many of the important psychiatric illnesses.

SYMPOSIUM 48. Various methods of inpatient opioid detoxification:Ultra rapid vs Slow;Agonist vs Antagonist-An Indian perspective

Name of Presenting Author: Dr.Sarabjit Singh
Affiliation of Presenting Author: Neuropsychiatric hospital & ANR centre,Jalandhar
Co-Author Name 1: Dr. Ashmeet Singh
Co-Author Name 2: Dr.V.Subbalakshmi kota
Co-Author Name 3: Miss.Poornima Mahindru

Background: Globally, a rampant increase in opioid use has been witnessed. According to a survey conducted in the state of Punjab, India among the 18-35 years age group , about 4 in 100 are opioid dependent and about 15 in 100 could be opioid users.There is a growing concern of medical/prescription opioid being abused. A vast majority of cases go untreated because of various reasons like lack of motivation to quit, lack of awareness, inadequate support, co morbid medical or psychiatric illness and social factors.

Pharmacological strategies currently available for opioid dependence include outpatient opioid substitution therapy and the less popular inpatient detoxification methods. There is abundance of research supporting outpatient based opioid substitution therapy and harm reduction strategies.

Material and methods: Our current study compares the various inpatient management strategies for opioid dependence. In our centre we offer ultra rapid detoxification as well as slow detoxification. Need for comparison arises as the principle, method and duration of both the strategies differs.

Results: Past 2years inpatient data showed a total of 345 patients underwent detoxification of which 125 patients opted for ultra rapid

detoxification. The advantages of the ultra rapid group included a shorter duration of withdrawal symptoms as well as a shorter duration of stay; early and easy initiation of antagonist; no risk of agonist abuse/ prescription opioid abuse. There was a significant difference in pain score reduction in cases of ultra rapid detoxification. Contrary to the literature available no significant complications were encountered during the procedure.

Conclusion: With proper pre anesthetic assessment, adequate precautions and financial affordability ultra rapid detoxification can emerge as an alternative treatment strategy for opioid dependence. Further studies are necessary to know the relapse rates and for the cost benefit analysis.

SYMPOSIUM 49. Different facets of providing mental health care for different disadvantaged communities

Pallab K Maulik, Sudha Kallakuri, Siddhardha Devarapalli, Amanpreet Kaur, Mercian Daniel

Mental disorders and self-harm are currently estimated to account for almost 8.5% of all disability adjusted life-years worldwide. Recent National Mental Health Survey in India estimated lifetime prevalence of any mental disorder among adults is about 15%, with nearly 150 million in need of treatment. The treatment gap for mental disorders in India is huge and is particularly pronounced among disadvantaged groups. The symposia will bring together five speakers who will present on facets of mental health care for different disadvantaged communities using data from quantitative and qualitative research conducted by them:

(1) The Systematic Medical Appraisal, Referral and Treatment (SMART), mental health programme among rural populations in Andhra Pradesh;
(2) Addressing mental health issues among adolescents living in urban slums of Hyderabad and New Delhi;
(3) Mental health systems and the mental health seeking behaviour of the people in the remote Scheduled Tribe areas in Andhra Pradesh;
(4) Meeting the treatment and care needs of terminally ill patients and addressing issues that confront palliative care providers – results from Bengaluru; and
(5) Rehabilitative (both public and private) health services for patients with severe mental disorders and their families – report from a study in Delhi NCR.

Keywords – mental health services, public health, disadvantaged populations, tribal mental health, palliative care, adolescent mental health, severe mental disorders

SYMPOSIUM 50. Progressing dialogues in Psychiatric Prevention: Beyond text and in the Field

Topics & Speakers:-

1- Health Promotion and Morbidity Prevention in Substance use Disorders. Evidence base and Experiences from Indian Perspective:- Dr Kabir Garg

2- Community Mental Health Services in Preventive Psychiatry :- Dr Seema Singh

3- Psychiatrists as influencers: shaping public and beaurocratic opinion for psychiatric prevention:-Prof Roy Abraham Kallivayalil Secretary General WPA

4- Home based rehabilitation: tertiary prevention with least restriction:- Prof Rakesh Chadda

5- MHCA 2017/ NMHP 2013 and RPWD 2016. Psychiatric Prevention and Promotion for the Indian polity:- Prof T V Asokan Past President IPS

Chair- Dr U C Garg Secretary WPA Section for Preventive Psychiatry

While traditionally Psychiatric prevention and mental health promotion have been underrepresented in literature and research, now it is increasingly being given importance by clinicians, policy makers and service users alike. It has been repeatedly demonstrated that preventive strategies and promoting health are cost effective in terms of reducing the eventual morbidity and need for intensive interventions while also are desirable for clinicians and clients as they reduce the chances of personal suffering. With more and more innovations in the field and legislations around the world emphasizing its importance, Preventive psychiatry has now percolated theoretical concepts in literature to everyday practice with suitable steps for all levels of resources. Frequent discussions and discourses at forums are necessary to facilitate this percolation, to educate clinicians and influencers around the world so that increasing number of service users can benefit from the efforts.

SYMPOSIUM 51. The Psychological Impact of the Partition of India: A discussion on conflict, trauma and psychological impact

Alok Sarin, Sanjeev Jain & Pratima Murthy.

The partitioning of the Indian sub-continent was accompanied by a large transmigration of populations. This migration was punctuated by a hitherto unseen level of trauma in the form of arson, looting and violence across the newly formed nation states. This has been the subject matter of exploration in literature, film, sociology and psychology. Interestingly, mainstream psychiatry has been intriguingly silent on the nature of psychological impact of either the migration or the violence.

In a recently published book, The Psychological Impact of the Partition of India,

the authors explore this area using a interdisciplinary approach.

In this session, the authors bring together a panel of mental health professionals

to further extend that exploration.

SYMPOSIUM 52. Modern Crimes & Psychiatry

Dr Jateen Ukrani
Dr Indla Ramasubba Reddy
Director - VIMHANS Vijayawada

Psychiatry and law have been associated with each other since Mc Naughtens rule came into force. While forensic psychiatry is taught to all post graduates it is also a branch of criminology. It includes explanations of criminal behaviour and criminality, including the role of mental disorder in crime, and discusses how psychiatry contributes to helping investigate the crime and catching the perpetrators Though the Association between law and Psychiatry is old, In recent times some new psychological phenomenon are becoming prevalent which are posing unique challenges to psychiatrists from around the country and baffling police. This talk aims to discuss these new age psychological phenomenon like blue whale game, burari suicides, cyberbullying and cybercrimes, child abuse, etc which have warranted a police investigation amid media outrage. The talk also focusses on new techniques like psychological autopsy which are being used for solving such crimes and how the scenario may change for Psychiatrists in the Modern age.

SYMPOSIUM 53. Abstract: MENTAL HEALTH – NATION'S WEALTH : PERSPECTIVES FROM PRIVATE PRACTITIONERS

Name of Presenting Author: Swaminath G
Affiliation of Presenting Author: Consultant Psychiatrist
Co-Author Name 1: Nanasaheb Patil
Co-Author Name 2: Abhay Matkar

Private practitioners have an important role in mental health services delivery, and patients have relatively good experiences with services. Patients in private practice have generally better experiences than patients in public outpatient treatment, whether it is in treatment outcome, consultation time with clinician, clinicians' comprehension of

patient's concerns, appropriateness of treatment, execution of follow-up plan, and influence on treatment.

The role of private practitioners is often not restricted to their responsibility as therapists in their clinics. Few of them embrace an add-on obligation towards community too, which in addition fulfils their inner strivings.

This symposia is conducted by three speakers with experience both in academia as well as private practice. The challenges which have been managed by them outside of the consulting room include working with the tribal population, homeless persons with mental illness, provision of free psychotropic medication to the needy, promotion of mental health in vulnerable populations such as school and college students, prevention of addiction and suicide, and use of media to promote mental health. These experiments have been arduous but satisfying, however, there have been many missed opportunities in the process, and many lessons learnt. The symposium highlights the journey of the three speakers in these trials and the issues in surmounting them to benefit the populace, improve their health and thereby improving nation's wealth.

SYMPOSIUM 54. IPS (Indian Psychiatric Society)-IMA (Indian Medical Association)-RCPsych (Royal College of Psychiatrists, UK: South Asia Division) Joint symposium on helping Doctors and Medical students with emotional and mental health problems

Presenters:

1. Dr. Nilima Kadambi, Consultant Plastic Surgeon, Chairperson of the National IMA Committee for Emotional Health and Emotional Well-being for Medical Students and Doctors in India

2. Dr Sandip Deshpande, Consultant Psychiatrist, Member IPS, IMA, Chair of the Royal College of Psychiatrists, UK: South Asia Division

3. Dr Ashlesha Bagadia, Consultant Psychiatrist, Member IPS, Finance Officer of the Royal College of Psychiatrists, UK: South Asia Division

Background: India seriously lacks adequate mental and emotional health services for its large workforce in the healthcare space – namely doctors and medical students. There is a great need for a support service for Doctors and medical students in India.

The IMA in association with IPS and RCPsych-South Asian Division aims to launch a series of initiatives including a dedicated helpline for doctors and medical students in India. The primary objective of the helpline will be to provide first line support for doctors and medical students who need assistance in emotional and mental health emergencies. The helpline will provide a confidential service which offers information, support, guidance and referral for individuals who may be affected in any way by matters concerning emotional or mental well-being.

To help tackle the issue of stigma, the helpline will be an anonymous service. It will provide wide coverage using modern technology which will also aid ease of access to services.

Symposium outline:

Presentations in this symposium will focus on:

- Providing an overview about psychological problems that healthcare providers face
- Sensitize the delegates to the services that are available to Doctors across the globe especially in developing countries
- Present the findings of focus groups conducted by this action group across different groups of doctors and medical students
- Provide details of the activities that have been undertaken by IMA and the proposed helpline for Doctors
- Invite feedback from the members of IPS about their involvement and ideas towards improving emotional health and wellbeing of the medical fraternity in India.

SYMPOSIUM 55. Sexual Dysfunction with SSRIs and management strategies

*Dr. Ashish Srivastava LF01226***
*Dr. Saumitra Nemlekar LOM/S28/13**
*Dr. Anil Rane** LF*
*Dr. Wenona Fernandes LF 2300112018***
***Department of Psychiatry, Institute of Psychiatry and Human Behavior, Goa & *Department of Psychiatry, North District Hospital, Mapusa*

Sexual dysfunction is a known adverse effect to selective serotonin reuptake inhibitors (SSRIs).. Sexual dysfunction can have significant impact on the person's quality of life, quality of relationships, self-esteem, and recovery. It has also been noted in nearly 40-61% of patients. This may increase the risk for discontinuation and non - adherence to antidepressant pharmacotherapy

Some clinical scenarios that arise out of the same includes managing noncompliance; shifting from the SSRI to other classes and alter the pharmacological profile with add on medications for the problems. Patient education on the sexual side-effect profiles of SSRIs is critical to medication adherence, resolution of depressive symptoms, and improving quality of life. Delaying this discussion may result in confusion and distrust of pharmacotherapies and health care providers, making it more difficult to adjust and recommend medications later on. Given the prevalence of sexual dysfunction in subjects with depression, it is necessary for health care providers to give a full assessment and explanation of potential side effects of antidepressant pharmacotherapy. Use of Scales such as International Index of Erectile Function scale (IIEF) can be used to quantify the dysfunction. Current literature supports use of SSRIs at lowest dose, alternate medications to SSRIs, augmentation with PDE-5 inhibitors

The focus of this session shall be to explore the incidence, pathophysiology, and treatment of antidepressant-associated sexual dysfunction

SYMPOSIUM 56. Child Psychiatry Training

Dr Anupam Bhardwaj
Consultant Child and Adolescent Psychiatrist,
Clinical Lead , CAMHS , Cambridge ,CPFT
Academic Lead for Child Psychiatry Higher Trainees (Health Education England, Eastern Region)
Regional Speciality Representative, Royal College of Psychiatrist .

Dear Sirs

I am proposing to do a presentation on Child Psychiatry Training in the UK and what we can learn in terms of developing training and curriculum to develop the DM Child psychiatry programme in India. I am currently the Lead for organising the teaching programme for higher trainees in Child Psychiatry for the Eastern Region, and have experience of developing and organising a teaching programme and curriculum development in my previous role as Honorary Senior Lecturer at UCL. I am also the Regional Representative for the Royal College of Psychiatrist.

I will give an overview of the curriculum and Child Psychiatry Training in the UK and insights into curriculum development

I was intending to link in with the departments that currently offer DM in Child Psychiatry and see how the two curricula compare and take development points.

Thank you

Anupam Bhardwaj

SYMPOSIUM 57. Management of Violent Psychiatry Patients.

Name of Presenting Author: Dr. Prasanna Prabhakar Khatawkar

Affiliation of Presenting Author: Indian Psychiatric Society
Co-Author Name 1: Dr. Shrikant Vishnu Patankar

Managing violent patients is always a challenging task for all psychiatrists. It is often a difficulty in specialized psychiatry setups and also in general hospital setups. An aggressive patient is a major risk for himself, the care-givers, treating team and the property in which he is treated.

Studies done worldwide have suggested that 20% of patients brought to emergency room of psychiatry hospital and 10% patients brought to general hospital need some sort of method to restrict their physical agitation and violence.

In India too studies have demonstrated the need to use restrictive methods in care of violent patients and these methods can't be completely avoided.

Protocols for management of these violent patients are essential. Also there is a need for more standardized, cost effective, easy to use methods and equipments for this purpose.

The newer legislations make it mandatory to use more humane methods for care of violent patients.

Proper evaluation, talking down, chemical (pharmacological) methods, and physical (mechanical) methods need to be used judiciously as per the necessity of the situation with proper documentation.

Various rating scales and checklist are available for evaluation and for predication of violence. They may help the treating team for proper documentation and justification for use of the method used for purpose of management of violent patients.

Anticipation of a difficult situation, standardized protocol for management, proper documentation, good staff training, realistic communication with caregivers and all activities done as per the directions in the current legislations holds key to effective management of these violent and aggressive patients.

This symposium aims to discuss all these issues in current medical and legal perspectives.

SYMPOSIUM 58. Somatoform Disorder Management: The Challenge

Speakers: Dr Alakananda Dutt, Dr Deepak Godhmode, Ms Dipanwita Sil

Somatoform disorder (SD), characterized by distress and dysfunction due to medically unexplained somatic symptoms has existed from the ancient times and despite the progress of modern medicine, controversies regarding the name, diagnostic criteria, aetiology and treatment continue to prevail. The presenters of the symposium will attempt to highlight the most effective means of assessment and treatment of patients with SD.

The diagnosis of SD lacks consensus across medical specialties as well as within Psychiatry which is reflected in the scarcity of epidemiological data. Disagreement prevails whether functional somatic syndromes like fibromyalgia, Hyperventilation Syndrome, Irritable Bowel Syndrome are "specialty specific" names of SD or different categories of illness. In Psychiatry too, DSM 5 and the upcoming ICD 11 have given different names for SD, viz. Somatic Symptom Disorder (SSD) and Bodily Distress Syndrome (BDS) respectively. Instruments for diagnosis, screening, assessment of severity and associated symptoms will also be enumerated.

Discussion of various aetiological models will be done with respect to their implications in treatment of SD. The effectiveness and efficacy studies on treatment despite their limitations reveal that exercise, psychological treatment, information and structured care may be more effective than medicines in SD.

The management of SD using Cognitive Behaviour therapy techniques based on the Specialised Treatment for Severe Bodily Distress Syndromes (STreSS) manual by Rehfeld et al, 2009 will be illustrated through case vignettes to highlight its applicability in the Indian outpatient setting.

From the above discussion we may conclude that the "mind body dualism" prevalent in medical science needs to end for ensuring better diagnosis and treatment to patients with SD.

SYMPOSIUM 59. SUBJECT: Permission Regarding Retrospective Descriptive Study of Clinical Profile of Patients Referred for Consultation Liaison Psychiatry during a Period from 2008 to 2012 at a tertiary care centre in India

Name of Presenting Author: Dr Rajni Chatterji, Dr Aruna Yadiyal, Dr Radhika Reddy
Affiliation of Presenting Author: IPS Wome Mental Health specialty section

BACKGROUND

Although the rate of psychiatric morbidity is very high in patients attending various other departments of a tertiary care hospital, referral rates are very low in India. Untreated psychiatric illnesses lead to significant morbidity and poor outcome in other physical illnesses too and also to frustration among treating doctors. Consultation liaison psychiatry contributes significantly to adherence to treatment, quality of life and increased patient and provider satisfaction. It also reduces stigma that follows mental illnesses not only in general public but also within the medical professionals. Studying the pattern of psychiatric referrals and clinical profile may pave the way for interventions to improve the current scenario.

STUDY DESIGN

A retrospective, descriptive study of clinical profile of patients referred to consultation liaison Psychiatry.

OBJECTIVES:

1. To study the patterns of referrals from other departments (IPD only) of BMHRC, a tertiary care and super specialty hospital over a period of five years.
2. To study clinical profile of patients referred to consultation liaison psychiatry.

METHODS AND MEASURES

Data for 540 patients were retrieved and analyzed. This data was collected from various departments functioning at BMHRC a tertiary care referral centre, Bhopal from 2008 and 2012. Patients were examined by clinical psychiatrist and psychiatric diagnosis was made according to WHO ICD-10.

RESULTS

Of all referrals from other departments majority of patients were referred from neurosurgery (84%), surgical gastroenterology (82%), pulmonary medicine (66%) and cardiology (60%). Most common psychiatric diagnosis made were anxiety disorder (13.8%), dissociative/conversion disorders (19.2%), Schizophrenia (12.7%) and mood disorders (8.5%).

CONCLUSIONS

There is an urgent need to encourage multi-disciplinary interaction for early identification of psychiatric patients for better outcome not only in psychiatric morbidity but also in other co-morbid physical illnesses. Further studies in this area are needed and should focus on interventions that can improve referral rates through early recognition of the common psychiatric conditions.

SYMPOSIUM 60. Discovering the biology of neuropsychiatric syndromes

Generating potentials from the Accelerator program for discovery in brain disorders using stem cells (ADBS)

Presentation1: *Clinical assessment of the ADBS cohort*: *Modelling etiopathogenesis in multiple affected families.* Dr. Vanteemar S Sreeraj, Clinician Scientist/ Assistant Professor, ADBS, Department of Psychiatry, NIMHANS

Presentation 2: *Neuro-endophenotype assessments*: *Understanding brain and behavior*

Dr. Bharath Holla, Clinician Scientist/ Assistant Professor, ADBS, Department of Psychiatry, NIMHANS

Presentation 3: *Brain in the petridish: What is stem cell offering Psychiatry?*
Dr. Biju Viswanath, Associate Professor, Department of Psychiatry, NIMHANS
Presentation 4: *New generation sequencing and familial mental illness: Approaching phenotypes through genes.*

Prof. Sanjeev Jain, Professor, Department of Psychiatry, NIMHANS
The Accelerator program for discovery in brain disorders using stem cells (ADBS) is a DBT & Pratiksha trust sponsored collaborative project under the joint stewardship of three Bangalore based institutions NIMHANS, NCBS and InSTEM. The primary aim is to accelerate research in discovering the shared and unique biological underpinnings of major psychiatric disorders. In the background of shared genetic, environmental and developmental risks, families with multiple affected members with any of the five major psychiatric disorders (schizophrenia, bipolar disorder, obsessive compulsive disorder, Alzheimer's dementia and substance use disorders) are being assessed. Links between the clinical phenotype, neuroendophenotype and cellular phenotypes are explored from the longitudinal assessments of the patients, their unaffected family members and healthy controls. This symposium will focus on the methodology of the ADBS project with some preliminary findings elucidating the potentials of the project to tap into the clinically driven translational models.
The first presentation will highlight the overall principles on conceptualizing ADBS and describes the conglomerated clinical diversity of the recruited loaded families. The clinical assessments evaluating the heritable traits, pathological states and environmental moderators would be presented. The second presentation explicate the rigorous and sophisticated neuro-endophenotype measures which includes neuropsychological assessment, functional and structural neuroimaging using magnetic resonance imaging (MRI) & near-infrared spectroscopy (NIRS), electrophysiology with electroencephalogram/ event related potential (EEG/ERP) and eye movement tracking. The preliminary findings will throw light on the emerging patterns and potential explorations with imaging-genomics.
The third presentation illuminates the state-of-art technology in stem-cell techniques. It will also describe the encouraging leads obtained utilizing these techniques in this project. The fourth presentation will explicate the utility of familial studies on a platform of advancing genetic technologies like new generation sequencing in elucidating genetic architecture of severe mental illnesses. NGS approaches in a family based study design are useful to identify novel and rare variants in genes for complex disorders like SMI. The talk further provides findings from an independent validation that rare variants in Mendelian genes segregate with severe mental illness like BPAD and SCZ indicating phenotype overlap at the disease level and pleiotropy at the gene level.
This multipronged approach in envisioning the biological basis of neuropsychiatric syndromes would be the way forward for biological psychiatrists.

SYMPOSIUM 61. Symposium Theme: New Frontiers in Depression

Sponsor: Indo-American Psychiatric Association
Chair: A.K. Agrawal, MD
Co-Chair: Rudra Prakash, MD
Treatment Resistant Depression: Madhukar Trivedi, MD. University of Texas, Southwestern Medical Center
TMS: Ananda Pandurangi, MD. Virginia Commonwealth University
Complex comorbidity: Depressive and Substance Use Disorders: Ashwin Patkar, MD. Duke University
Biomarkers and Treatment Selection for Depression - A Precision Medicine Approach: Madhukar Trivedi, MD. University of Texas, Southwestern Medical Center
Panel Discussion/QA

SYMPOSIUM 62. Title: Emergencies in Psychiatry: Challenges, approach and management principles

Presenters:
1. Dr. Praveen SR
MBBS, MD Psychiatry(NIMHANS)
Clinical Post-Doctoral Fellow, Center for Brain Research, Indian Institute of Science.
2. Dr. Vishwas Yadawad
Junior Resident, Department of Psychiatry, National Institute of Mental Health and Neurosciences (NIMHANS).
3. Dr. Sudheendra Huddar
MBBS, MD Psychiatry(NIMHANS)
Senior Resident, Department of Psychiatry, SDM Medical college and hospital.
4. Dr. Abhiram PN
MBBS, MD Psychiatry(NIMHANS)
Clinical Post-Doctoral Fellow, Center for Brain Research, Indian Institute of Science.
Correspondence:
Dr. Abhiram PN
MBBS, MD Psychiatry(NIMHANS)
Clinical Post-Doctoral Fellow,
Center for Brain Research,
SID Complex, Indian Institute of Science
Bangalore – 560012
Phone: + 91 9481338686
Email: abhirampn@iisc.ac.in

Title: Emergencies in Psychiatry: Challenges, approach and management principles
A Psychiatric emergency is an acute alteration in the behavior, mood or thought of the patient which if untreated results in harm to self or others. They constitute around one-third of all the cases that are encountered in the emergency department. This includes an acute presentation of new-onset psychiatric disorders, acute worsening of a long-standing illness or as a masquerade of acute medical/neurological illnesses. Emergency psychiatric services should meet many challenges in providing comprehensive care for such patients which includes immediate evaluation, investigations, timely management, liaison services and prompt referrals. This requires flexibility, practical approach, and broad range of knowledge. In our country with a shortage of human resources and dedicated facilities, rational approach and broad knowledge base are very essential. This symposium aims at discussing the following issues:
1. Epidemiology and various presentations
2. A Broad approach to the cases
3. Initial evaluation and investigations
4. Comprehensive management
5. Special situations (Unknown patient, special population, foreign nationals)
6. Case vignettes and discussion.

Key words: Psychiatric emergencies, Aggression, Suicide, Legal issues.

SYMPOSIUM 63. Polypharmacy in psychiatry: Relevance to clinical practice in India

Authors-Dr Satyakam Mohapatra[1], Dr Seema Parija[1], Dr Anil Kumar BN[2]
Affiliations- 1- Assistant Professor, Department of Psychiatry, SCB Medical, College, Cuttack, Odisha
2. Associate Professor, Department Of Psychiatry, Shridevi Insitute Of Medical Sciences & Research Hospital, Tumkur, Karnataka.
Topic for –Symposium

Keywords- Polypharmacy, Psychiatry, Treatment, India
Polypharmacy is common in clinical practice for many psychiatric

conditions and for many reasons. Polypharmacy is increasingly common and debatable contemporary practice in clinical psychiatry. Concerns with polypharmacy include harmful drug drug interactions, adverse drug reactions, complicated drug regimens leading to noncompliance, economic burden over the patient, lack of evidence-based strategies and therapeutic duplication etc. Polypharmacy in psychiatric treatment is helpful to treat co-morbid illnesses, when monotherapy provides insufficient improvement, to augment the efficacy of the primary treatment, to treat side effects associated with high dose monotherapy etc.

In order to address the issue of polypharmacy in psychiatry, the treating psychiatrists need to keep certain issues in mind including potential adverse effects and drug drug interactions and the specific indications for drugs. Sticking to certain guidelines, polypharmacy may actually give a better symptom relief and disease management with minimal or no side effects. The most important is to understand merits verses demerits of polypharmacy. Certain psychiatric drug combinations are considered irrational and recently banned by government of India.

The goal is not to simply avoid polypharmacy, but to practice rational instead of indiscriminate polypharmacy. There is need for more systematic research and the drawing up of guidelines for polypharmacy practice.

We will discuss in details about reasons for polypharmacy in current psychiatry practice, merits and demits about polypharmacy, how to avoid irrational polypharmacy in practice and about future directions in polypharmacy psychiatry practice.

SYMPOSIUM 64. FALLACIES OF CLASSIFICATION IN CHILD AND ADOLESCENT PSYCHIATRY:

PAST, PRESENT & WAY FORWARD

Savita Malhotra[1], Devashish Konar[2], Nishant Goyal[3], Anweshak Das[4]

Diagnosis is a key part of how we communicate with patients and professionals. Diagnosis also involves understanding of what is wrong and why; and to guide logical decisions about which intervention is better and what lies next! Psychiatric diagnosis has been primarily phenomenological as the underlying pathogenetic causes, mechanisms and processes are still not fully understood. Current nosology is inadequate to capture the breadth and heterogeneity of mental disorders. The major official classification systems in use (DSM-5 and ICD 10) are categorical in nature, even though there has been major debate on whether they should be dimensional.

Of late, researchers have found that combining dimensions and categories is beneficial in understanding psychiatric disorders especially in young population. But a question always creeps up, whether a child with developmental and/or psychosocial issues be given a diagnostic tag or not, is in itself, a huge issue. Professionals need always to think twice whenever they feel tempted to give a diagnosis. Many are of the opinion that making a good formulation which speaks of child's problem and gives a good treatment plan is what you need most in case of children. However, for communication, research, insurance and for use by other agencies we need to classify diseases.

Many changes are witnessed in DSM 5 in the field of child and adolescent psychiatry, like, greater emphasis of dimensional perspective, regrouping of diagnostic rubrics on the basis of said aetiology, being more developmentally oriented, going back from multiaxial to uniaxial approach, redefining diagnostic criteria for several disorders and then creating new diagnosis like disruptive mood dysregulation disorder and hoarding disorder. DSM 5 invited lot of criticism. Critics are sceptical about its over inclusiveness. They feel that many normal children and adolescents may be brought in inadvertently into the ambit of psychiatry and given a diagnosis. Normal childhood may get pathologized as a result. It has to be reiterated that ICD-11 diagnoses in the field of child and adolescent psychiatry must be a step forward, taking lessons from the difficulties in implementing DSM 5 rather than perpetuating the same. Keeping in mind that it is going to be the most widely used system for diagnosis and management worldwide, ICD-11 must aim for a higher standard of scientific quality before changes are determined. ICD-11 should address both cultural and developmental aspects of disorders and focus also upon a manual for primary care.

The term used in classification for diagnosis has to be medically useful and yet not socially stigmatising. While trying to classify conditions we cannot afford to forget that society has great concern in regard to inappropriate labelling of children. At the end, it would be interesting to understand how the three systems' approaches (DSM-5, ICD-11 and RDoC) to key issues of diagnosis correspond or diverge as a result of their different histories, purposes, and areas of implementation. Although the systems have varying degrees of overlap and distinguishing features, they should share the common goal of reducing the burden of suffering due to mental disorder.

Keywords: DSM 5, ICD 11, RDoC, Child and Adolescent Psychiatry

Scheme of Presentation (60 minutes)

1. Classification still has scope for improvement? :Prof. Savita Malhotra (15 minutes)
2. Changes brought in DSM 5: Dr Devashish Konar (15 minutes)
3. Changes expected in ICD 11: Dr Nishant Goyal (15 minutes)
4. Newer Vistas in Psychiatric Classification: Dr. Anweshak Das (15 minutes)

SYMPOSIUM 65. International Young Psychiatrists Award Fellows Track Symposium: Fellowship opportunities, Perspectives sharing, networking, col

Speakers and topics:

Dr Darpan Kaur shall talk about Fellowship opportunities and perspectives of WPA Berlin Fellowship, JSPN Fellowship, WPA RANZCP Fellowship, Adopt a Delegate IACAPAP Fellowship and Ramamoorthy NIMHANS SAARC Fellowship

Dr Adarsh Tripathi shall talk about Networking and Collaboration and International AINSHAMs Fellowship, WASP fellowship and Global Mentor Mentee Network Coordinator

Dr Shubrata Kalmane shall talk about application process and share experience about DJ Cohen fellowship at IACAPAP and WPA RANZCP fellowship

Dr Supriya Agarwal shall speak on Letter of Recommendation and Motivation Letter writing and perspectives about the WPA Berlin Fellowship, AFPA and WASP Fellowships.

Dr Ramdas shall talk about abstract writing and Marce Society Travel Award Fellowship and WPA RANZCP fellowship

Dr Tanay Maiti shall talk on CV Enhancement and WPA Mexico fellowship and Ramamoorthy SAARC NIMHANS Fellowship

Conclusion: The Symposium shall conclude on future opportunities for early career psychiatrists and role of collaboration and networking.

Background:

There are various international fellowships in Psychiatry available from international organizations such as WPA, IACAPAP, WASP, RANZCP, JSPN, MARCE, AFPA, AINSHAMS, Global Mentor-Mentee Network, SAARC Ramamoorthy NIMHANS. There is a perceived need by the international young psychiatrist award fellows from India to conduct a joint symposium for information about fellowship opportunities, perspective sharing, networking and collaboration for skill enhancements of Early Career Psychiatrists.

Aims and objectives:

1. To conduct a symposium to create awareness and share experiences regarding international fellowships in psychiatry for young psychiatrists
2. To provide a platform for mentoring and guidance for encouragement of positive collaboration for academic and research activities for young psychiatrists.

Methodology:

This symposium shall attempt to generate awareness on various fellowships, information and perspective sharing, etc. The symposium shall highlight application process for the fellowships, CV enhancement, writing a motivational letter, writing a research abstract, collaborative work for academics and research.

SYMPOSIUM 66. Negative Symptoms of Schizophrenia: A brief Overview

Name of Presenting Author: Dr Dushad Ram
Affiliation of Presenting Author: JSS Medical College, Mysore.
Co-Author Name 1: Dr Prasenjit Ray
Co-Author Name 2: Dr Rajarshi Chakravarty

Abstract: Negative symptoms of schizophrenia represent an impairment of normal emotional responses, thought processes and behaviors, and include blunting or flattening of affect, alogia/aprosody, avolition/apathy, anhedonia, and asociality. Prevalence has been estimated to be around 25-50%. Negative symptoms respond poorly to treatment and affects the quality of life profoundly.

Dopamine dysregulation, hypofunction of NMDA receptor transmission, alongwith functional alterations in the prefrontal cortex, striato-ventrotegmental loops, and thalamocortical projections have been implicated in genesis of negative symptoms.

Conventional treatments targeting negative symptoms with second generation antipsychotics and antidepressants have not yielded much hope. Novel agents include a number of possible pharmacological approaches like enhancing NMDA receptor function with agents that bind directly to the glycine ligand site or with glycine reuptake inhibitors; influencing the metabotropic glutamate receptor (mGluR2/3) with positive allosteric modulators; and stimulating nicotinic acetylcholine receptors.

Other biological modalities of treatment, like rTMS, have been explored to treat negative symptoms these days. Yet, psychosocial intervention plays a large role in dealing with negative symptoms.

In the current symposium the speakers will start with the construct of negative symptoms and their biological underpinnings, then proceeding to the pharmacological and psychosocial approaches to deal with these.

Keywords: negative symptoms of schizophrenia

SYMPOSIUM 67. Title: Influence of parenting style on behavioural patterns in children.

Presenter
Dr. Sally John, Associate Professor, Psychiatry, J.N.M.C, D.M.I.M.S, Sawangi,
Dr. Samrat Kar, Senior Consultant Psychiatrist, Cuttack, Odisha
Dr. Kanika Kumar, Senior Resident, Psychiatry, JNMC, Sawangi
Dr. K. K. Mishra, Prof and Head Psychiatry MGIMS, Sewagram

Introduction

Parents, as primary caregivers, exert a significant influence on the development of their child's emotional health, personality, social and cognitive development, and academic performance. The influences of parenting style on child outcomes are numerous, but a wealth of literature indicates parenting practices play an important part in the behaviour patterns of children. Through this symposium we want to discuss the types of parenting styles and the influence they have on children. We would like to discuss our experience in this area as part of our short endeavour in school mental health program.

Parenting style and behavioural patterns

There exists an overwhelmingly wide range of parenting behaviors and an equally wide range of child behavioral outcomes. There has been extensive research on the implications parenting styles have on behavioural outcomes in children. Parenting styles are organized into four distinct types: authoritarian, permissive, uninvolved, and authoritative. Authoritative parenting was associated with more desirable child behaviour in previous research.

Conclusion

More extensive research is critical to enhance the current understanding of the role parenting styles play in child behavioural outcomes. An increased understanding of the parenting practices, may enable to address the environmental factors more effectively and guide the development of appropriate prevention and intervention programs to foster adaptive behavioural development in children.

Key Words: School Mental Health, Parenting Styles, authoritative, behavioural problems

SYMPOSIUM 69. Title: Role of Vitamin D supplementation in Depression: Where are we standing?

Presenters: Naresh Nebhinani[*1], Vikas Menon[2], Sujit Kar[3]*

Department of Psychiatry, [1]Associate Professor, All India Institute of Medical Sciences (AIIMS), Jodhpur, Rajasthan, [2]Associate Professor, JIPMER, Pondicherry, [3]Associate Professor, KGMU, Lucknow
Correspondence: drnaresh_pgi@yahoo.com

Depression is a major public health problem and at present, it is the second common cause of disability, and projected to become the leading cause of disease burden and morbidity worldwide by 2030. Vitamin D is involved in numerous brain processes including neuroimmunomodulation, neuroprotection, neuroplasticity, regulation of neurotrophic factors, and making it biologically plausible to be associated with depression.

High prevalence of depression as well as Vitamin D deficiency in general population, wider acceptability, negligible side effects and cost effective approach make Vitamin D supplementation a viable alternative for treating depression. It signifies the importance of assessing vitamin D status and treating hypovitaminosis D for effective management of depression, to avoid delay in response, and incomplete remission. But available data is inconclusive as few studies have supported this association and importance of vitamin D supplementation, while other studies have found no association. Available literature has several lacunae in study design, sample characteristics, issues with supplementation, assessment and interpretation.

This symposium will highlight on following areas:

1. Is there any association between Vitamin D and depression? - Dr Sujit Kar
2. Our clinical and research experience of vitamin D supplementation in depression- Dr Naresh Nebhinani
3. Gaps in available literature and priority areas for future research- Dr Vikas Menon

Keywords: Depression, hypovitaminosis D, time to remission, clinical response, Vitamin D

SYMPOSIUM 70. Title: Psychiatry training in undergraduate medical students: Time to delve , deliberate and deliver.

Presenter's details:

1. Dr Maheshwar Nath Tripathi, Consultant Psychiatrist, Mahadeva Neuropsychiatry Center, Varanasi.
E-mail: dr.maheshwar@gmail.com
2. Dr Subhash Das, Associate Professor, Department of Psychiatry, Government Medical College & Hospital, Chandigarh.
E-mail:asthus10@gmail.com
3. Dr Shyamanta Das, Assistant Professor, Department of Psychiatry, Gauhati Medical College & Hospital, Guwahati.
E-mail:dr.shyamantadas@gmail.com

Abstract: Mental morbidity is increasing in India. The recently concluded National Mental Health Survey 2015-16 mentions that the life-time prevalence of mental illness is 13.67% and the treatment gap is 83% which is very high. This could be due to several factors and to bring down this treatment gap is quite a challenge. This is almost a herculean task considering the fact that the number of mental health professionals (MHP; psychiatrists, clinical psychologists, psychiatric social workers, psychiatric nurses) are very less; World Mental Health Atlas (2014) mentions that India has just about 0.03 psychiatrists per lakh populations and other MHPs are even less. To tackle the mental health problem in India one needs to increase the number of MHPs,

including that of Psychiatrists. In recent times there has been an increase in the number of Post-Graduate Psychiatry seats, however even this is not enough. One way to tackle this problem is to train Medical Officers and other health staffs in PHCs/CHCs through the District Mental Health Program. However this has its limitation like for example the government Medical Officers and health staffs have to perform a myriad of other official duties as a result of which management of mental health problems in the primary care level is likely to take a back seat. In this context, it would be fruitful if Psychiatry is recognized as compulsory subject in the MBBS curriculum so that we have well trained doctors who can recognize and treat at least the common mental disorders. However this is not the case as of now. Moreover there is also a negative attitude towards Psychiatry among medical graduates which somehow acts as a barrier in promoting interest in this subject among them. Thus it goes without saying that there is a need to increase focus on Psychiatry training among the undergraduate students in India.

Through this symposium the speakers want to explore and deliberate on:

1. Psychiatry training in medical students : the developed vs developing nations. (Speaker: Dr Maheshwar Nath Tripathi)
2. Attitude towards Psychiatry among the medical students in India and how to bring about a positive change. (Speaker: Dr Subhash Das)
3. Challenges in making Psychiatry a compulsory subject in exit examination of MBBS.(Dr Shyamanta Das)

SYMPOSIUM 71. SUICIDE IN ADOLESCENTS: CHALLENGES IN ASSESSMENT & MANAGEMENT

Dr. Sonia Parial, Dr. Deepak Ghormode, Dr. Pramod Gupta, Dr. Mithun Dutta

Suicide defined as a fatal, intentional and self-inflected action with the intent to end one's life, is one of the leading causes of death in adolescents worldwide. It is often seen as occurring on a continuum of severity from passive death wishes to suicidal ideas, plans, and attempts; past history of act of self harm being an important risk factor for future suicide attempts. Most of the attempts of self harm in adolescents are not reported hence the risk for future such attempts leading to death remains inadequately estimated and the rates of suicide thus may not be representative for this dreadful but preventable phenomenon. Hence the suicide in adolescents needs special attention in identifying risk factors, evaluation, management and prevention.

The presenters will try to highlight the issues of causative and risk factors in suicide in adolescents. At times it appears a difficult task for mental health professionals dealing with adolescents to inquire about the suicidal ideations in certain group of patients. The assessment of suicidal behaviours will also be discussed with the help of interview based situations in handling such patients' initial resistance and autonomy. Management of suicidal behaviours in adolescents using principles of Dialectical behaviour therapy that includes individual treatment for affect regulation and distress tolerance, behavioral chain analyses to address self-harming behaviors, skill building, family work, and consultation will be discussed in detail with the help of case vignettes, and crisis intervention strategies will also be discussed. The presenters will also try to focus on the important preventive strategies of suicide prevention.

From the above discussion we can highlight important domains and ensure better assessment and management of adolescents with suicidal behaviour.

Keywords: suicide, adolescents

SYMPOSIUM 72. Psychiatric morbidity in migrant population- Experience from South Asia.

Dr Abdul Majid, Dr K K Mishra, Dr Harish Chandra Ghambeera, Dr Nirmal Lamachanne, Dr. Helal u din Ahmed

Chairperson: Brig MVSK Raju

Migration is a universal phenomenon, which existed with the subsistence of the human beings on earth. South Asia is no different in this context as people in this subcontinent also migrate from one place to another for several reasons like improving their living conditions, to escape from debts and poverty, to avoid hostile & stressful environment due to conflicts, which pose threat to their life and property. People move as individuals alone, as families or en masse as communities or sects. Being a social phenomenon, in addition to mortality and fertility, migration is the third basic components of population growth of any particular region. It is estimated that 1% of world's population has been displaced either from their home or from their home country.[1] A report of the United States committee of refugees published in the year 2002 estimates that there are 14.9 million refugees and 22 million internally displaced persons in the world.[2]

Migration is a process which involves certain phases for individual to go through and thus one may experience lack of preparedness, face difficulties in adjusting to the new environment, the complexity of the local system, language difficulties, cultural disparities and adverse experiences would result in distress to the migrating population. This will subsequently lead to negative impact on mental health. The clinical and research literature shows a significant degree of psychological stress among refugees with relatively high levels of physical and psychological dysfunction during the first two years of resettlement. After a period of three years, there was some improvement and increased adaptability, but their serious and pervasive adjustment problems, such as high levels of somatization, Generalised Anxiety Disorder, depression and post traumatic stress disorder (PTSD), continued to affect some sectors of the refugee population. These symptoms have even been noted many years after resettlement.[3,4,5]

This symposium is aimed at understanding the impact on the mental health of the migrants based on the studies conducted around neighbouring countries in south Asia.

SYMPOSIUM 73. Title: Addressing the inequity of Mental Health service delivery using Telepsychiatry

Current status of telepsychiatry –An Overview
Dr. Deepak Kumar
Assoc. Prof & Head, Department of Psychiatry, IHBAS, New Delhi
Delivering mental health care using telepsychiatry: an Indian perspective
Prof. Savita Malhotra
Senior Consultant Psychiatrist, Fortis Hospital, Mohali.
Ex HOD, Department of Psychiatry, PGIMER, Chandigarh.
Delivering mental health care in rural hospitals using telepsychiatry: an Australian perspective
Dr. Rahul Gupta
Clinical Lead, NMHEC-RAP Telepsychiatry Project, HNE LHD, Newcastle, Australia
Conjoint Lecturer, Faculty of Health & Medicine, University of Newcastle, Australia.

This symposium consists of 3 presentations which talks about the overview of Telepsychiatry set-up, different Telepsychiatry models and experience in Indian context and comparison with Australian context. Similarities and differences will be highlighted ending up with some directions for future and learnings for services wishing to set up their own Telepsychiatry Service.

Despite the high prevalence of psychiatric disorders, it is well-known that there is inequity of mental health (MH) care provision as most specialized MH services are concentrated in urban areas. This is true not only in a developing country like India but also in developed countries like Australia, US and Canada where small regional towns are separated by vast distances. Telepsychiatry is increasingly been used to bridge the gap in MH Service delivery. However, the uptake is variable with some centres doing better than others both nationally and overseas.

In keeping with the above objectives, few projects involving development and implementation of telepsychiatry application for providing mental health care in areas where specialist mental health services are not readily available, have been started in India including one at Postgraduate Institute of Medical Education and Research, Chandigarh. Similarly in Australia, telepsychiatry services have been established to provide mental health services to rural and remote towns.

SYMPOSIUM 74. Symposium Title: "CATATONIA" in clinical settings."

Authors:
1. Dr. Vivek Kirpekar, Professor & Head
2. Dr. Sudhir Bhave, Professor
3. Dr. Rahul Tadke, Associate Professor
4. Dr. Sushil Gawande, Associate Professor
5. Dr. Abhijeet Faye, Assistant Professor

Department of Psychiatry, N.K.P. Salve Institute of Medical Sciences and Lata Mangeshkar Hospital, Hingna Road, Nagpur, Maharashtra, 440019.

Title: "CATATONIA" in clinical settings."

Sr. No.	Subtopic	Name of Presenter	Position	IPS Membership No	Contact number & email
1	Introduction & Concept	Dr. Sushil Gawande	Associate Professor	LF-19464	09322013915 sushil.gawande@rediffmail.com
2	Clinical Assessment	Dr. Vivek Kirpekar	Professor & Head	LF-11066	09822200689 vivek.kirpekar@gmail.com
3	Investigations & Neuroimaging	Dr. Abhijeet Faye	Assistant Professor	LF-01295	09765266166 abhijeetfaye12@gmail.com
4	Management	Dr. Rahul Tadke	Associate Professor	LF-18151	09823027370 rahultadke@vsnl.net
5	Dos and don'ts	Dr. Sudhir Bhave	Professor	LF-02046	09822695890 shbhave@gmail.com

Catatonia is a neuropsychiatric syndrome characterized by particular motor and behavioral signs and symptoms which can manifest as a consequence of many neurologic, psychiatric (including schizophrenia), and/or general medical conditions. Catatonic signs may be frequent in patients diagnosed with brain hypoxia and traumatic brain injury. Diagnosis of catatonia is challenging because it requires physical examination and clinical suspicion. Catatonia is known to be often reversible when detected promptly and treated adequately but its under-recognition and subsequent lack of treatment might lead to further medical complications. Thus, awareness about catatonia for all clinicians is relevant to improve patient care.

The present symposium aims at discussing various aspects of catatonia & its present diagnostic status. Detail clinical evaluation and assessment with highlight on the clinical pointers which lead towards required right investigation. At what point or at which clinical suspicion should one think of catatonia? This will also be explained with help of a clinical case vignettes. The findings of ongoing research related to this will be discussed. The role of structural Neuroimagings, functional Neuroimaging and other investigations will be explained in detail. Then the authors will speak on the management & monitoring of the patients in follow up or maintenance phase and share the updates available in the medical literature including recent guidelines. In the end there will be guidance on dos and don'ts related to catatonia in clinical settings.

At the end of the symposium the participating delegates will get idea about various clinically relevant aspects of catatonia, recent updates, the knowledge and expertise one should have about it and its management in acute as well as in maintenance phase in clinical practice.

Subtopics: - 1. Introduction & Concept, 2. Clinical Assessment, 3. Investigations & Neuroimaging, 4. Management and 5. Dos and don'ts.

SYMPOSIUM 75. Symposium: "Do I think about thinking?": Recent trends in metacognition.

Speakers:

1. Dr Shweta Singh: Metacognition: An overview
2. Dr Vibha Sharma: Metacognitive memory in the elderly
3. Dr GS Kaloiya: Metacognition in substance abuse
4. Ms Swati Baghchandani: Metacognitive processes of children
5. Ms Nabanita Barua: Metacognitions of Adolescents with OCD
6. Ms mariyam Miraz: Metacogniin of symtomatic and remitted patients with OCD

Humans possess wonderful cognitive ability to reflect upon one's own thought processes. Simply defined as "thinking about thinking", metacognition refers to beliefs or attitudes that individuals holds about their thoughts and internal states, which also directly influence plans and tendencies for action" (Cartwright-Hatton &Wells,1997; Wells & Matthews, 1996).

The multidimensional nature of the concept has brought about a distinction between three basic aspects of metacognition as metacognitive knowledge, metacognitive experience, and metacognitive regulation.

Flavell (1979) was a pioneer in the area of metacognition and proposed first formal model of metacognition. Wells (1997) expanded it and more recent work is carried out by Rees And Farewell (2013).

Metacognition plays a role across age ranges whether children, adolescents adults or elderly. In fact, awareness of the metacognitive strategies and tasks is thought to appear in childhood and could be related to the onset of the concrete operational stages that appears approximately by age 6 years (Piaget, 1970).

Healthy individuals use metacognitive strategies in day-to-day functions like language, speech, memory and complex process of social interaction, self-regulation, and personality development. Recently, the concept of 'metacognition` has gained increasing interest in the conceptualization and management many clinical conditions like anxiety disorders, depression, OCD, psychosis and PTSD.

Purpose of symposium:

The present symposium throws light upon the concept of meta cognition, its assessment and therapies based on it.

These processes in children adults and elderly are being discussed.

Moreover role of metacognition in various clinical conditions is also presented

Symposium Convener : Dr Shweta Singh, KGMU

SYMPOSIUM 76. Aadhaar, Voter card & government welfare benefits for long stay inpatients in state mental hospitals: NIMHANS experience

Sivakumar T[1], Hareesh A[1], James JW[2]
[1]Psychiatric Rehabilitation Services, NIMHANS, Bengaluru
[2]Department of psychiatric social work, CIP Ranchi

Long stay inpatients in state mental hospitals are a disadvantaged population. There are > 3000 such inpatients in 43 state mental hospitals across the country.

Longstay inpatients get access to shelter, clothing, food & medicines within safe confines of the hospital. Most of them don't get access to various government benefits and schemes for want of an identity and address proof. Recently, the supreme court has upheld the constitutional validity of Aadhaar, recognized it as a tool for inclusion and allowed Aadhaar linkage for availing subsidies and benefits provided by the government. According to Representation of the People Act (1951), Indian citizen can

vote unless the person is declared to be of unsound mind by competent court. According to 'United Nations Convention on Rights of Persons with Disabilities' (UNCRPD), persons with mental illness cannot be denied right and opportunity to vote. A significant proportion of long stay inpatients have the ability to vote.

While longstay inpatients are eligible for disability pension and other benefits, there are several barriers in ensuring access for the same.

At NIMHANS Bangalore, aadhaar cards have been provided for 20 long stay inpatients with mental health issues. Recently, 3 of them also applied for a voter card and exercised their constitutional right to vote.

In this symposium, we shall describe the importance of the exercise, process followed at NIMHANS, challenges faced, practical experience and implications for long stay inpatients in state mental hospitals/ institutions in India.

The speakers and structure of the symposium are as following:

1. Aadhaar card for long stay inpatients: Need, securing official permission & lessons learnt: Dr T Sivakumar (20 minutes)
2. Enrolling long stay inpatients in electoral list & voting day experience: Mr James (20 minutes)
3. Access to Government welfare and disability benefits for long stay inpatients: opportunities & challenges: Dr Hareesh Angothu (20 minutes)

SYMPOSIUM 77. ABSTRACT FOR SYMPOSIUM THE OVERLOOKED NUANCES OF THE PROBLEM OF ADDICTION

Proposed speakers:
DR HIMANSHU SAREEN (M.D.), Associate Professor, Department of Psychiatry, Punjab Institute of Medical Sciences, Jalandhar (Punjab)
DR DEEPALI GUL (M.D.), Assistant Professor, Department of Psychiatry, Punjab Institute of Medical Sciences, Jalandhar (Punjab)
DR GULBAHAR SINGH SIDHU (M.D.), Consultant Psychiatrist, Doaba Hospital, Jalandhar (Punjab).

The problem of addiction confronts the world as never before. Some 31 million persons worldwide have drug use disorders as per the latest figures released by the World Health Organization. Almost 11 million people inject drugs, of which 1.3 million are living with HIV, 5.5 million with hepatitis C, and 1 million with both HIV and hepatitis C. Globally, it is estimated that around 318,000 deaths in 2016 were the direct result of a substance use disorder. Currently, a drugs epidemic is sweeping the state of Punjab with figures suggesting that more than 860,000 young men in the state, between the ages of 15-35, take some form of drugs. These figures are alarming, to say the least.

However, there are many nuances of the problem of substance abuse and dependence which require a closer look. This includes the history of addiction, the current trends, and the changing face of laws relating to substance use disorders, the law and order problems related to substance use among others.

The first speaker would trace the history of addiction worldwide, at the national level and in the state of Punjab.

The second speaker would discuss the laws relating to Substance use disorders, the guidelines given by the Indian Psychiatric Society and those given by the World Psychiatric Association.

The third speaker would deliberate on the law and order problems related to Substance Use Disorders, the risks faced by psychiatrists in the state of Punjab, the fight against drugs being waged by Punjab and the success story of the Punjab Institute of Medical Sciences at Jalandhar (Punjab) leading to the recognition at the national level by the honorable President of India.

SYMPOSIUM 78. Title of Proposed Symposium: PRESCRIPTION DRUG MISUSE

Presenters: Dr. K. Narasimha Reddi, Prof & HOD of Psychiatry, MIMS
Dr. A. Prasanth, Associate Prof. of Psychiatry, MIMS
Dr. K. Ramananda Kishore , Asst. Prof. of Psychiatry, MIMS

Introduction: Prescription drug misuse is defined as any use of a prescription medication that is outside of the manner and intent for which it was prescribed. This includes overuse, use to get high, diversion (sharing or selling to others), having multiple prescribers or non prescribed sources of the medication, and concurrent use of alcohol, illicit substances, or non prescribed controlled medications. Misuse is a necessary but not sufficient criterion for a substance use disorder. Prescription drug use can be diagnosed as a substance use disorder, if misuse of a prescription drug meets DSM-5 criteria, which can be specified as mild, moderate, or severe. In fact, the National Institute on Drug Abuse states that 25% of prescription drug abusers who began abusing earlier than age 13 ended up meeting clinical criteria for addiction and prescription drug abuse treatment. In the US alone, more than 15 million people abuse prescription drugs. According to results from the 2014 National Survey, the rate of current nonmedical use of prescription psychotherapeutic drugs was 2.6% in men and 2.3% in women. Management: Establishing a treatment plan, limiting dose and early refills, performing intermittent pill counts, lowest effective dose, and prescription monitoring programs. Preparing Doctors to Manage Pain & Addiction plays a major role. Drugs of dependence are the ones most likely to be abused. They are intended for short-term use (eg two to four weeks). If commenced following an acute hospital admission, a weaning off protocol should be provided or sought from the hospital staff or treating doctor. If drugs of dependence are required for longer term treatment, be clear of the diagnosis and monitor ongoing risks and benefits. The 4As of monitoring are analgesia, activities of daily living, adverse reactions and aberrant behaviors. Better enforcement of laws in India and implementing comprehensive drug monitoring system can help in preventing the misuse.

SYMPOSIUM 79. Changing trends in Substance use in Kashmir.

Dr Yasir Hassan Rather (Assoc. Professor, Institute of Mental Health and Neurosciences, Kashmir)
Dr Haamid ismail (Senior Resident, IMHANS -K)
Dr Sanjeet kaur (Senior Resident, IMHANS -K)
Dr Ubaid Rasool (Pg Resident, IMHANS –K)

Substance abuse is a broader term which implies the use of harmful or hazardous psychoactive substances including alcohol, inhalants, tobacco and other illicit drugs like opioids, heroin, amphetamines, cannabis and many more.

"Phenomenology of Inhalant Users Seeking Treatment at Drug De-Addiction Centre of Govt. Medical College, Srinagar"

A total of 92 patients were included in our study. Two third of our study group were in the age group 10-19 years. Fevicol SR was the most predominant inhalant used. Phenomenology of inhalant intoxication was categorized in hedonic and aversive group of symptoms. Under hedonic experiences, all subjects reported feeling of relaxation (100%), whereas under aversive experiences nausea was the most common experience. Under the phenomenology of inhalant withdrawal, all subjects (100%) reported high levels of craving.

"First Oral substitution therapy centre in Kashmir"

The data from registers maintained since the inception of the centre (November 2012) was obtained and analysed till date (September 2018). The total number of IDUs registered for OST has increased more than three times from 2012 to 2018. Nearly 91% of the total enrolled regularly attend OST clinic. The centre has a dropout rate of 4-8%. Majority of the IDUs were males falling within 16-47yrs age (mostly below 35yrs).

"Changing pattern of opioid use in kashmir: a review"

Kashmir has seen a rise in the burden of opioid use over the last two

decades. In this context, a review of studies conducted over the past two decades was done which revealed a rise in the use of intravenous opioids.

Key words: Inhalant use disorder, Intravenous drug use, Oral substitution therapy

SYMPOSIUM 80. Symposium: Perinatal Mental Health: Developing integrative care model of Perinatal Psychiatry in India.

The symposium has four components

1. Perinatal Mental Health: beyond postpartum psychosis (Dr. Shubhagi Dare)
2. Perinatal Mental Health: current challenges in implementation of mental health services during perinatal period (Dr. Sonia Parial)
3. Perinatal Mental Health: Implementation in the state of Kerala: Lessons for other state to learn (Dr. Anil Kumar T V)
4. Perinatal Mental Health: How do we train fellow professionals (Dr. Kishor M).
5. Perinatal Mental Health: Integrating Perinatal Mental Health Units at General Hospital set-up (Dr. Sundarnag Ganjekar).

The perinatal period is a time of major transition in woman's life and is associated with a significantly increased risk for onset and / or relapse of mental health conditions. Postpartum psychiatric disorders range from rare postpartum psychosis (prevalence of 0.1 to 0.2%) to more common postpartum depression and anxiety. In India depression during pregnancy affects 1 in 5 mothers and if undiagnosed carry risk of postnatal depression and adverse maternal and fetal outcomes.

The first presentation from Dr. Shubhangi Dare focuses on common mental disorders during pregnancy and postpartum. It has been proved beyond doubt that mental health problems during perinatal period has deleterious effect on the mother as well as the infant. Worldwide women get in touch with the health professionals during her pregnancy and postpartum and it is ideal time for assessment of mental health.

The second presentation by Dr. Sonia Parial focuses on the current challenges in the implementation of mental health services during perinatal period. Being working closely with District Mental Health Program.

The third presentation by Dr. Anil Kumar T V focuses on the lessons for other part of India to implement Perinatal Mental Health through his experience by implementing it in to the state of Kerala.

The fourth presentation by Dr. Kishor M focuses on training the professionals especially obstetrician. He has been instrumental in bringing Manual on Mental Health training for obstetrician.

Finally Dr. Sundarnag Ganjekar will present on integrating perinatal mental health units in resource scarce general hospitals in India a way forward for integrating Maternal Mental Health in to Reproductive and Child Health Program.

SYMPOSIUM 81. Title- Innovative interventions in Consultation Liaison Psychiatry

Name of Presenting Author: DR.Divya Hegde
Affiliation of Presenting Author: Assistant professor
Co-Author Name 1: Dr Priya Sreedaran
Co-Author Name 2: Dr. Dhanya Raveendranan
Co-Author Name 3: Dr Salazar Luke
Co-Author Name 5: Dr M.V. Ashok
Co-Author Name 4: Dr Johnson Pradeep

Background

A Consultation-Liaison Psychiatrist is the ambassador for mental health in the general hospital. Lifetime prevalence of mental disorders in patients with chronic medical conditions is 42%. However, the current mental health gap in India prevents a large number of medically ill patients from accessing essential psychiatric care. Ignoring the mental health issues of medically ill patients prolongs their suffering, reduces their quality of life and affects outcome of primary medical illness. In this background we present a symposium describing innovative intervention models to deliver mental health services in liaison psychiatry.

Materials and Methods

We describe models of care using trained nurses to identify mental health issues as well as provide psychosocial interventions in a tertiary general hospital setting. In Gastro-enterology , patients with alcohol liver disease were given brief interventions to improve their abstinence. In endocrinology, nephrology and immunology; a trained nurse actively identifies patients with mental health issues and ensures their treatment. As part of suicide prevention in high risk populations, a non specialist nurse assertively identifies patients with suicide attempts treated for resulting medical complications and delivers mental health care to them.

Results

These strategies have led to an increase in patients receiving mental health care. They have also improved follow up rates and relationship with other consultants.

Conclusion

These models allow for better collaboration between psychiatrists and other specialists and thus benefit patients with medical and mental health issues. These models can aid in bridging mental health gap in India.

SYMPOSIUM 82. SCHIZO-OBSESSIVE DISORDER: AN UPDATE

Name of Presenting Author: Dr. Seema Parija
Affiliation of Presenting Author: Assistant Professor, Psychiatry, Mental Health Institute, SCB Medical College, Cuttack
Co-Author Name 1: Dr. Satyakam Mohapatra
Co-Author Name 2: Dr. Anil Kumar BN

Obsessive-compulsive (OC) features are common in patients with schizophrenia. The term schizo-obsessive disorder has been proposed to delineate the patients with schizophrenia who also have obsessive-compulsive symptoms (OCS) and/or obsessive-compulsive disorder (OCD) in addition to positive, negative and disorganized psychotic symptoms.

Three different groups of schizo-obsessive disorder patients have been described, those diagnosed with OCD before the development of schizophrenia, those who begin to exhibit OCS around the onset of schizophrenia or at any time during the course of the illness, and finally, those who show transient OCS at different stages of their disease, or after the use of antipsychotic medication. Identification of schizo-obsessive patients is complex due to difficulties in recognizing obsessions and compulsions as OCS may resemble psychotic symptoms. It can be hard to distinguish obsessions with poor insight from delusions, compulsions from mannerisms, and obsessional slowness from thought blocking. These issues will be clarified in our discussion.

Current genetic, neurobiological, clinical-descriptive and pharmacological data about OCS and/or OCD in schizophrenia hypothesize that schizophrenia combined with OCD is more than a mere comorbidity. A dimensional approach, based on the identification of a dysfunctional area, should replace categorical approach. A dimensional definition of schizo-obsessive disorder has a prognostic value in terms of severity of psychotic symptoms and it captures the complexity of both schizophrenia and OCD.

We will discuss the various dimensions in the schizo-obsessive spectrum, such as insight, compulsivity and disorganization. We will discuss in details about the epidemiology, neurobiology and clinical features of schizo-obsessive disorder. These patients have been shown to have poorer social functioning and quality of life than those with schizophrenia. Evidence based psychopharmacological and psychological treatment and future direction to improve the prognosis of these patients will be discussed in detail.

Keywords: schizo-obsessive disorder, OCD, schizophrenia

SYMPOSIUM 83. Assessment and Management of School Refusal Behaviour among Children and Adolescents

Smitha CA[1],Aswathy G[2], Indu Nair[3]
[1]Govt. Medical College, Kozhikode.drsmithaca@gmail.com
[2]Govt. Medical College, Kozhikode. aswathythiruvanchan@gmail.com
[3]Govt.Mental Health Centre, Perurkada, Thiruvananthapuram, Kerala. indunairv2008@gmail.com

Keywords: School refusal, Parenting, Child and adolescent, Management.

Background: School refusal is a very common cause of referral to child guidance clinics and has a 5% prevalence among school going children. School refusal is associated with a number of externalising and internalising symptoms and an array of mental health disorders accompany this. Presentation and underlying factors vary with the age, temperament and the environmental factors of the child.

Objective: To discuss the extent and significance of the problem, contributory environmental factors, accompanying mental health disorders and the management of the school refusal behaviour.

Overview: We will discuss the relevance of the of identifying the problem, various patterns of presentation, precipitating and perpetuating factors, associated psychiatric disorders, assessment and management of school refusal.

Speakers and Subtopics:

Aswathy G will discuss the prevalence and various types of presentations, role of the child's temperament and different parenting styles. How the parenting styles and familial relationship subtypes are influential in the school refusal behaviour will be detailed. An algorithm for the initial assessment of the school refusal behaviour will also be discussed..

Smitha CA will review the school refusal behaviour among children, detail the age specific assessment methods, discuss the child psychiatric disorders associated with school refusal and various approaches in the management. Role of the teachers and parents in the management would be discussing in detail.

Indu Nair will address the school refusal behaviour among adolescents and approaches in the management of contributory and underlying problems. Scenarios relevant to adolescent age groups including body image, gender identity and relationship issues will also be discussed in the context of school refusal.

SYMPOSIUM 84. BORDERLINE INTELLECTUAL FUNCTIONING: WHAT WE KNOW BUT DON'T SEE!!

Dr. Priti Arun, Professor of Psychiatry, Department of Psychiatry, Government Medical College and Hospital, Chandigarh.
Dr. Rachna Bhargava, Professor of Clinical Psychology, Department of Psychiatry, All India Institute of Medical Sciences, Delhi.
Dr. Nidhi Chauhan, Assistant Professor (Psychiatry), Department of Psychiatry, Government Medical College and Hospital, Chandigarh.

Borderline intellectual functioning (BIF) is a difficult concept, getting recognised in DSM- I as 'mental deficiency' to a V- code in DSM- 5. It mostly refers to the group of individuals having IQ between 71 and 85 with varying levels of cognitive deficits. There is enormous literature highlighting the difficulties faced by individuals with BIF in all areas of ordinary life- from problems in adaptive functioning to increased risk of physical problems, difficulties in daily living, no access to specialised services, thus, affecting their quality of life and employability. Despite great difficulties in their daily lives, this group of individuals go unnoticed by the society at large and by policy makers in particular. Caring for individuals with BIF requires inter-sectoral coordination amongst health, education, social, employment and legal services. However, there also remains a fact that not all individuals with BIF have limitations in activities and participation restrictions. Thus, one plan for all will not meet the needs of all individuals in this group and new innovative ways needs to be explored for this group of people.

1) Concept and evolution of 'Borderline intellectual functioning'.
2) Psychosocial impact of Borderline intellectual functioning on individuals and their families.
3) What more needs to be done for individuals with Borderline intellectual functioning and how?

Symposium -Under the aegis of IPS Geriatric Psychiatry Specialty Section and IAGMH

SYMPOSIUM 85. Positivity, resilience and spirituality-the core themes for healthy ageing

S.C. Tiwari, G. Prasad Rao, Dr. Avdesh Sharma, Nisha Mani Pandey

Health is considered as the ability to adapt and manage oneself in the face of social, mental and physical challenges of life; and this definition emphasises on the potential of the individual which is either to be or to become healthy, even in adversity and/or diseased status. Moreover, a healthy person remains capable of using his/her potential for personal growth and development throughout their life and lead a purposeful life. A recent review reveals 3 dimensions of healthy aging i) biological– which emphasized the need to adopt habits and behaviours inherent to lifestyle to age in a healthy way; ii) psychological-in which optimism and happiness were considered as important factors and iii) social-which revealed social relationships with family, friends and partners as the core features. It can be thus put forward that positive outlook in various domains of life with resilient worldview and spiritual characteristics (developing self by understanding one's own abilities in terms of self-actualization and self- realization) contributes to a healthy life. If these characteristics could be introduced to aging individuals, achieving healthy aging would not be a dream. In view of this, present symposium has been planned and developed.

In this symposium the presenters will be elucidating on i) concepts and scientific understanding of positivity, resilience and spirituality; ii) resilience as a protective factor for healthy aging; iii) Spirituality-the inner strength to promote healthy aging and iv) promoting healthy aging through a resilient world-view.

SYMPOSIUM 86. NEURODEVELOPMENTAL DISORDER: THE CURRENT DEBATE

Name of Presenting Author: Prof (Dr.) Pradeep Kumar Saha
Affiliation of Presenting Author: Professor & Director, Institute of Psychiatry, A centre of excellence, Kolkata
Co-Author Name 1: Dr.Partha Sarathi Kundu ; Asst. Professor
Co-Author Name 2: Dr. Manish Kumar ; Asst. Professor
Co-Author Name 3: Dr. Anirban Roy ; Associate Professor

Neuro developmental disorder is a new concept in DSM V. It includes disorders that are evident from childhood, slowly improves with age, but never gets alleviated. It is more of a trait than a state. It includes ASD,IDD, ADHD, SLD, motor coordination disorder etc. Rehabilitation is the key to intervention. Till date there is no medication to address the core disorder. Such disorders are frequently associated with behavioural or achievement oriented manifestations. Those manifestations can be controlled with a few selected psychotropics. Worldwide it is a recognised entity under behavioural disorder group. But recently, Govt. of India, more precisely the Ministry of Social Justice and Empowerment for the purpose of certification of such behavioural disorders has included paediatricians as the diagnosing and certifying authority. And surprisingly, for certifying more precise subgroup of S.L.D., under this entity, they have removed psychiatrists from the certifying board. Truly speaking psychiatrists are the only

professionals having hands on experience and exposure in diagnosing and managing such conditions. Some state governments going a step further have removed psychiatrists from the certifying board of entire neuro developmental diasorders. There is a need for awareness of this debate amongst fraternity need for amendment of this faulty amendment inviting debate and unified dissent on this issue.

Key words: Neuro developmental disorder, ASD, IDD, ADHD, SLD, motor coordination disorder, disability certification

SYMPOSIUM 87. Title: Screen addiction among young children and adolescents

Authors
1. Dr.Surjit Prasad(Psychiatry)
Consutant Psychiatrist
Ranchi institute of Neuropsychiatry & Allied Sciences
2. Dr.Bhoomika Sachchacher(Clinical psychology)
Assistant Professor ,
Amity University, Ranchi
3. Dr.Preeti Gupta(Clinical psychology)
Assistant professor
Dept. of Clinical psychology
Central Institute of Psychiatry,Ranchi.
4. Dr.Neha Sayeed(Clinical psychology)*
Associate professor
Dept. of Clinical psychology
Central Institute of Psychiatry,Ranchi.
Corresponding Author: Dr.Neha Sayeed
Associate professor
Dept. of Clinical psychology
Central Institute of Psychiatry
Email:neha.s.cip@gmail.com;9709228860

Screen addiction: A new entity- Dr.Surjit Prasad

Screen addiction doesn't appear in the latest classification system, Diagnostic and Statistical Manual, the DSM-V, published in 2013. However, a closest term called "Internet Gaming Disorder" is listed as a condition demanding further study though not as an official diagnosis. Pointers to screen addiction as a health concern will be discussed in details. however, some have been identified as failure to regulate the initiate and inhibit behavior (failure to put electronic device away on first request), sleep disturbances due to activation of physiological adrenal excitement, not controlling the electronic device use even after experiencing a negative consequence and irritability.

Psychosocial correlates and consequences of screen addiction- Dr.Bhoomika Sachchacher

Parenting styles, temperament and surroundings have immense roles in the development of dependence on screen. Engaging with peers on social networks such as Facebook, Instagram, or Snapchat, or playing immersive roles in games with friends and people from around the world, are ways in which youth may feel socially connected. In an environment where people are frequently using and checking devices, research has pointed to various health problems and conflicts that arise within families when people are distracted by media and technology use as well as to major public health concerns. This will be discussed further in detail.

Preventive and treatment approach- Dr.Preeti Gupta

To identify the psychosocial and medical issues behind the problem behaviour should be the first step to look forward for the management and treatment. There is a need to recognize the importance of face-to-face communication in addition to online communication and supporting rich social relationships. Additionally, parents and other caring adults can help youth to manage media. A balanced approach is required at an individual level as well as at public level.

Problem in seeking treatment- Dr.Neha Sayeed

To identify the symptoms and coming up for treatment is a difficulty for the people who are not aware about mental illness related to screen addiction. There are various barriers to treatment and how to manage this issue will be the focus of discussion.

SYMPOSIUM 88. Title: Parenting: Can it be a Cornerstone of Preventive Psychiatry?

Parenting: Neurobiological Correlates: Dr Sumit Rana, Assistant Professor, Department of Psychiatry, Lady Hardinge Medical College, New Delhi.

Parenting: Psychological Ramifications: Dr GS Kaloiya, Assoc. Prof. of Clinical Psychology, National Drug Dependence Treatment Centre (NDDTC), All India Institute of Medical Sciences (AIIMS), New Delhi.

Parenting: Social Ramifications: Dr. Naveen Grover, Asst. Prof of Clinical Psychology, IHBAS, Delhi.

Estimated prevalence of psychiatric disorders in India is 65/1000 population i.e. 8.6 Crore Person with Mental Illness! Of this, around 4 Crore are suffering from Common Mental Disorders and around 1 crore are suffering from substance dependence. With increasing population and dramatic changes in the society in recent times, the number of PMI is expected to rise dramatically. It is compounded by the fact that we have just 0.2 psychiatrists per lakh population and those too are concentrated in the Cities. The shortage of other mental health professionals is even more acute with only minority of Major Institutes having Clinical Psychologists and Psychiatric Social Workers. The demand supply gap is almost impossible to fill. Further, prognosis of Mental Illnesses, though improving, is still not satisfactory. Preventive Psychiatry has the potential of dramatically reducing the prevalence.

Parenting is the process of assisting and encouraging the physical, emotional, social and mental growth of a child from birth to adulthood. Parenting is an intricate process that involves much more than a mother or father providing food, safety and support to the child. It is an intricate activity, encompassing various explicit attitudes and behaviors, which work independently and collectively in child outcomes (Darling & Steinberg, 1993; Darling, 1999).

Parenting is a universal phenomenon. Barring few unlucky ones, everyone receives parenting from their parents. Can we use this in preventing mental illnesses? Does it really have a potential of becoming the cornerstone of Preventive Psychiatry?

To deliberate on this, we have planned a symposium titled "Parenting: Can it be a Cornerstone of Preventive Psychiatry?"

SYMPOSIUM 89. Mental Health Care Services for the Marginalized Population: Reaching the 'Unreached'

Shivangi Mehta, Assistant Professor
NidhiMalhotra, Assistant Professor
Aarzoo Gupta, Assistant Professor of Clinical Psychology
Department of Psychiatry,
Government Medical College & Hospital
Chandigarh-160030

The Department of Psychiatry, Government Medical College & Hospital-32, Chandigarh has been working diligently in the field of Community Mental Health for more than twenty years; with one of the aims of catering to the Mental Health needs of marginalized and unreached population including homeless women and children, abandoned elderly, children in conflict with law, children/adults withintellectual disability etc. During the process of developing services for the aforementioned population; we have been tirelessly liaising with multiple stake-holders like Department of Social welfare, Police personnel, Judiciary etc. and have successfully delivered Mental Health Services to various rehabilitation homes/ residential facilities covered under the UT of Chandigarh namely Ashreya, Juvenile Justice Home, NariNiketan,Snehalya, Samarth and Senior Citizen home. The presenters will highlight theservices being

delivered to children and adults with intellectual disability, homeless/ abandoned women and children in conflict with law in Ashreya, NariNiketan and Juvenile Justice Home respectively.

Topics:

1. Mental Health Services for homeless/abandoned women residing in NariNiketan(NidhiMalhotra)
2. Mental Health Services for children in Conflict with Law(Aarzoo Gupta)
3. Mental Health Services for children and adults with Intellectual Disability in a residential setting(Shivangi Mehta)

SYMPOSIUM 90. THE ROAD LESS TRAVELLED: LIAISON IN CONSULTATION PSYCHIATRY

Topics

1. Psychiatric Consultation Notes – A Tower of Babel for Non – Psychiatrists: Dr Varghese Punnoose, Professor and Head, Dept of Psychiatry -15 minutes
2. "Could you please take over this patient?" – Liaison Psychiatry in Acute Care settings- Dr. Sandeep Alex /Dr Sebind Kumar, Assistant Professor–20 minutes
3. The somatising patient with functional overlay- The symptoms in search of explanations: Dr. Varun Rajan, Senior Resident -20 minutes

"Dignity, Understanding, Communication- Together We Work(DUCT)"-A Model of CLP in General Hospital Settings: Dr Varghese Punnoose-15 minutes

C-L Psychiatry has contributed immensely to the main streaming of Psychiatry and brought it closer to its sister specialties in modern medicine. In India, Psychiatry residency training is predominantly done in General Hospital setting, which probably explain why the current generation of residents are unaware of the historical moorings and birth pangs of this subspecialty.

This symposium aims to share our experience at the Department of Psychiatry, Govt TD Medical College, Alappuzha a tertiary care teaching hospital in an urban setting in Kerala. We will delve into patient profile, psychiatric diagnosis, comorbidities, general medical condition, expectations of patients and referring department, especially the bidirectional communication and continuation of liaison after the initial consultation.

The C-L services sought by the department of Neurology, General Medicine, Pediatrics and Nephrology will be analyzed and presented with suggestions for improvement in C-L service delivery, rooted in the newer developments in the field of Psychosomatic Medicine.

SYMPOSIUM 91. Ketamine use in treatment resistant depression

Pratap Sharan,[1] Koushik Sinha Deb[2], Gagan Hans[2]

[1]Professor, [2]Assistant Professor, Department of Psychiatry, All India Institute of Medical Sciences, New Delhi

Presentations:

Ethical considerations and development of policy framework: Pratap Sharan

Ketamine promise, mechanisms of action and clinical effects: Koushik Sinha Deb

Evidence base of Ketamine use in treatment resistant depression: Gagan Hans

It is widely accepted that at least 30% of all depressed patients do not respond adequately to several antidepressant drugs. Treatment-resistant depression or treatment-refractory depression is very challenging to be diagnosed in routine clinical practice. It may also have a broad definition: it can usually be presented as a failure to respond to one antidepressant or two trials with antidepressants from different pharmacological classes in adequate courses, to two antidepressants in combination, or to electroconvulsive therapy (ECT) or can also be presented when there is intolerance to treatment or there is a relapse after initial response to treatment. Ketamine infusion is known to be effective treatment in treatment resistant depressed patients in sub-anesthetic dose as shown by multiple studies. Ketamine seems to have a high potential in the treatment of refractory depression. Repeated ketamine infusion can be one of new alternative treatment to electroconvulsive therapy for treatment resistant depression and patient with suicidal ideation.

Ethical considerations and development of policy framework of Ketamine use

Reports of ketamine's unique antidepressant effects, combined with frequent media coverage promulgating the potential benefits of ketamine treatment, have generated substantial interest and optimism among patients, families, patient advocacy groups, and clinicians alike. This interest has led to a rapidly escalating demand for clinical access to ketamine treatment and an increasing number of clinicians willing to provide it. The impressive antidepressant effects of ketamine have spurred a great deal of research interest, with growing clinical use of ketamine for the treatment of depression. At present, clinical use is off label; no pharmaceutical company yet has a marketing authorisation. Additionally, there is considerable recreational use of ketamine in some countries which has led to repeated calls for tighter regulatory controls on ketamine. The key information that is needed to enhance the ethical use of ketamine for a selective disorders is structured, long-term, naturalistic data on the safety of repeated dosing, including incidence of misuse.

Ketamine promise: mechanism of action and clinical effects

While most investigations have revealed that mono-aminergic system dysregulation contributes to depression the recent studies have shown an involvement of the glutamatergic system. Consequently, it has been suggested that by directly targeting the NMDA receptor, it might be possible to modulate glutamate and GABA systems, thus creating a target for novel antidepressants. The exact mechanisms through which NMDA receptor antagonists exert their rapid antidepressant effects are not clear, however there is some speculation that directly targeting the NMDA receptors might eliminate long neurotrophic signaling cascades, which could be the reason for the delayed effects of traditional antidepressants. Ketamine, a potent selective N-methyl-d-aspartate (NMDA) receptor antagonist has emerged as a promising agent in the treatment of patients with depression. The blockade of N-methyl-D-aspartate receptors (NMDA) by ketamine may contribute to anti-depressive effects by different mechanisms. Briefly, ketamine might rapidly increase synaptic glutamate release, which may contribute to rapidly increase synaptic connections in the prefrontal cortex. Furthermore, by blocking extra-synaptic NMDA receptors, ketamine could enable the regrowth of dendritic spines by relieving inhibition of BDNF synthesis.

Evidence base of Ketamine use in treatment resistant depression

The results of various studies which have tried to evaluate the results of Ketamine in treatment resistant depression have been promising although there have been some limitations of these studies like small sample size and variable doses of ketamine used. Zarate et al in 2006 found 71% response rate and 29% remission rate in 18 patients, treated with 2 doses of ketamine (0.5mg/kg). An another study conducted by Paulo R. Shiroma et al in 2014 found response rate and remission rate slightly higher at 92% and 67% respectively . Segmiller et al in 2013 found 50% response rate and 33.3% remission rate in a sample of six patients. Similar finding were obtained by Rasmussen et al. in 2013 and Murrough et al. in 2013 who had shown a response rate of 80% and 70.8 % respectively. The results although are promising but need to be interpreted cautiously as these are just preliminary findings and a lot of work needs to be undertaken before establishing ketamine as standard treatment for resistant depression.

SYMPOSIUM 92. Assessment and Management of Aggression in Inpatient Psychiatric Settings: Learnings from the GMCH Experience

Outline of the symposium:

Introduction, concepts and Risk factors related to aggression and

violence: Dr. Nitasha Sharma
Risk Assessmnet and Risk Formulation of violence and aggression: Mrs Virtu Chngtham
Risk Management (with special focus on Rapid tranquilization): Dr Nitin Gupta
Guideline development for inpatient violence and its implentation: Dr B.S. Chavan

In general, events of violence & aggression are common and one of the most challenging phenomena encountered in acute inpatient settings. With estimated rates between 8% -44%, aggression and violence has various negative trajectories; being associated with injuries, fear, low staff morale, loss of staff working days, and negative therapeutic climate coloured by distrust, anger and power struggles. Hence, an evidence-based framework is essential for the same. In this context, the Department of Psychiatry, GMCH-32, Chandigarh has been carrying out work for the last 5 years now.
Aim: The aim of the symposium is to discuss the theoretical framework and the pragmatic aspects along with guideline development for managing risk arising out of inpatient violence.

SYMPOSIUM *93. Attempted Suicides and Suicide Prevention: Indian Perspective*

VK Radhakrishnan[1],MD;Hemendra Singh[2], MD; Sathesh Vadasseril[3], MD; Mona Nongmeikapam[4], MD
1.C. N. K. Hospital, Changanacherry, Kerala, India
2.Dept. of Psychiatry, Ramaiah Medical College & Hospitals
3.Department of Psychiatry, Kottyam Medical College, Kerala, India
4.Department of Psychiatry, Sri Devraj Urs Medical College, Kolar, Karnataka

The major risk factor for suicide is mostly an untreated and frequently undiagnosed mental disorder. Dr Radhakrishnan will be talking about hidden epidemiology of suicide in India. More than one lakh persons (1,33,623) in the country lost their lives by committing suicide during the year 2016. Hence there is an urgent need in suicide prevention strategies. Prevention strategies can be looked at an individual,community and universal levels.India is still deficient in having an effective relevant and appropriate national suicide prevention plan. Dr. Hemendra Singh will discuss about the clinical correlates of suicide attempt in psychiatric patients. It throws light on factors associated with high suicide risk in psychiatric patients and the early detection of these factors can prevent suicide. Dr. Sathesh Vadasseril discusses the gender – based comparison of psycho-socio- demographic and clinical profile of 1300 suicide attempters. The study helps in the selection of appropriate suicide preventive strategies. As history of suicide attempt is a risk factor for future suicide, it is high time that the various factors associated with suicide attempt are to be identified to prevent future suicide and also to rehabilitate them psychosocially. And lastly, Dr. Mona Nongmeikapam will present the huge lacunae in the parental awareness and discuss the need for a change of parental attitudes, highlighting the findings of a study conducted on adolescent self-harm attempters and their families. Early identification of such behaviour or impulses is imperative for the prevention of this leading, largely preventable cause of mortality in this age group.
Key Words: Suicide attempts, Psychiatric patients, Suicide Prevention

SYMPOSIUM 94. Missing incidents in Dementia : Antecedents and Neuroanatomical underpinnings

Name of Presenting Author: Shankar Kumar
Affiliation of Presenting Author: Assistant Professor Psychiatry
Co-Author Name 1: Yamini Devendran, Senior Resident, Psychiatry

Background: Behavioral symptoms of dementia in the form of *getting lost behaviour (GLB)* present the greatest challenge for informal caregivers. A missing incident in a *person with dementia (PWD)* is defined as an instance in which the PWD's whereabouts are unknown to the caregiver and the individual is not in an expected location. These incidents are dissimilar to the previously accepted definition of "wandering" in dementia. GLB in the elderly is believed to involve poor top-down modulation of visuospatial processing, by impaired executive functions. Spatial Navigation is distinctly impaired across different dementias.
Methods: A retrospective design was used to trace cases of missing elderly (>65 years) persons from newspaper reports and police records of the past 1 year in Bangalore urban. Contextual and situational antecedents and outcomes were elicited in all cases. In those who were eventually found, neurocognitive antecedents were assessed by history and using neuropsychological testing at the hospital.
Results: The primary contextual antecedent to a missing incident was becoming lost while conducting a normal and permitted activity alone. The most frequent situational antecedent limited supervision and a lapse with the expectation that the PWD would remain in a safe location. The key characteristics of a missing incident were: unpredictable, non-repetitive, temporally appropriate but spatially-disordered, and while using multiple means of movement (walking, car, public transportation). In terms of Spatial Navigation, DLB patients were the worst navigators on ego and mixed ego-allocentric task, while FTLD are least impaired. Place learning (*for way finding*) and response learning (*for route learning*) strategies in preclinical and early-stage symptomatic AD were deficient.
Conclusion: There is a conceptual difference between wandering and missing. The anatomical substrates of GLB may be disease specific. The therapeutic practices must focus to target both working memory and visuospatial deficits.

SYMPOSIUM 95. LATE LIFE DEPRESSION: CURRENT CONCEPTS AND CHANGING PARADIGMS

Speakers:
1. Dr Somsubhro Chattopadhyay ---------- Introduction, Overview and burden of late life depression
assistant Professor
Department of Psychiatry
College of Medicine & Sagore Dutta hospital,Kolkata

2. Dr Rajarashi Guha Thakurta --------- Clinical correlates, neurobiology and assessment
Faculty, Department of Psychiatry
MIDNAPORE MEDICAL COLLEGE ,MIDNAPORE,W.B
3. Dr Sharmila Sarkar ---------- Management and future directions
ASSOCIATE PROFESSOR-PSYCHIATRY
CNMCH, Kolkata

LATE LIFE DEPRESSION: CURRENT CONCEPTS AND CHALLENGES
INTRODUCTION, OVERVIEW AND BURDEN OF LATE LIFE DEPRESSION
:- Change in the demographic trend has increased the geriatric population in significant numbers in our country and will increase more in the coming days. Changing family types, busy life schedules, economic redistribution, industrialization etc has rendered its effects on the lives of elderly people. Depression in this age group has increased in substantial amount. Chronic illnesses trigger or predispose late life depression. Despite availability of efficacious treatment options depression in late life remains significantly under diagnosed and untreated. Complexities of symptomatology's, overlying comorbidities, lack of social support and stigma to illness have been recognized as

factors for failure of treatment. The past decade has witnessed an acceleration of the understanding often neurobiology of late-life mood disorders. According to World Health Organization, depression in late life is among the top 10 diseases which increase disabilities in activities of daily life impacting health cost and nations economy.

CLINICAL CORRELATES, NEUROBIOLOGY AND ASSESSMENT: Geriatric depression typically occurs in the context of medical disorders. Geriatric depression is viewed as a heterogeneous entity. The similarity of depressive manifestations with symptoms and signs of dementing disorders, for example, loss of interest, decreased energy, agitation or psychomotor retardation, poor concentration, and apathy often poses diagnostic problems. Patients with psychotic depression have delusions, whereas hallucinations are less frequent. Older adults are at significant risk of death by suicide relative to younger adults. Older adults are at significant risk of death by suicide relative to younger adults. The inflammation hypothesis postulates that aging related immune processes promote changes in the emotional and cognitive neural networks predisposing to geriatric depression and/or triggering metabolic brain changes mediating the depressive syndrome in late life. An early hypothesis of late-life depression postulated that major depression with the onset of first episode in late life includes a large subgroup of patients in whom neurological brain abnormalities contribute to the development of the depressive syndrome

MANAGEMENT AND FUTURE DIRECTIONS:- The objectives of management of late life depression in are remission of symptoms, decrease the risk of relapse , limitation of disabilities ,improvement of functional status and coping skills. Psychotherapy and pharmacotherapy are effective in management. Identifying the risk factors, treating comorbidities, minimizing the side effects of medication, involving the family members in treatment, psycho education to the family are important in successful treatment. Appropriate rehabilitative measures improve long term outcomes. Current recommendation is combination of both psychotherapy and pharmacotherapy. CBT, Problem solving therapy, problem adaptation therapy, Interpersonal therapy, problem solving therapy are of use. Elderly clients benefit from pharmacological agents as do young adults. SSRIs, SNRIs are first line treatment as in younger age group. Depression in this age group tends to respond slowly to treatment than younger individuals. Considering body metabolism, renal function doses should be monitored. A number of natural supplements have some evidence of efficacy in geriatric people. . Advances in neurobiological understanding will help us in more better management of depression in late life.

SYMPOSIUM 96. Title: Current Status of Neuroimaging in Dementias

Jilani AQ[1], Shrikant Srivastava[2], Shantanu Bharti[3], Dhananjay B Chavan[4]

Dementias are common neuropsychiatric disorders among elderly. In view of rapidly increasing proportion of elderly population worldwide, especially in developing nations, it is expected that the rise in the prevalence of dementia will be exponential taking a form of epidemic.

Since, dementias have progressive and irreversible course, earlier diagnosis is essential for the initiation of appropriate treatment.

The standard diagnostic guidelines including ICD-10 and DSM-V emphasize the presence of minimal set of clinical signs/symptoms for making the diagnosis. But National Institute of Ageing – Alzheimer's Association (NIA-AA) in 2018 have proposed that, at least for research work, the diagnosis of dementia should be made based on biomarkers and or post-mortem findings, and should be equally valid for cohort studies and interventional clinical trials (Jack et al 2018). It is well known that the neuropathological changes, which are responsible for clinical manifestations, appear even a decade before onset of clinically detectable disease and this could be detected by various Neuroimaging procedures for early intervention.

In this regard, we will discuss early detection of dementias under following headings.

A: Introduction: Epidemiology, staging and clinical manifestation of various types of dementia: Dr. Shrikant Srivastava, MD, MSc, FRCPsych

B: Neuropathological basis of Neuroimaging: Dr. Jilani AQ, MD, DNB, DM

C: Neuroimaging techniques and specific finding in various dementias: Dr. Shantanu Bharti, MD

D: Special emphases on PET scan in neurodegenerative dementias: Dr. Dhananjay B. Chavan, MD

……

1: Dr. A. Q. Jilani, MD, DNB, DM, Assistant Professor, Department of Psychiatry, Era's Lucknow Medical College, Lucknow, India. Email id: imjilani@gmail.com

2: Dr. Shrikant Srivastava, MD, MSc, MRCPsych (UK), Head of Department, Department of Geriatric Mental Health, King George's Medical University, Lucknow, India. Email id: shrikantsrivastava@kgmcindia.edu

3: Dr. Shantanu Gupta, MD, Associate Professor, Department of Psychiatry, Era's Lucknow Medical College, Lucknow, India. Email id: shantanubharti@gmail.com

4: Dr. Dhananjay B chavan, MD, Fellowship in Geriatric Psychiatry, Consultant geriatric Psychiatrist, Pune, Mmbai, India. Email id: dhananjay65@gmail.com

SYMPOSIUM 97. Human rights, legal provision and challenges in research, admission, treatment, rehabilitation of a person with homeless mentally ill in India.

Authors

1) Dr Guru S Gowda,
Assistant Professor under Mental Health Care Management System,
Department of Psychiatry, National Institute of Mental Health and Neurosciences, Hosur Road, Bangalore - 560029

2) Dr Vinay Basavaraju,
Senior Specialist Grade Psychiatrist,
Department of Psychiatry, National Institute of Mental Health and Neurosciences, Hosur Road, Bangalore - 560029,

3) Dr Barikar C Malathesh,
Senior Resident, Department of Psychiatry,
National Institute of Mental Health and Neurosciences, Hosur Road,
Bangalore - 560029

4) Dr Gaurav Singh
Assistant Professor, Department of Psychiatry,
K D Medical College, Mathura, Uttara Pradesh
Presentation prepared – Symposium (90 minutes)
Correspondence
Dr Guru S Gowda
Assistant Professor under Mental Health Care Management System
Department of Psychiatry
National Institute of Mental Health and Neurosciences, Hosur Road,
Bengaluru - 560029
Guru S Gowda[1], Vinay Basavaraju [1], Barikar C Malathesh, [1] Gaurav Singh[2]

(1) Department of Psychiatry, National Institute of Mental Health and Neurosciences, Hosur Road, Bangalore - 560029

(2) Department of Psychiatry, K D Medical College, Mathura, Uttara Pradesh

The Homeless Mentally Ill (HMI) represents a unique problem in developing countries like India in the context of legal issues, human rights, humanitarian considerations, and admission, treatment and rehabilitation issues. In India, service and provisions remain limited and most of the HMI person does not have satisfactory access to mental health facilities. The HMI patients have received small attention from Non-Government Organizations (NGOs) in India in the last one decade. Moreover, services provided by NGOs may be difficult to sustain over time and on larger scales. To address the problem of homeless mental illness, National Mental Health Policy – 2014 of India is kept as one of the objectives as increase access to mental health services for vulnerable groups like homeless persons. The New Mental Health Care Act of India, 2017 has provisions for the high supported admission, treatment, and rehabilitation of homeless mentally ill patients and also involves police and legal services to provide service. Effective provisions and separate national policy are required to care for the HMI patients whose plight is borne out of a combination of health, socioeconomic and human right issues. Recent research from a different part of India on the homeless mentally ill person, thrown lights on the sociodemographic profile, clinical outcome, practical challenges of HMI person and No clear estimate about the prevalence of HMI in India, as per 2016, National Mental Health Survey of India. However, there is a need for a precise definition of homeless mentally ill person and identification of the target population; it will help in a proper understanding of its size and association with psychiatric disorders, as well as factors such as homeless people's access to care, adherence to treatment, and follow-up. This help in national planning, innovations in the mental health service system for HMI.

Key Words –
Homeless Mentally Ill;
Human Rights;
Legal Rights;
Mental Health Care Act of 2017; India.

SYMPOSIUM 98. The Rights and Laws related to persons with Mental Illness : International & Indian Scenario

This symposium is intended to highlight the issues related to human rights and laws pertaining to Mental illness. It will be discussed under the following subtopics:

(1) Rights and Laws related to Persons with Psychiatric disorders – Dr Susanta Kumar Padhy (Additional Professor, Department of Psychiatry, PGIMER,Chandigarh; currently at AIIMS, Bhubaneswar; email –susanta.pgi30@yahoo.in)

(2) Laws related to persons with Addictive disorders - Dr Subodh BN (Additional Professor, Department of Psychiatry, PGIMER, Chandigarh; email-drsubodh2002@gmail.com)

(3) Privacy, Rights and Laws safeguarding the interests of persons with Addictive disorders – Dr Swapnajeet Sahoo (Assistant Professor, Department of Psychiatry, AIIMS, Bhubaneswar; email – swapnajit.same@gmail.com)

Persons with mental illness have been subjected to severe basic human rights violation since time immemorial. However, with the advent of human rights activists and stigma discrimination campaigns across the World, most of the countries have framed several laws to safeguard the rights of persons with mental illness. In India, the recent Mental Health Care Act, 2017 has revolutionized with the description of new rights for persons with mental illness. Persons with addictive disorders also fall under the purview of mental illness. But there are laws to punish the persons with addictive disorders with a view to curb the problem of drug menace all over the World. The Government of India has also framed few laws so as to fight with drug addiction. However, many a times, persons with addictive disorders are debarred from exercising basic human rights and privacy benefits. Hence, recently new laws have been framed so as to safeguard the basic interests of persons with addictive disorders too. Most of the mental health professionals are unaware of the common issues related to privacy, rights and laws related to persons with mental illness (including addictive disorders).

SYMPOSIUM 99. CUCKOOS OF BOLLYWOOD – IMPLICATIONS FOR SOCIETY

Sub-topics for discussion
1. Analysis of films between 1936 – 1970
2. Analysis of films between 1971 – 2017
3. Summary and future vision

Faculties
1. Dr Tophan Pati
2. Dr Pranab Mahapatra
3. Dr Sanghamitra Pati

Cinemas in India and the Indian society have been inextricably linked. Movies reflected different social issues across time and leave a strong impression on the mind of viewers. This in turn influences subsequent action by individuals as well as the society as a whole. Hindi Cinema, popularly known as Bollywood has the highest reach and coverage among the Indian population.

Since inception, medical issues have remained one of the favourite themes of Bollywood films. Mental illness and mental health care is one of such issues. The way in which mental illnesses, reel psychiatrists and mental health care settings are presented and portrayed on screen, have modulated people's attitudes and perceptions towards the illness.

Mainstream cinema, released between 1935 and 2018, with mental illness as a plot-driving theme or an affected character as collated from Desk Review, Bollywood related books, internet sources etc reveal portrayal of diverse presentation of mental morbidity as perceived by the film maker.

The art of cinematic storytelling has changed, backed up by technological advances, thus transforming a grainy black and white film adding sound, colour and special-effects, to create a vivid lifelike experience. Simultaneously, the connotation of mental illness, treatment and rehabilitation modalities and the social attitude have undergone a great advancement.

Although there are movies which present the mental health concerns with a positive social message, yet, there are a plenty of movies which do not serve the purpose. Across the decades, movies show the embeddedness of the problem within contemporaneous socio-cultural milieu and an evolving psychiatric care.

The symposium intends to deliberate on and discuss these issues. It is hoped that changing society and progressively better mental healthcare should influence and guide depiction of afflictions of the mind in movies.

SYMPOSIUM 100. ARE WE PATHOLOGIZING COMMON BEHAVIOURS: A DEBATE ON BEHAVIOURAL ADDICTION

Speakers:
1. Dr. Umesh S,
Assistant Professor,
Department of Psychiatry,
Kasturba Medical College, Manipal, Karnataka
umesh.s@manipal.edu
2. Dr.Samir K Praharaj,
Professor,
Department of Psychiatry,
Kasturba Medical College, Manipal, Karnataka
samir.kp@manipal.edu
3. Dr. Ravindra Munoli,
Assistant Professor,
Department of Psychiatry,
Kasturba Medical College, Manipal, Karnataka
ravindra.nm@manipal.edu

Following the changes to the diagnostic category for addictive disorders in Diagnostic and Statistical Manual- 5th Version (DSM-5), an expanding body of research has increasingly classified engagement in a wide range of common behaviors and leisure activities as possible behavioral addiction. Some disorders although have serious consequences, for example gambling disorder and gaming disorder, others in the list seems no more than a sheer *'behavioural excess'*. There is now a growing body of evidence that views a number of behaviours as potentially addictive, including excessive internet use, sex, exercise, using smartphones, taking photographs of self and so on. Are we pathologizing common behaviours or is there something that may require an attention. The symposium shall be designed in a way that will have an essence of a debate. It will include an overview of behavioural addiction. Then the speakers will be focusing on expressions of behavioural addiction i.e. impact on subjective distress, nature and severity of harms, functional impairment and whether all disorders classified under the rubric of behavioural addictions satisfy them. Next, there will be a discussion on the boundary between healthy engagement and disorder, taking into account normative aspects of a given behavior. There will also be a debate on whether we are right in pathologizing and treating such behaviours, if required, how and with what?

SYMPOSIUM 101. Title: Yoga and Mental Health: Indian Perspective

S.K. Tandon [1], Manish Borasi [2], Manish Meel [3] , Rajesh Rathi [4]

[1,2]Department of Psychiatry, CMCH, Bhopal, Madhya Pradesh, [2] Dr. V.D. Meel Psychiatry Hospital , Sikar, Rajasthan, [3] Consultant Psychiatrist at Apex Clinic, Nagpur, Maharashtra

Yoga is derived from the Sanskrit verb *Yuj* meaning integration or unity, It indicates an integration between the individual self and the transcendental self. *Bhagavad Gita* and the *Svetashvatara* & *Maitri* Upanishads provide earliest references regarding existence of the role of yoga in maintaining positive mental health.

Although yoga in modern society has been often thought of as a form of physical exercise, traditionally, yoga practice has been a multidimensional discipline involving different postures and physical exercises, breath regulation techniques and the control of attention and enhancement of mindful awareness through the practice of meditation. These practices are often accompanied by a distinct psychological and physiological changes in the practice of a "yoga life-style." Historically, the practice of yoga was a spiritual discipline whose goal was spiritual advancement and these component practices were intended to create an ideal state of psycho-physiological health and optimal functioning of body and mind in support of contemplative states of consciousness. However, in modern society, these yoga practices have often been used in a more limited application in order to maintain physical fitness and psychological well-being and also as a therapeutic intervention for psychological and medical disorders, or so called "yoga therapy," both of which have become highly popular in the general public internationally. Documented evidence for the systematic use of yoga as therapy appears in the early 20th century in India, and the popularity of yoga therapy has grown steadily both in India and internationally. Yoga practices have a place in the healthcare system as a treatment for a variety of psychiatric conditions, at least as an adjunctive if not as a primary therapy.

1. *Introduction of Yoga: Dr.S.K. Tandon*
2. *Physiological and Psychological correlates of Yoga: Dr. Manish Borasi*
3. *Implications of Yoga therapies in different psychiatric disorders: Dr. Manish Meel*
4. *Recent Research- Indian Context : Dr. Rajesh Rathi*

SYMPOSIUM 102. Artificial intelligence in behavioral prediction: Opportunity and challenges.

Dheerendra Mishra,[1] Naresh Solanki,[2] Vijay Niranjan[3]*

1.Department of Psychiatry , Shyam Shah Medical College Rewa (M.P.) India
2.Department of Psychiatry , Atal Bihari Vajpayee Medical College Vidisha (M.P.) India
3.Department of Psychiatry , M.G.M. Medical College Indore (M.P.) India

Objective

The goal of this workshop is to understand andto know about this new technology "artificial intelligence (AI)" and its clinical implication in behavioral sciences in current scenario or in upcoming future. AI works based on previous stored data and can better predict future responses. This technique is helpful in predicting the deviance in neuroanatomical maturity which is associated with future psychosis, suicide predictions and many more future behavioral, developmental and response of pharmacological or non-pharmacological can be predicted in a better way. This technology has promising role in better understanding of pathophysiology and treatment outcome of psychiatric illness.

Brief Description:

AI is a domain of computer science which focuses on the creation of intelligent machines working and reacting like human beings. The algorithms of AI can learn from data. The core concept of artificial intelligence include programming computers for certain traits such as: knowledge, reasoning, problem solving, perception, learning, planning, ability to manipulate and move objects. For AI programming, languages like Python, R.T.,LISP,PROLOG, JAVA etc.are used to create neuronal network. There are numerous applications of artificial intelligence in behavior science apart from consumer and business spaces.

Keywords: Artificial intelligence, Neuronal network, Deep learning, Deep mind.

SYMPOSIUM 103. Title: Epilepsy and it's management in relation to Psychiatry: An update

Participants:

1. Dr Ranjan Das, Assistant Professor, Raiganj Medical College,West Bengal.

2.Dr Sumit Mukherjee, Program Officer, District Mental Health Program, R.G.KAR MCH, Kolkata.

3. Dr. Sk Ashik Uzzaman (Senior Resident, R.G.KAR MCH,WB)

Lecture will be divided into 3 sub headings

A) Introduction and clinical presentations.

B) Association of different psychiatric illness with epilepsy

C) Management & future directions

Relationship between epilepsy and psychiatry have been attracting attention in medical literature continuously. Epilepsy is a chronic disorder characterized by recurrent seizures, or a seizure of a paroxysmal brain dysfunction due to excessive neuronal discharge. Association between psychological symptoms and epilepsy can be related to several factors such as the possibility of shared etiology, stigma and psychosocial factors related to epilepsy, and the adverse psychiatric reactions of antiepileptic drugs. Some psychotropic medications are epileptogenic; and this should also be remembered when prescribing a psychotropic medication. Psychiatric disorders in epilepsy can be classified, based on their relationship to seizures, like: pre-ictal symptoms, inter-ictal psychiatric disorders occurring between seizures; ictal psychiatric symptoms occurring during the seizure events; and post-ictal psychiatric symptoms following seizures. Sometime, an altered mental state can be the only sign of non-convulsive status epilepticus such as that of complex partial or absence types of seizures. Psychiatric conditions that are commonly associated with epilepsy are depressive disorder, anxiety disorder, attention-deficit hyperactivity disorder and psychoses. Data from the California Health Interview Survey conducted in 2005, including data from adult participants with history of epilepsy, showed that 27% had psychological distress associated with epilepsy, and 84% of them needed mental health care, and 57% have been seen by a mental health professional. Behavioral aspects of epilepsy were well-studied in temporal lobe and mesial temporal lobe epilepsy compared with other

types of epilepsy. It may be due to that temporal lobe epilepsy represents the majority of cases with focal epilepsy, has well-defined underlying pathology (hippocampal sclerosis), has early onset of symptoms, and has prominent neuropsychiatric manifestations and memory impairment. This symposium focuses on the various psychiatric presentations commonly associated with epilepsy and psychiatric symptoms that emerge as side effects of antiepileptic medications, like possible risk of depression and suicide etc.

Key words: Epilepsy, Psychosis, Mood disorders, Psychotropic, Antiepileptic

SYMPOSIUM 104. Psychotropic induced Hematological Disorders

Speaker - Sujit Sarkhel[1], Subir Bhattacharjee[2], Nikhiles Mandal[3]

1. Associate Professor, Dept. of Psychiatry, IPGME&R, Kolkata
2. Assistant Professor, Dept. of Psychiatry, PGMCH, Purulia
3. Assistant Professor, Dept. of Psychiatry, IPGME&R, Kolkata

Hematological disorders are rare but extremely serious, adverse effects of psychotropic drugs. Almost all classes of psychiatric drugs (typical and atypical antipsychotics, antidepressants, mood stabilizers, benzodiazepines) have been reported to cause hematological toxicity. It includes: aplastic anaemia, haemolytic anaemia, leukopenia, agranulocytosis, leukocytosis, eosinophilia, thrombocytosis, thrombocytopenia, disordered platelet function and impaired coagulation.[1] Possible mechanisms behind those blood dyscrasias are decreased blood cell production due to bone marrow toxicity, immune complex formation, hapten formation, autoantibody production and in those with glucose-6-phosphate dehydrogenase (G6PD) deficiency, oxidative red cell damage.[2] Psychiatrists are often unaware of the potential hematologic complications of the psychotropics they prescribe. Knowledge and early recognition is crucial in dealing with effects of these serious and sometimes fatal adverse effects.

Topic 1: Psychotropic and disorder of leukocytes

Agranulocytosis is characterized by profound reductions in granulocytes and a neutrophil count of less than 5x 10^9 per liter. Drug-induced agranulocytosis can be caused by direct marrow toxicity or due to immune reaction. Atypical antipsychotic clozapine is well known to cause agranulocytosis, carrying an incidence rate of 2-3 per cent of neutropenia [3] and continuous treatment needs strict and scheduled blood monitoring of leukocyte count. [4] Chlorpromazine is also reported for a delayed-onset agranulocytosis, with severe cases occurring in 0.1 per cent of patients taking standard doses.[3] Mood stabilizer valproate and carbamazepine were also associated with 'severe neutropenias'.

Topic 2: Psychotropic and disorder of red blood cell and thrombocyte

Aplastic anemia is a rare failure of haemopoietic stem-cell and characterized by pancytopenia and bone marrow aplasia.[5] Mood stabilizer valproic acid, carbamazepine and lamotrigine were reported to cause aplastic anemia, having odds ratio of 9.5 (95% CI 3.0-39.7) compared with non user. [5]

Thrombocytopenia is indicated when there are severe reductions in platelet count to less than 150x10^9 per liter and symptoms may vary from less severe petechiae and purpura to more severe intestinal and cerebral haemorrhage. It may be due to direct effects on the bone marrow, or through an autoimmune mechanism. Perazine, carbamazepine, clomipramine, diazepam and sodium valproate had significant report of thrombocytopenia.[6]

Topic 3: Management of drug induced hematological disorder

The primary treatment of drug induced hematological disorder include discontinuation of the offending drug and symptomatic support to the patient with the goal to improve peripheral blood counts, limit the requirement for transfusions, and minimize the risk for infections. Patients must receive transfusion support with erythrocytes and platelets, as well as appropriate antimicrobial prophylaxis or treatment during neutropenic periods. [7] Routine use of growth factors such as recombinant human erythropoietin and granulocyte colony-stimulating factor (G-CSF) has not been recommended except there are life threatening infections. Rechallenging a patient with a suspected agent in an attempt to confirm a diagnosis is not recommended.

SYMPOSIUM 105. CYBER PORN

Dr.Sai kiran Pasupula , Dr.Kota Suresh Kumar

Department of Psychiatry, Katuri Medical College , Guntur.

Pornography addiction is an addiction model of compulsive sexual activity with concurrent use of pornographic material, despite negative consequences to one's physical, mental, social, or financial well-being. One school of thought which views cyber porn positively is that Sex Addicts often turn to the internet as a new and safe sexual outlet to fulfill their compulsions without the expense of costly 900-lines , porn magazines , the fear of being seen at an adult bookstore, or the fear of infections in commercial sex. But the other school of thought is that viewing Cyber Porn and porn sites may promote sexual desire which leads to sexual offences. Recently few minor children who committed sexual offence on a minor girl said that viewing porn sites made them to commit the sexual offence. Another disadvantage is youth who viewed edited cyber porn videos feels that they can't do such prolonged sex which gives rise to doubts about their sexual capacity which ultimately causes performance anxiety. More over people's thinking and fanaticizing capacity has reduced following repeated viewing of cyber porn.

SYMPOSIUM 106. Title: Role of Transcranial Direct Current Stimulation in Substance Use Disorders

Participants:

1. Dr Chetan Dilip Vispute. MD DNB MNAMS. Assistant Professor. Department of Psychiatry. D Y Patil Medical College. Navi Mumbai

2. Dr Deepika Singh. MD. Assistant Professor. Department of Psychiatry. BJ Medical College and Sasoon Hospital, Pune.

3. Dr Milind Thanki. MD. Post Doctoral Fellow in Non-Invasive Brain Stimulation in Psychiatric Disorders. Senior Resident. NIMHANS. Bengaluru.

Outline of the proposed symposium:

Substance Use Disorders are associated with the dysfunctionalities in the Pre Frontal Cortex (PFC), which plays a significant role in the mechanisms associated with the craving. The desire to consume drugs is enhanced due to the PFC activation on exposure to drug related cues. Transcranial Direct Current Stimulation (tDCS) is a non-invasive brain stimulation technique which increases or decreases cortical excitability by inducing changes in resting membrane potential. Effectiveness of tDCS has been already demonstrated in the Depression, OCD and treatment resistant hallucinations in Schizophrenia.

This usefulness of this novel modality of treatment has been tested in the Substance use disorders including alcohol, Nicotine, Cocaine etc recently. The presenting authors wish to highlight and explore the potential benefits of tDCS in reducing craving, cognitive improvement & improvement in executive functioning in substance use disorders through this symposium at ANCIPS 2019 Lucknow.

SYMPOSIUM 107. Title: Movement disorders: from a psychiatrist's perspective

1. Psychiatry and Movement disorders: an overview. (Dr KC)

2. Psychogenic movement disorder. (Dr RB)

3. Drug induced movement disorders. (Dr RN)

Speakers with affiliations:

1. Dr Kaustav Chakraborty. MD, DNB, MNAMS. Assistant

Professor & HOD, Deptt of Psychiatry, College of Medicine & JNM Hospital, Kalyani, West Bengal, India.
2. Dr Ranjan Bhattacharyya. MD, DNB, MNAMS. Assistant professor & HOD, Deptt of Psychiatry, Murshidabad Medical College & Hospital, West Bengal, India.
3. Dr Rajarshi Neogi. MD (PGIMER). Assistant Professor, Deptt of Psychiatry, R.G.Kar Medical College & Hospital, Kolkata,India.

Keywords: Psychogenic movement disorder, Dystonia, tremors, ataxia, consultation liaison, interface neurology and psychiatry.

Abstract:
Movement disorders represent an interface between psychiatry and neurology. The brain circuitry involved in movement disorders are also involved in regulating mood and emotions. Co-existence both the conditions are also not uncommon where it poses a challenge to clinicians.
Psychogenic movement disorders (PMD) can mimic dystonias, dyskinesias or an epileptic attack. Patients with PMD often have preceding psychosocial stressors. The episodes are usually longer, recovery uneventful and doesn't follow the usual deficits that found in neurological disorders. Non epileptic attacks (NEA) are most difficult to diagnose which often warrant video EEG and advanced neuroimaging techniques. The most important is to rule out Non convulsive status epilepticus in such patients. Rapport building and long term psychotherapeutic engagement is the most helpful in such patients. Pentothal abreaction has also been tried successfully.
Psychotropic drugs often produce movement disorders both in short and long term. First generation antipsychotics (FGAs), both oral and depot preparations, produce parkinsonian like symptoms (tremor, cog wheel rigidity etc), acute dystonia in the short term and the tardive dyskinesia (TD) in the long term. Mood stabilizers like sodium valproate, lithium and oxcarbazepine can produce tremor and gait ataxia.SSRIs and SNRIs are also known to produce appendicular tremors. Benzodiazepines (BZDs) may produce gait ataxias, tremors etc. Psychoactive substance withdrawal states can also be associated with movement disorders like delirium tremens (DT). The appendicular tremors may be a part of psychiatric disorders per se e.g major depressive disorders (MDD), anxiety disorders etc.
Moreover a modern day psychiatrists have to face the challenges of treating patients with neurological disorders such as Idiopathic Parkinson's disease (IPD), Huntington's disease (HD), Wilson's disease, Stroke, epilepsy etc which often has psychiatric comorbidities. Therefore psychiatrists need to be well versed with the neurological pathways involved and emerging new modalities in the treatment disorders.

Dr Ranjan Bhattacharyya.
MD, DNB (Psychiatry), MNAMS.
Assistant Professor & HOD,
Deptt of Psychiatry, Murshidabad Medical College & Hospital.
Email: drrbcal@gmail.com
rankholders06@yahoo.co.in
Website: www.drranjanbhattacharyya.com.
29, Anandasree, Garia, Kolkata-700084, India.

SYMPOSIUM 108. Title: Harm Reduction for Opioid Use Disorder:

Current status
1. Overview of harm reduction -Dr. Alok Agrawal
2. Global status of Harm Reduction - Dr. Roshan Bhad
3. Current status of Harm Reduction in India - Dr. Amit Singh
4. Harm Reduction: Concluding remarks - Dr. Ravindra Rao

Abstract: Opioid use disorder is a major public health issue with adverse consequences to lives of the affected individuals, their families and the society as a whole. Injecting drug use further add to the complications in the form of risk of HIV and other blood-borne infections as well as overdose deaths. To tackle the problem a harm reduction approach that aims primarily to reduce the adverse health, social and economic consequences of the drug use without necessarily reducing its consumption has successfully been employed. Various interventions including needle and syringe programmes (NSP), opioid substitution therapy (OST), naloxone distribution and patient outreach and education services are form of harm reduction services with shown effectiveness in reducing the spread of infections, decreasing social and legal complications and preventing overdose deaths. Despite being pragmatic and evidence-based, global implementation of the harm reduction services including OST and NSP has been highly variable; being governed by the differing policies of individual countries. Various national and international organizations including WHO, UNAIDS, UNODC are working towards developing a consensus for better utilization of these evidence-based interventions. The need to uniformly expand and scale-up the harm reduction services cannot be overemphasized. Moreover, the barriers that exist to its implementation at regional level and globally need to be understood. This symposium will try to advance the understanding on the harm reduction approach in relation to opioid use disorder. Keywords: Harm reduction, Opioid substitution therapy, Needle and syringe programme Conflict of interest –None

SYMPOSIUM 109. Conquering the 'double trouble' - revolution in the management of hepatitis C with co-morbid substance use disorders

Speaker 1 (Abhishek Ghosh)

Speaker 2 (Madhumita Premkumar)

Speaker 3 (Aniruddha Basu)

Although the global prevalence of hepatitis C (HCV) ranges from 0.5% to 2.3%, among individuals with injection drug use the prevalence of HCV is between 40%-80%. The lifetime prevalence of substance use disorders in individuals with HCV is nearly 50%-80%. We wish to call psychiatrists' attention to the unique co-occurrence of HCV and substance use disorders (SUD).
Speaker 1 (Abhishek Ghosh): Epidemiology of HCV and its link with substance use
An estimated 71 million people have chronic hepatitis, globally. A substantial minority of those develop cirrhosis of the liver. Nearly 0.4 million people die each year. Despite this considerable burden, merely 20% of patients were aware of their diagnosis, and 7% would receive treatment. People with substance use disorders have poorer rates of treatment seeking and completion. Moreover, alcohol use worsens the prognosis of chronic hepatitis. Unknown and untreated HCV in patients with SUD is a public health threat.
Speaker 2 (Madhumita Premkumar): Screening and treatment of HCV in patients with SUD
WHO recommends offering universal screening for HCV in patients with SUDs. With the advent of the directly acting antivirals (DAA) the cure rate of HCV is nearly 95%. Introduction of the generic versions has reduced their cost. Nevertheless, there is a controversy regarding the use of DAAs in patients who are actively using drugs or alcohol.
Speaker 3 (Aniruddha Basu): Treatment of substance use in patients with hepatitis C
All patients with HCV must be screened for the presence of substance use disorders. Brief intervention has been found to be effective for heavy alcohol use with co-morbid HCV. Opioid substitution therapy (OST) reduces the acquisition and transmission of HCV. It improves the rates of sustained virologic response too. Research support for other harm reduction strategies like the needle-syringe exchange is equivocal.

SYMPOSIUM 110. PERINATAL PSYCHIATRY-PREGNANCY, POST-PARTUM AND BEYOND

Sub topics:

ü *Dr Priya Nayak K, Assistant Professor, FMMC:*

A review of prevalence and classification of psychiatric illness in pregnancy and postpartum will be discussed.

ü *Dr Supriya Hegde Aroor, Professor Psychiatry, FMMC:*

Treatment guidelines of psychiatric illnesses during pregnancy and postpartum period will be discussed with emphasis on teratogenicity and safety during breast feeding.

ü *Dr Preethi , Director, Spandana, Bengaluru:*

Introduction:

Perinatal mental illness is a significant complication of pregnancy and postpartum period. These include depression, anxiety disorders and postpartum psychosis and bipolar illness. Approximately 10-20% of women suffer these illnesses during pregnancy and first year postpartum. The theme of this year is 'Mental Health- Nation's Wealth'. Statistically speaking, women represent half of this nation. It becomes very important to cater to the mental health of women who contribute in the true sense to our nation's wealth by not only being a part of the work force but also by nurturing the other half. Pregnancy and postpartum are very challenging periods in a woman's life. They are psychologically taxing as well. Psychiatric illnesses can impair both functioning and quality of life. It is important to understand and treat psychiatric illnesses during this period to salvage this important work force. By helping them we are not only safeguarding their health but also protecting the new life they nurture and the family they serve. In fact, the wellness during perinatal period may determine the psychological wellness and wealth of the entire family and in the broader sense, the entire nation.

Objectives:

- To provide those attending the concept of perinatal psychiatry and its evolution into an entity of importance.
- The epidemiology will be reviewed.
- Recent classification and diagnostic criteria will be discussed.
- Treatment guidelines will be elucidated with special emphasis on teratogenicity and safety during breast feeding.

Preventive strategies, importance of antenatal screening and risk in future pregnancy will be presented. Course and prognosis will be explained.

SYMPOSIUM 111. Title: Perinatal psychiatry: Emerging psychiatric subspecialty

Speakers- Dr Ashok Kumar[1], Dr Hitesh Khurana[2], Dr Rajendra Acharya[1]

[1]Assistant Professor, Department of psychiatry, Dr S N Medical College-Jodhpur, [2] Professor, Department of psychiatry, PGIMS-Rohtak

Perinatal mental health received increased attention over the last few decades as studies from the developed world demonstrated significant maternal morbidity and mortality due to mental health problems. Perinatal mental health also affects birth outcomes and offspring development in significant manner. The purpose of this symposium is to present the importance of perinatal psychiatry so it gets better attention and can be recognized as important subspecialty of psychiatry. The subsections of symposium are as follows

1. Post Partum Psychosis (PP)- Postpartum psychosis is psychiatric emergency, which often strikes during first four weeks of childbirth. The etiological determinants include hormonal, genetic and immunological factors. Environmental factors such as sleep deprivation, obstetric complications and stress increase the risk for PP. Personal history and family history of PP is the most important predictor of PP. The PP often presents with odd affect, withdrawal from surroundings, confusion, agitated, and distraction by auditory hallucinations, mood lability and increased activity. The most worrisome consequences include suicide and homicide. The prognosis is better than psychosis occurring at other time, as 80% of PP remains symptoms free after a single episode.

Postpartum depression (PD)- Postpartum depression is most common psychiatric disorder experienced by women after childbirth. PD episodes are often characterized by violent intrusive thoughts, sadness, ideas to harm self or baby, overwhelming anxiety, feeling of burden, somatic complaints and psychotic symptoms. Women with interpersonal difficulties, past history of depression, childhood sexual abuse and trauma face increased risk for PD.

Treatment of PD and PP- The center for disease control (CDC) draws attention to the fact that "treating for two" approach is more important while treating perianal psychiatric disorders. Moderate to severe perinatal psychiatric disorder require comprehensive approach with use of medications and psychotherapy.

SYMPOSIUM 112. Comorbidities in obsessive-compulsive disorder – A Clinician's Perspective

Chairperson:

3. YC Janardhan Reddy, Professor of Psychiatry, Consultant OCD Clinic, National Institute of Mental Health and Neuro Sciences, Bengaluru

Presenters:

4. Schizophrenia and bipolar disorder in patients with OCD: Clinical challenges

Shyam Sundar Arumugham, Additional Professor of Psychiatry, Consultant OCD Clinic, National Institute of Mental Health and Neuro Sciences, Bengaluru

5. Management of comorbidities in childhood OCD

Eesha Sharma, Assistant Professor, Department of Child and Adolescent Psychiatry, National Institute of Mental Health and Neuro Sciences, Bengaluru

6. Evidence based management of obsessive-compulsive spectrum disorders

Jaisoorya TS, Additional Professor of Psychiatry, Consultant OCD Clinic, National Institute of Mental Health and Neuro Sciences, Bengaluru

Obsessive-compulsive disorder (OCD) is a common and disabling neuropsychiatric condition afflicting 2% of the general population. As in other psychiatric disorders, comorbidity is often the rule. Studying comorbid conditions has enhanced the understanding of pathophysiology of the condition and thrown challenges in management. In this symposium, we discuss current understandings regarding common comorbidities in patients with OCD from a clinician's perspective. All the faculty presenting the symposium are attached to the specialty OCD Clinic, NIMHANS which has recently commemorated two decades since inception. Professor Y. C. Janardhan Reddy, Head OCD Clinic, NIMHANS will chair and control the proceedings. Dr. Shyam Sundar Arumugham will discuss comorbid schizophrenia and bipolar disorder in patients with OCD. The prevalence of these conditions is higher in OCD patients as compared to the general population. The presence of these comorbidities is associated with marked dysfunction and has important treatment implications. Childhood-onset OCD has been recognized to have distinctive features such as increased prevalence of symmetry/ordering symptoms, comorbid neurodevelopmental disorders such as tic disorders and attention deficit hyperactivity disorder, etc. Studying these comorbidities has helped improve the understanding of phenomenology (e.g. sensory phenomena) as well as management (e.g. antipsychotic augmentation) of OCD. Dr. Eesha Sharma will address the challenges in managing these complex comorbidities in childhood OCD. The recent reclassification of OC Spectrum disorders in DSM-5 is likely to increase awareness and presentation to clinical practice. Dr. Jaisoorya TS will outline the principles of evidence-based management

of common spectrum disorders including body dysmorphic disorder, trichotillomania and hoarding disorder.

SYMPOSIUM 113. Treatment resistance schizophrenia: A recent update

Aseem Mehra[1], Subodh BN[2], Sandeep Grover[3]

[1]Assistant professor, [2]Additioanl professor, [3]Professor
Department of Psychiatry, Post Graduate Institute of Medical education and research,
Chandigarh, India, 160012
Corresponding author:
Subodh BN, M.D. Additional Professor; Department of Psychiatry
Post Graduate Institute of Medical education and research Chandigarh, India 160012.
Tel: 0172-2756814, 2756818
Email: drsubodhbn2002@gmail.com

Fax: 0172-2744401, 2745078

About one-third of patients with schizophrenia do not respond to sequential antipsychotic trials and qualify for treatment resistant schizophrenia (TRS). This symposium aims to discuss the conceptual issues related to defining TRS and management of TRS.

Concept of TRS: TRS is defined as failure to respond to 2 adequate antipsychotic trials, i.e., antipsychotics given in adequate doses and for adequate duration.

Management of TRS: Clozapine is considered to a drug of choice for management of schizophrenia. However, clinicians are often reluctant to use clozapine because of need of monitoring and its side effect profile. About one-third of patients with TRS also do not respond to clozapine. However, studies have also evaluated alternative strategies in the management of TRS

Post-clozapine strategies: About one-third of patients with TRS do not respond to clozapine. In such a scenario, augmentation with second antipsychotics, antidepressant, mood stabilizer, other novel agents and electroconvulsive therapy has been used. Among these ECT has been shown to be most effective.

SYMPOSIUM 114. ARTIFICIAL INTELLIGENCE IN MENTAL HEALTH SERVICES: PRESENT AND FUTURE

Name of Presenting Author: Dr. Krishna Patel
Affiliation of Presenting Author: Assistant Professor, Dept. of Psychiatry, C.U. Shah Medical College and hospital, Surendranagar
Co-Author Name 1: Dr. Vijay Nagecha
Co-Author Name 2: Dr. Manan Desai

AIM OF THE SYMPOSIUM:

Introducing and sensitizing the mental health professionals towards the use of artificial intelligence in the field of Psychiatry

CORE CONTENT:

Artificial Intelligence (AI) has started penetrating almost to the core of our very existence. It is used to build machines that are capable of performing tasks that require human intelligence (reasoning, learning, planning, problem-solving and perception).It's time to carry forward AI from our routine life to our mental health clinical practice. Each clinical branch except psychiatry deals more with gross bodily changes and signs rather than abstract symptoms for assessment, diagnosis and complete management. Owing to this, application of AI is much easily utilized by our parallel clinicians much earlier. But progressive sophistications of the available softwares, we are ready to use them in the subtle branch of psychiatry.

We would try to cover specifications of various mobile apps to specific softwares being used in a psychiatry clinic and its clinical implications.

Uses of AI:

1) Consultation
2) Pinpointing clinical symptoms
3) Recording signs
4) Gathering reports of various investigations
5) Inference of a particular diagnosis
6) Making clinical decisions
7) Making clinical plan of work
8) Implementing various modes of treatment
9) Providing education to the clients
10) Robot assisted task completion
11) Conducting psychotherapies
12) Data gathering and research

CONCLUSION:

This symposium will be of use to mental health practitioners interested in learning about, or incorporating AI into their clinical practice and then using the data to carry out research to make evidence based decisions and create further more advanced strategies for management of patients suffering from mental illness. Discussion shall include practical issues that are encountered during clinical practice, ethical issues and limitation of use.

SYMPOSIUM 115. THE NEUROSCIECNCE AND PSYCHIATRIC ASPECTS OF PENEOLOGY.

Introduction-Overview-Moderation – Dr (Brig) M S V K Raju

Neurobiology of Poverty – Dr Shivaji Marella

Psychosocial Aspects of Poverty – Dr Jwalant Chag

Mental Health,Medical and Social solutions – Dr Shivam Sunil

The WHO acknowledges an association between poor mental health and the experience of poverty and deprivation. A wealth of research exists in support of the social causation. This is a complex interaction and the best evidence indicates a cyclical interaction between the experience of poverty inequality and mental illness. Schizophrenia and its relationship to urbanization along with poor economic outcomes is a prototype. Mental health should be included in the policy decision making process for all government economic and social policies. This is lent impetus by the evidence of microfinance and community health services simultaneously reducing both – poverty and mental illness. Around the world new attention is being paid to the idea of a Universal Basic income especially given the coming problem of replacement of humans in jobs by AI and automation.

There are more children living in poverty today than at any time in history. Disorders such as conduct and oppositional disorder in children are found in greater proportions in children experiencing deprivation. Persistent food insecurity causes more internalizing and externalizing problems and is a risk factor independent of the fact of poverty.

New neurobiological research has shown a lower economic status changes methylation of the serotonin transporter which in turn induces greater amygdala reactivity. This in turn mediates anxiety and depression. Poverty also causes brain surface changes in the language, executive, reading and spatial skills areas in children. This is a matter of concern for the long term. There is evidence that shows differences in the way poor children handle rewards and the ability to postpone gratification which changes with change in economic status but does not entirely disappear.

SYMPOSIUM 116. Title: Mental Health at Workplace: Are we practicing enough in India?

Speaker 1, Dr Susanta Kumar Padhy, will introduce the topic and emphasizing the relevance of the topic.

Healthy workplace means healthy Society. Work life balance that support their wellbeing at work is a priority for many employees in in today's changing workplace dynamics and workforce. Traditional ways of looking at the workforce may not hold for too long. World Health Organization (WHO) Report released in 2017 states that 10% of the employed population take time off work for depression; an average of 36

workdays are lost per depression episode; 50% of people with depression are untreated; Cognitive symptoms of depression, such as for instance difficulties in concentrating, making decisions and remembering, are present up to 94% of the time during an episode of depression causing significant impairment in work function and productivity.
Speaker 2, Dr Nidhi Chauhan, will talk about what does a mental health-friendly workplace look like?. The Characteristics of a "good work-place" like welcoming attitude of the employer, valuing diversity, atmosphere that treats mental illnesses at par with physical illnesses, has programs and practices in situ, periodic training for managers, safeguarding confidentiality of employee health information and many others, will be discussed
Third Speaker, Dr Manoj Sahoo speaker will talk about the actions every employee, employer, policy makers should take, including "tips for colleagues, family members, boss. He will also elude how to address, assess, handle and manage such issues including administrative and legal issues at work place.
The symposium will conclude with a discussion on to what extent are we practicing in India?

SYMPOSIUM 117. Title: Sexual Education Among Children and Adolescents

Authors and Affiliations:

Adya Shanker Srivastava, Jai Singh Yadav, Shobhit Jain, Raghunath Prasad Verma, Ajeet Kumar

Adya Shanker Srivastava

Professor and Head,

Department of Psychiatry,

Institute of Medical Sciences,

Banaras Hindu University,

Varanasi – 221005

Sexual Education Among Children and Adolescent: Sexual education deals with human sexuality, including intimate relationships, human sexual anatomy, sexual reproduction, sexually transmitted infections, sexual activity, sexual orientation, gender identity, abstinence, contraception, and reproductive rights and responsibilities. Lack of sexual education may lead to early risky sexual behaviors, and poses several health, social, and legal problems. Developmentally appropriate sexual education is important to help children and adolescents make informed, positive, and safe choices about healthy relationships, responsible sexual activity, and their reproductive health. Further, it helps to reduce the risks of adolescent pregnancy, HIV, sexually transmitted infections, and sexual violence.
Introduction to sexual education – Prof. Adya Shanker Srivastava
Need for sexual education among children and adolescents – Dr. Jai Singh Yadav
Global Scenario – Dr. Raghunath Prasad Verma
Indian Perspective – Dr. Ajeet Kumar
Delivery of services – Dr. Shobhit Jain

SYMPOSIUM 118. Community Psychiatry Services By General Hospital Psychiatry Unit (GHPU), KIMS, HUBBALLI.

Authors/Presenters:

Dr.Sagar S Garag, 2nd year PG, Department of Psychiatry KIMS, Hubli

Dr.Nishmita T.J, 2nd year PG, Department of Psychiatry KIMS, Hubli

Dr.Sameer Belvi Mangalwedhe, Assistant Professor, Department of Psychiatry KIMS, Hubli

Dr.Arunkumar C, Associate Professor, Department of Psychiatry KIMS, Hubli

Dr.Mahesh Desai, Professor and Head, Department of Psychiatry KIMS, Hubli

Background: Community mental health services are a scarcity in our country. Rural areas persistently face a shortage of mental health specialists. There is a dire need of Psychiatrists/mental health professionals inorder to address mental health issues. Outreach programmes and Tele-psychiatric services will help bridge this gap.
Objectives: To study the clinical profile of patients and assess the utilization of mental health care services provided by Department of Psychiatry, KIMS, Hubballi as part of community Psychiatric services.
Methodology: Retrospective chart review of 3 community activities for last year. Data from mental health camps every Tuesday at a PHC, monthly mental health camp at a nearby village Hebballi and 24 hours Telephone Helpline service were analysed.
Results: Total of 902 patients utilised the services. Majority of the patients attending the camps were males67.5%. Majority of the patients were diagnosed with depression(51.61%), Anxiety disorders18.01%, Epilepsy11.44%, Psychosis10.12%, substance use disorders7.47% and Childhood disorders in1.32%.
A total of 155 calls received. Majority of the callers were males(72.9%), from urban areas(78%), between 20 to 40 years of age, had contacted mental health services for themselves(68.3%) and for the first time. Calls were for issues related to work, academics and family, by persons asking for deaddiction treatment, information regarding sexual problems.
Conclusion: This improves the reach and effectiveness of mental health care in rural areas, thus reducing disease burden of the country. Many such activities should be initiated inorder to address mental health issues at grass root level.
Keywords: : Mental health, Rural areas, Psychiatric services, Helpline

SYMPOSIUM 119. Disasters And Mental Health – Lessons Learned The From Kerala Floods (Symposium)

Topics

1. Disaster mental health: an introduction- Dr Varghese Punnoose, Professor and Head, Dept of Psychiatry -15 minutes

2. Early mental health interventions following a disaster- Dr Sebind Kumar, Assistant Professor–20 minutes

3. Long term mental health interventions following disaster- Dr Varun Rajan, Senior Resident- 20 minutes

4. Lessons learned and future plans - Dr Varghese Punnoose-15 minutes

5. Discussion- 15 minutes

During the last two decades, studies across the world have increasingly highlighted the mental health aspects related to natural disasters. That governments are also waking up to this was exemplified in the aftermath of the recent flood situation in Kerala. As the tertiary care medical centre located in one of the worst flood affected parts of Kerala, the psychiatry department of Government TD Medical College was able to witness and be a part of the relief measures which included mental health interventions. The department also has the experience of dealing with another natural disaster: the tsunami that struck Kerala in 2004. A seamless coordination could be made between various departments in the medical college as well as government and non-governmental organisations. Problems in distributing psychiatric medications in relief camps were noted. Increase in relapses following discontinuation of medications were seen. Another problem area in related substance abuse. The symptoms of substance abuse and related disorders in the healthy male groups usually are not given the emphasis it requires due to multiple reasons including the stigma to contact medical professionals by these groups post disaster and the lack of awareness among subjects

and health workers. These and other aspects related to mental health and disasters and lessons learned would be dealt in detail in the symposium

SYMPOSIUM 120. Mental Health aspects of '#MeToo' movement: challenges and opportunities'

The speakers and topics to be covered are:

1. Mental health aspects of gender relationships and the #MeToo movement-Overview- Prof. R. Srinivasa Murthy, Bangalore. CONFIRMED

2. Way to address gender relationships-Indicative actions-Prof.Mamta Sood, New Delhi. CONFIRMED

3. Way to address gender relationships-Selective actions-Prof.Savita Malhotra, Chandigarh. CONFIRMED

4. Way to address gender relationships-Universal actions-Prof.Pramod Singh, Patna CONFIRMED

5. Indian Psychiatric Society and Psychiatrists Responses-Prof.Ajit Bhide, Bangalore. PENDING

The whole world and India in particular is in the grip of the '#MeToo movement' to address the issues of patriarchy, gender violence and related issues.

The headlines like the following:

"Not a single woman who does not have a #MeToo story"

"Naming and shaming these culprits on social media is the only option""

"Men are trembling"

"The everyday hazards of being in the field"

'#MeToo will change the narrative forever'

To a large extent the whole discourse is one of confrontation and not cooperation to address the issue of gender relations. There is a mental health aspect to the current gender relationships- both the pluses and minuses.

Gender-equation has been an issue in every age, which every culture and society has addressed in their own unique way and the life has gone on. It will be difficult to define what is ideal but every thing is apparently not right in modern times.

This issue needs to be deliberated upon on continuous basis by the society for the sake of a healthy society. Reporting of a few cases of me-too is neither the best occasion nor the best provocation. We have seen the reaction of society in the case of Nirbhaya episode. Nothing seems to have changed since, unfortunately it seems to have worsened. Similar cases have probably increased. We probably are not asking the right questions nor acting at the right level or on right targets.

#MeToo and similar cases have been happening all along and people in society have known it. Legal remedy is just one of the remedies, which may not be the best one or the most effective one. However, there should be systematic engagement of the society to prevent or protect against such and similar unfortunate situations. Sometimes, the converse may also be happening.

There is a need to deliberate upon this complex topic and develop an Indian Psychiatric Society/Indian psychiatrists , long-term plan of action.

This is the expected outcome of the Symposium to be organised by Prof.P.K.Singh, Professor of Psychiatry, Patna and Prof. R.Srinivasa Murthy, Professor of Psychiatry(retd), Bangalore.

SYMPOSIUM 121. Cancer and Emotional Health-Professional/Personal Observations

Coordinator: R. Srinivasa Murthy, Bangalore.

Invited Speakers:

1. Dr.Prakash Behere, Kolhapur. ACCEPTED

2. Dr.Sudhir Khandelwal, New Delhi. ACCEPTED

3. Dr.A.K.Agarwaal, Lucknow. Pending

4. Dr.Shubangi Parker, Mumbai ACCEPTED

5. Dr.Lakshmi Vijayakumar, Chennai. ACCEPTED

6. Dr.R.Srinivasa Murthy, Bangalore. ACCEPTED

Cancer always disrupts the lives of those diagnosed with cancer and their families.

There is evidence of more than double the prevalence rate of emotional health problems in those diagnosed with cancer. There is strong evidence that providing emotional support not only decreases distress, improves quality of life and better survival.

Many of mental health professionals have the experience of living with cancer or being a caregiver.

What are the lessons of these experiences both for the organisation of mental health are for persons diagnosed with cancer and their caregivers as well as advance of mental health aspects cancer.

The presentations will cover the following aspects of cancer and emotional health:

1. Personal experiences as a caner survivor;
2. Experience of providing emotional health care as a caregiver for a family member;
3. Implications of cancer care for mental health and destigmatisation of mental health care.

EXPECTED OUTCOME:

Findings ways to make emotional health care an integral part of cancer care can have benefits to persons living with a diagnosis of cancer, their families and for the advancement of acceptance of mental health in the community.

SYMPOSIUM 122. Revisiting Treatment Resistant Depression

Name of Presenting Author: Dr. Krishna Patel
Affiliation of Presenting Author: Assistant Professor, Dept. of Psychiatry, C.U. Shah Medical College and hospital, Surendranagar
Co-Author Name 1: Dr. Vijay Nagecha

AIM OF THE SYMPOSIUM:

Make the mental health professionals aware about the new developments in the management of the treatment resistant depression.

CORE CONTENT:

There seems to be no single common definition being followed for treatment resistant depression encountered very commonly around the globe. It is a serious condition that needs immediate attention for depression is one of the leading causes of disability, affecting 300 million people worldwide as per WHO report 2018. 20 – 40% of these fail to respond to first line treatment of antidepressant drugs and up to 15% to multiple antidepressant drugs.

Today we practice evidence based medicine with more and more database being generated with the ongoing researches around the world. This helps us to reach to newer conclusions to face this age old problem of resistance to treatment in the most common mental disorder encountered in our clinical practice. These data are now being systematically reviewed and continuous efforts are being made to come to a common algorithm that can be followed to achieve a maximum result i.e. to lessen the ultimate number of patients suffering from treatment resistant depression.

Currently six staging methods are being employed to manage the case of treatment resistant depression:

1) Thase and Rush Model (TRM) (Most widely accepted)
2) Massachusetts General Hospital staging method (MGH-S)
3) European Method of Staging
4) Staging model based on depression subtypes on a dimension of severity (psychotic, melancholic and non-melancholic)
5) Maudsley staging method (MSM)
6) The Dutch Measure for quantification of Treatment Resistance in Depression (DM-TRD)

CONCLUSION:

This symposium shall open up vision to look at treatment resistant depression with totally a novel aspect and integrate all the possible perspectives to come to a final decision on case to case basis for our patients suffering from depression chronically though being treated in our day to day clinical practice

SYMPOSIUM 123. TREATMENT RESISTANT DEPRESSION

Madhukar H. Trivedi, MD

There is increasing evidence that resistance to current antidepressant treatments is very common and is also a major cause of morbidity and mortality in depression. And yet there is no consensus as to its definition, classification or clinical trial methodology. Historically, treatment resistant depression was defined as failure to respond to multiple treatments used as monotherapy as well as augmentations and combinations. However, recent emphasis on remission as the desired outcome coupled with results from large scale pragmatic clinical trials like the Sequenced Treatment Alternatives to Relieve Depression (STAR*D) and STEP-BD suggest that treatment resistance is best defined on a continuum. Remission rates following the first treatment step are only about 30% followed by an additional remission rate of only about 25% following a second treatment step. Approximately, 25-30% of patients remain symptomatic despite multiple treatment steps. Furthermore, evidence shows that achieving sustained remission is more difficult with high rates of relapse even in those who have remission in the acute phase.

Several factors contribute to the lack of clarity and ill-suited clinical trial methodologies including high placebo response rates, lack of novel pharmacological interventions, heavy dependence on symptomatic volunteers as opposed to "real world" research participants, lack of reliable and replicable clinical and biological markers as well as insufficient emphasis on clear definition of phenotypes.

Five major lines of evidence can guide future trial methodologies: 1) careful recruitment procedures with emphasis on routine clinical populations; 2) precision of diagnoses; 3) minimize placebo response; 4) development of clinical and biomarker based clinical trials and 5) Development of novel treatment approaches like the NMDS Receptor modulators- ketamine, esketamine etc as well as magnetic stimulation.

This presentation will provide a discussion on the definition and prevalence of drug resistance in depression as well recommendations for clinical trials methodology. The presentation will also provide a discussion of practical approaches to assessing treatment resistance.

SYMPOSIUM 124. Biomarkers and Treatment Selection for Depression - A Precision Medicine Approach

Madhukar H. Trivedi, MD

Currently, there are no valid clinical or biological markers to inform treatment selection for depressed patients. Recent evidence suggests that there are several potential biomarkers that may personalize selection amongst antidepressant medications with different mechanisms of action. Recent large studies have used blood-based markers, neuroimaging, and EEG to examine predictors and moderators to treatments for depression. The Combining Medications to Enhance Depression Outcomes (CO-MED) trial included adults with major depressive disorder (MDD) who provided plasma samples and were treated with either escitalopram-plus-placebo, bupropion-plus-escitalopram, or venlafaxine-pus-mirtazapine. Establishing Moderators and Biosignatures of Antidepressant Response in Clinical Care (EMBARC) trial included 296 participants with MDD who were randomized to sertraline (SERT) or placebo (PBO) for 8 weeks, and provided blood, MRI, and EEG data. This presentation will review the recent biomarker results from the Combining Medications to Enhance Depression Outcomes (CO-MED) trial and the Establishing Moderators and Biosignatures of Antidepressant Response in Clinical Care (EMBARC) trial. The presentation will also provide a road map to consider for advancing precision medicine for depression.

SYMPOSIUM 125. Antipsychotic drugs in the management of Depressions

Dr. A. Q. Jilani, **Dr. Anshuman Tiwari; * Dr. Kunwar Vaibhav*

Major depressive disorder is most common type of serious mental illness with high recurrence rate and morbidity. Further, the response rate to first antidepressantoccurs in about two third of patients only. Thus, the complete resolution of all the symptoms may require the use of multiple medications that have different mechanisms of action. The management strategy involves use of single antidepressants to combination of antidepressants along with augmentation and potentiation by other pharmacological agents. Some authors also believe that concurrent treatment with antidepressants and antipsychotic. This may be due to receptor profiles for atypical antipsychotics which also involve regulation of Monoamine, Glutamate, Gamma-Aminobutyricacid (GABA), Cortisol, and Neurotrophicfactors. Hence, many of the atypical antipsychotics are recommended either as monotherapy e.g. Quetiapine,Lurasidone; and others as an adjunctive treatment therapy.

Antipsychotics are also indicated as primary therapeutic agent depending upon clinical profile and course of illness e.g. in the management of treatment resistant depression, depression with psychotic symptoms, bipolar depression, suicidal patients etc.Further, the late onset depression, where melancholic and psychotic symptoms are important phenomenology, often needs atypical antipsychotics as part of management strategy.

In this regard, the presenters will discuss the recent increment in use of antipsychotics in the management of depression under following headings:

1. Pharmacological profile and mechanism of action: Dr. A. Q. Jilani
2. Indications and clinical uses: Dr. Anshuman Tiwari
3. Special cases and open discussion: Dr. Kunwar Vaibhav

Assistant professor, department of Psychiatry, Era's Lucknow Medical college, Lucknow, India, Email: imjilani@gmail.com;Dr. Anshuman Tiwari, Assistant Professor, Department of Psychiatry, SMMH Medical College, Saharanpur, UP, India; Email: anshuman2808@gmail.com; ***Dr. Kunwar Viabhav, Consultant Psychiatrist, Faizabad, India, Email: kunwarfzd@gmail.com.*

SYMPOSIUM 126. Challenge and approach in treating somatic versus psychological symptoms in depression in the working population in India.

Dr Arvind Barad, Dr Sumit Upadhyaya*

Consultant psychiatrist*, department of Psychiatry, S.M.S Medical College, Jaipur.

Worldwide depression is the leading cause of year live with disability. It can affect many aspect of life including social, interpersonal and work also.

In fact, the impact of depression on job performance has been estimated to be greater than chronic conditions such as diabetes mellitus, hypertension, arthritis and back problem.

Although the disability is associated with depression make it difficult to find and keep a job, many people who have had a depressive episode are in the workforces. In 2012 majority of(71%) 25-64 year of age who had major depressive episode in the previous 12 months were employed and they were potentially dealing with interference of depressive symptoms on their ability to do their job. These depression has been associated with both absenteeism and decrease productivity(presenteeism).

Gilbert allan, 1996 has been found that there submissive behavior

associated with number of interpersonal problems especially depression proneness. He has been found the retrospective analysis of depression that the phenomenon of submissive behavior, defeat, shame and entrapment has been associated with depression and this lead to depression and subsequent psychopathology in working population.

SYMPOSIUM 127. ADVANCES IN INFORMATION TECHNOLOGIES AND ITS EMERGING UTILITY IN PSYCHIATRY AND NEUROSCIENCE

PANELIST:

[1]DR. K. ASHOK REDDY, MD., [2]DR. C. RADHAKANTH, MD., [3]DR. PRAVEEN KHAIRKAR, MD

AFFILIATION:

[1]PROFESSOR & HEAD, DEPARTMENT OF PSYCHIATRY, SVS MEDICAL COLLEGE, MEHBOOBNAGAR, TELANGANA STATE, INDIA Email: kashokreddy60@gmail.com

[2]PROFESSOR & HEAD, DEPARTMENT OF PSYCHIATRY, NRI INSTITUTE OF MEDICAL SCIENCES, VISAKHAPATNAM, ANDHRA PRADESH, INDIA Email: radhakanthc@gmail.com

[3]PROFESSOR & HEAD, DEPARTMENT OF PSYCHIATRY, KAMINENI INSTITUTE OF MEDICAL SCIENCES, NARKETPALLY, SREEPURAM, NALGONDA, TELANGANA STATE, INDIA Email: Praveen.khairkar280@gmail.com

CONSTRUCT OF SYMPOSIUM

INFORMATION TECHNOLOGY HAS BECOME THE STRONGEST TOOL FOR CHANGING THE WAY WE THINK AND LIVE. TECHNOLOGICAL ADVANCES IN LAST 3 DECADES HELPED TREMENDOUSLY TO GLIMSE INTO SEEKING TRUTH, DEVELOPING SCIENTIFIC METHODS FOR REPLICABLE STUDIES AND MADE PSYCHIATRY INTO AN ACCEPTABLE & PROUD NEUROSCIENTIFIC DISCIPLINE. ARTIFICIAL & AMBIENT INTELLIGENCE, ROBOTICS, AFFECTIVE COMPUTING, HUMAN MACHINE SYMBIOSIS, BIOELECTRONICS, COMPUTER-BRAIN-INTERACTIONS AND QUANTUM COMPUTING ARE PHENOMENAL SHIFTS IN COGNITIVE MODELS OF NEUROSCIENCE. FURTHER, EMPIRICAL EVIDENCE REFLECTS THE EMERGING UTILITIES OF TECHNOLOGICAL EXPLOSION IN DIAGNOSTIC MARKERS AND TREATMENT MODALITIES IN MANY PSYCHIATRIC DISORDERS WHICH HAS THE POWER TO CHANGE TOMORROW.

THIS SYMPOSIUM IS ABOUT GENUINE PROGRESS OF SCIENTIFIC TECHNOLOGY THAT IS ALL SET TO MAKE PARADIGMAL SHIFT IN THE WAY PSYCHIATRY IS PERCEIVED AND PRACTICED GLOBALLY. THREE SPEAKERS HAVE CHOSEN THE FOLLOWING TITLES TO SUBMIT TO ANYTHING ELSE BUT TO TECHNOLOGICAL COMPLEX EXISTENCE IN THE PRESENT & FUTURE OF PSYCHIATRY TO PRODUCE RICH TAPISTRY & UNITARY PERSPECTIVE.

TITLE OF EACH SPEAKER

1. INFORMATION & TECHNOLOGY IN PSYCHIATRY: PAST, PRESENT AND FUTURE
   BY:-DR. K. ASHOK REDDY, MD
2. ARTIFICIAL INTELLIGENCE Vs HUMAN INTELLIGENCE-A BIO-ELECTRO-MECHANICAL MODEL OF DEPRESSION Vs BIO-PSYCHO-SOCIAL MODEL
   BY:-DR. C. RADHAKANTH, MD
3. EMPIRICAL EXISTENCE OF TECHNOLOGICAL ADVANCES EMERGING AS BIOMARKERS IN PSYCHIATRY & NEUROSCIENCE: THE LAST MARBLE OUT OF JAR
   BY:-DR. PRAVEEN KHAIRKAR, MD

SYMPOSIUM 128. Undergraduate psychiatry education in India-Current challenges and the ways forward

Suhas Chandran [1], Johnson Pradeep [2], Priya Sreedaran [2]

1-Senior Resident, 2- Associate Professor

Department of Psychiatry,
St. John's medical College Hospital,
St. John's National Academy of Health Sciences, Bangalore

Background

Training undergraduates in the field of psychiatry can be considered as one of the most significant pathways to improve mental health services in our country. India has a large deficit of psychiatrists with just 0.3 for 100,000 populations, as mentioned in world mental health atlas 2014. To address this challenge, we may have to look for solutions that enable us to attract medical students to the subject of psychiatry as well as improvise on existing curricular methods to build psychiatric knowledge and skills in these students. We present a tripartite model to accomplish this.

Methods

1. Training the teachers of psychiatry- The practice of psychiatry has evolved expeditiously in the last 20-30 years and the teaching of clinical skills has had to adapt to several changes. It used to be assumed that good clinicians and good researchers would automatically be good teachers, but such hypothesis no longer hold true and doctors are increasingly being called on to train as teachers. The teaching of psychiatric skills to medical students is a skill in itself and avenues to advance these competencies will be discussed.
2. Facilitating curricular changes- Psychiatry is currently at its crossroads and there is an immediate need to implement & augment existing MCI recommended curricula for undergraduate psychiatry. At the same time it needs to be ensured that each teaching institute has the basic teaching infrastructure in psychiatry and utilizes assessment methods that are become focused, objective, and reliable. The need and methods to integrate postgraduates into undergraduate training, use of OSCE'S , Modified objective structured long examination review's, micro seminars and flipped class room models among others will be elaborated.
3. Using entertainment and media to innovate undergraduate psychiatry- Our current generation of medical undergraduates can be regarded as 'Digital natives' i.e individuals who have grown up with digital entertainment and we should channelize this disposition to pique the undergraduate student's interest in psychiatry. If the long term goal is to develop psychiatry as a compulsory subject for undergraduates, innovative and unconventional tools will have to be made use of to effectively achieve this. Some of these methods include use of gamification, movies, Role play, Film making, Storytelling, Simulation based learning, Art drama, photography, music etc.

SYMPOSIUM 129. Stigma: A Major barrier to access mental health services

Speakers- Dr Ashok Kumar[1], Dr Asma J A Batcha[2], Dr Navratan Suthar[3]

[1]Assistant Professor, Department of psychiatry, Dr S N Medical College, Jodhpur, [2] Assistant Professor, Department of Psychiatry, Shivganga Medical College, Shivgangai, Tamilnadu. [3]Assistant professor, Government Medical College, Barmer, Rajasthan

Subsections

Introduction- Dr Ashok Kumar

Stigma toward mental illness- Dr Asma J A Batcha

The way forward- Dr Navratan Suthar

Mental health problems are leading cause of morbidity across the world. According to World Health Organization (WHO) estimates about 450 Million individuals suffer with one or another psychiatric illness. 80% of these mental health sufferers fail to receive any help even after one

year of illness. The major treatment gap is attributed to stigma and bias toward mental illness. Simple ignorance and lack of knowledge is most important contributor to failure to access mental health services. Lack of knowledge among policy makers and politicians contributes in form of lack of available services. Studies suggest that by simply educating the public can bring out dramatic change in accessibility and availability of mental health services.

SYMPOSIUM 130. Abstract for symposium-'Suicide among medical professionals – Are We Doing Enough To Save Our Colleagues '

Kishor M, Dushad Ram, SuhasChandran

The medical profession has one of the highest risks of death by suicide among all other professions. Incidence of suicide among medical professionals including students as well as doctors is showing an alarming upward trend. Literature suggests that nearly 12% of males and 19.5% of females in the medical profession suffer from depression, and it is even more common among medical students. About 15-30% of students and residents screen positive for depression. Studies also show that 1 in 16 trainees report suicidal ideation. Male physicians have a 70 per cent higher suicide rate than males in other professions; and female physicians have a 400 per cent higher rate than females in other professions.

The most common psychiatric diagnoses among physicians with completed suicides are alleged to be depression, bipolar disease and substance abuse.Long working hours, taxing medical training, violence against doctors, and stress of saving lives, are some major factors that are pushing doctors to the breaking point. More profession-specific factors are likely to provide an explanation for the elevated suicide rate, especially the knowledge and availability of the means of suicide. Certain issues may render suicide prevention in doctors even more of a challenge than in others.

Helpseeking is still a taboo among doctors. There is need for equipping medical professionals with skills of stress management and mitigate stigma associated with mental disorders so that at the time of the need, the professionals can seek help.Given the current climate of healthcare and the seemingly unending stressors in the practice of medicine, we doctors must be mindful of ourselves and our colleagues. In this symposium, we will present with a focus on epidemiology, aetiology, preventive and management strategies in suicide among doctors.

Keywords: Suicide, Mental Health Issues Among Doctors, Medical Profession

SYMPOSIUM 131. Law, Ethics and Military Psychiatry

Chairpersons :

Surg Commodore Kaushik Chatterjee, Consultant Psychiatry INHS Asvini, Mumb

Dr (Mrs) Kalpana Srivastava, Scientist G, Clinical PSychologist , AFMC, Pune

Speaker 1: Col Harpreet Singh, Senior Adviser (Psychiatry) CH SC

Topic : Military Psychiatry and Law : Journey down the ages

Speaker 2 : Col V S Chauhan, Associate Prof (Psychiatry) AFMC

Topic : Involuntary Hospitalization under MHA 2017 : Implications for Armed Forces

Speaker 3 : Lt Col Prateek Yadav, Classified Specialist (Psychiatry) 151 BH C/0 99 APO : Topic : Ethics in Military Psychiatry : On whose side should be the military psychiatrists ?

Law refers to systematic set of universally accepted rules and regulation created by an appropriate authority such as government, which may be regional, national or international. It assists in governing actions and behaviour of the members of a particular region or community for whom laws can be binding. Ethics on the other hand are the moral principles that help in deciding between right and wrong. Medical profession is strictly governed by both laws and ethics and is binding on medical professionals for discharging their duties. Armed Forces across the globe devise their own rules in order to ensure iscipline and to maintain military ethos and values. Generally they are tougher and often impinge on personal liberties and rights. Mentally sick patients occasionally experience violation of their rights owing to their lack of legal competence and in Armed Forces it can even be a matter of losing their profession. Therefore, Military psychiatry offers a unique blend of civil and military laws besides medical ethics. Military mental health providers occasionally find themselves in a bind when rights and roles of uniformed personnel get compromised on account of their mental illness. Persons with Disability Act 1995 and Mental Health Act 2017 have significantly impacted practice of military psychiatry in the recent past and many areas still need scientific deliberations. Military Psychiatry Symposium will offer a healthy discussion on the subject matter and proceedings will provide valuable inputs to the fraternity as a whole. Symposium will be in the form of 3 lectures followed by a panel discussion

SYMPOSIUM 132. Title:Passive euthanasia in India and challenges ahead for a psychiatrist

Presenting author and postal address: Dr Ajay Kumar, Institute of Mental Health and Hospital, Agra

Contributors/Presenters:

1. Ajay Kumar[a] Assistant professor, email: ajaypgimer2016@gmail.com
2. Aseem Mehra[b] Assistant professor, email: aseemmehra86@gmail.com
3. Aditya Somani[c] , Deputy Medical Superintendent, email: dr.adityasomani@gmail.com

[a]Institute of Mental Health and Hospital, Agra; [b]Postgraduate Institute of Medical Education & Research, Chandigarh; [c]Mental Health Institute, Chandigarh;

Title:Passive euthanasia in India and challenges ahead for a psychiatrist

Introduction: Currently euthanasia is legally permitted in Netherlands, Luxembourg, Switzerland, Belgium and some other countries including some states of USA. Canada has introduced a federal law allowing medical aid in dying.Victoria has become the first state in Australia to legalise voluntary euthanasia from mid-2019. Though Recently, India also joined the league by legalization of passive euthanasia after landmark decision of Supreme Court.

Current Position: Passive euthanasia is legalized in India under the preview of fundamental rights. On this Medical Council of India (MCI) also has clear-cut guideline on this subject in regulation 6.7 of the Indian Medical Council (Professional Conduct, Etiquette and Ethics) Regulations 2002, which explicitly prohibits doctors from practicing euthanasia top of it our socio-cultural and religious believes are different from western countries which pose new challenges to the psychiatrist.

Challenges Ahead: After the ligalisation of passive euthanasia, the psychiatrist need to be more active, sensitive, understanding of culutre with more responsibility of a psychiatrist has increased.

Keywords: euthanasia, passive euthanasia, psychiatry

SYMPOSIUM 133. Title: Foretelling dementia: from biomarkers to clinical implications.

Presenters:

Dr. Migita M. D'Cruz

MBBS, MD Psychiatry(NIMHANS)

I Year DM Geriatric Psychiatry, National Institute of Mental Health and Neurosciences (NIMHANS).

Dr. Praveen SR

MBBS, MD Psychiatry(NIMHANS)

Clinical Post-Doctoral Fellow, Center for Brain Research, Indian Institute of Science.

Dr. Abhiram PN

MBBS, MD Psychiatry(NIMHANS)

Clinical Post-Doctoral Fellow, Center for Brain Research, Indian Institute of Science.

Dr. Ankitha M Shenoy

Junior Resident, Department of Psychiatry, National Institute of Mental Health and Neurosciences (NIMHANS).

Correspondence:

Dr. Abhiram PN

MBBS, MD Psychiatry(NIMHANS)

Clinical Post-Doctoral Fellow,

Center for Brain Research,

SID Complex, Indian Institute of Science

Bangalore – 560012

Phone: + 91 9481338686

Email: abhirampn@iisc.ac.in

Title: Foretelling dementia: From biomarkers to clinical implications.

In a country with a projected percentage of the elderly population of 20% by 2050, dementia seems an inevitable risk factor of aging, which calls for early detection and management. Imaging, Neuro-psychological profile, Cerebrospinal fluid, and blood-based biomarkers have the potential to improve the diagnostic accuracy. Biomarkers are being incorporated into diagnostic criteria. Not only do they enhance insights into the pathophysiology, but also aid in further research which in-turn translates into clinical management. This is an area of evolving interest with numerous biomarkers at various stages of research. This symposium aims at discussing the following aspects:

1. Introduction to various biomarkers in dementia
2. Imaging biomarkers
3. CSF and blood-based biomarkers
4. Neuropsychological markers
5. Clinical implications.

SYMPOSIUM 134. Title: Health Insurance for Mental Disorders in India: Current Position and Challenges Ahead

Presenting/Corresponding author and postal address: Dr. Aditya Somani, Deputy Medical Superintendent, Mental Health Institute, Sector 32, Chandigarh 160030 India email: dr.adityasomani@gmail.com mobile no.: 9592916918

Contributors/Presenters:

4. Akhilesh Sharma[a], Associate Professor, email: drakhileshsharma@gmail.com
5. Aditya Somani[b], Deputy Medical Superintendent, email: dr.adityasomani@gmail.com
6. Ajay Kumar[c], Assistant Professor, email: ajaypgimer2016@gmail.com
7. Puneet Khanduja[d], Manager, email: puneet.khanduja@microsave.net

[a]Postgraduate Institute of Medical Education & Research, Chandigarh; [b]Mental Health Institute, Chandigarh; [c]Institute of Mental Health and Hospital, Agra; [d]Microsave, Delhi.

Introduction: Traditionally, health insurance/mediclaim policies in India did not use to pay for cost of treatment towards psychiatric/ psychosomatic disorders. However, as Mental Healthcare Act 2017 has come into force, Insurance Regulatory and Development Authority of India (IRDAI), apex regulator and licensing authority for insurance companies in India has made it mandatory for all insurance companies to make provision for treatment of mental illnesses on same basis as is available for physical illnesses.

Current Position: Currently, common health insurance/mediclaim policies cover only for in-patient care, along with related outpatient expenses for the same illness. The duration of outpatient cover may vary from 15-30 days of pre-hospitalization and 30-60 days of post-hospitalization period. A minimum 24-hours' stay in hospital is mandatory to avail benefit of mediclaim except for few named day-care procedures. Additionally, there is a waiting period ranging from 1-5 years for certain illnesses before they ae payable, and there are certain set of illnesses like congenital disorders, sexually transitted disease, substance use, etc. which are not payable ever. Although the above mentioed order of IRDAI was issued on 16th Aug 2018, none of the public/ private sector insurance companies have made approriate changes in their policy wordings to include cover for psychiatric disorders.

Challenges Ahead: Mental health professionals need to keep a strict vigilance on rules/regulations/inclusions/exclusions/sub-limits etc. likely to be drawn by insurance companies for mental illnesses. As majority of psychiatric disorders that need hospitalization are severe, often chronic/lifelong & disabling conditions, our patients would need more comprehensive long term outpatient cover and facility for psychotherapy & rehabilitative services. We need to keep a check that all deseving patients, including patients of substance use disorders are included, there is no unfair loading on premiums and adequate/ compehensive cover for all-inclusive care of psychiatric disorders is provided.

Keywords: Heath insurance; Mediclaim; Mental disorders; Psychiatric Disorders

SYMPOSIUM 135. Building LGBTQ sensitivity among Psychiatrists: The role of IPC sec.377 decriminalization and a transgender policy.

Name of Presenting Author: Dr.Sheena. G.Soman
Affiliation of Presenting Author: Mental Health Center,Trivandrum
Co-Author Name 1: Dr.Jayaprakash P,
Co-Author Name 2: Dr.Archana N U
Co-Author Name 3: Dr.Jithin T Joseph
Co-Author Name 4: Dr.Jayaprakashan K P

The homosexual and transgender community comprising gays, lesbians, bisexuals, transgenders and queers known as LGBTQ had a land mark judgement in their favour when IPC sec.377 on unnatural offences was decriminalised.History and sociocultural religious evolution shows varied responses in time when addressing the minorities among sexual orientation and gender identity conditions. Any deviation in sexual and gender expressions which did not go the 'natural' way were deemed an abomination,as an act of criminality and later as a pathology.Though Homosexuality was no longer a disorder in classification systems from 1970s India held on to conservative and punitive stands till the drop of IPC sec.377 on Sep 6,2018.Only Kerala and Tamil Nadu have an existing Transgender Policy.The current medical curriculum addresses the LGBT issues scarcely and the training of psychiatry residents is limited to few hours.Clinical settings which are LGBT sensitive are scarce.The heteronormative attitude and lack of affirmative clinical practices render help seeking of this community minimal.In this wake,psychiatrists should not limit oneself as a gatekeeper,but assume multiple therapeutic roles to influence the coming out process,preserve mental health and provide therapeutic holding environments for conflict resolution. Objective:Enhancing sensitivity and advocate affirmative practices while addressing LGBT.Methods: Symposium on Historical and scientific evolution of sexual orientation and gender identity(SOGI) constructs.Taxonomical and nosologic classification of SOGI.LGBT

affirmative practices and role of sexual orientation conversion efforts(SOCE).The role of societal changes and policy development in LGBTQ horizon. Conclusions: Post graduateTraining is required to reduce antiLGBT attitudes.Establish Sexual orientation and Gender clinic and restrict reparative practices in clinical settings. Need for LGBT sensitive policies and longitudinal studies.

SYMPOSIUM 136. Title: Mental Health Literacy in India: Concept, Various Perspectives and Way Forward

This symposium will be divided into the followings 3 subsections

1. To understand what is MHL and Indian Contribution: Dr. Bhaveshkumar M. Lakdawala

2. School Mental Health: Dr Syeda Ruksheda

3. Research and work on MHL in SUD: Dr. Parlin Dadhaniya

4. MHL in Suicide and way forward: Dr. Naresh Nebhinani

Objectives: The term "Mental Health Literacy" (MHL) refers to knowledge and beliefs about mental disorders which aid their recognition, management or prevention. The objectives of this symposium are to address what is MHL and Indian research and Contribution; MHL for school teachers & parents; for persons having Substance Use Disorder (SUD); research & work on MHL in Suicide and how we can improve MHL so that society at large will be benefited.

Description: Mental health literacy includes the ability to recognize specific disorders; knowing how to seek mental health information; knowledge of risk factors and causes, of self-treatments, and of professional help available; and attitudes that promote recognition and appropriate help-seeking.

Many studies have shown that poor knowledge and negative & stigmatized attitudes towards mental illness and mentally ill are widespread. It is even more seen in school teachers & parents, for persons suffering from SUD and Suicide related issues. Many studies report that stigma is universal and doesn't spare even various health professionals including our own colleagues of other branches, nursing personnel and health workers. Stigma and discrimination result in the underuse of mental health services. The main strategies for addressing psychiatric stigma focus on protest, contact and education.

Key Words: Mental Health Literacy, School, SUD, Suicide, India

Speakers Details: Dr. Bhaveshkumar M. Lakdawala, Professor and Head, Dept. of Psychiatry, AMC-MET Medical College and Sheth L.G. General Hospital, Ahmedabad, Gujarat, India. LF-02154; E mail: dr_bmlakdawala@yahoo.co.in; M: +919687284967

Dr. Syeda Ruksheda, Psychiatrist, Trellis Family Center, Mumbai, India. LF-18135; E mail: ruksheda@gmail.com; M: +919820033095

Dr. Parlin Dadhaniya, 3rd Year Resident Doctor, Dept. of Psychiatry, AMC-MET Medical College and Sheth L.G. General Hospital, Ahmedabad, Gujarat, India. LOM/P09/17; E mail: parlin30dadhania@yahoo.in; M: +919427371747

Dr. Naresh Nebhinani, Associate Professor, Dept. of Psychiatry, AIIMS, Jodhpur, Rajasthan, India. LF-14120; E mail: drnaresh_pgi@yahoo.com ; M: +918003996882

SYMPOSIUM 137. The history of psychiatry, the mental hospitals and the city of Lucknow.

Name of Presenting Author: Alok Sarin

Affiliation of Presenting Author: Sitaram Bhartia Institute of Science and Research

Co-Author Name 1: Sanjeev Jain

Co-Author Name 2: Pratima Murthy

Every generation, in every society, across millennia, has struggled with defining the limits of reason and behavior, and the boundaries of insanity. We will attempt trace this ebb and flow of ideas and opinions in the care of the mentally ill in India, over the past 200 years. We will draw on archives, hospital records, and biographies to trace the development of institutional care, pharmacology, social psychiatry and neurobiology in the recent past. Of special interest here may be some early developments in psycho-pharmacology that happened in the city of Lucknow. This will allow us to have a better understanding of the nature of the progress that seems to have been made, and also shine a light on the persisting concerns about providing comprehensive care for the mentally ill.

SYMPOSIUM 138. Title: PHYSICIANS WELLNESS

PRESENTERS: P.K. Dalal; Prabhat Sitholey; Rudra Prakash; Kalpana Prasad; and Meera Sethi

ABSTRACT: Physicians wellness is one of the most neglected areas of medicine. Lack of wellness has varied manifestations – impairment, burn out, addictions, boundary violations, other ethical and legal troubles, and outright debilitating psychiatric illnesses, including suicide. The speakers highlight scarcity of treatment resources and other barriers in accessing therapeutic services across life span of physicians in India. A center of excellence for research and treatment of physicians is proposed.

SYMPOSIUM 139. TITLE- HOMOSEXUALITY EVOLUTION OF CONCEPT AND CURRENT STATUS

Speaker details:

1. *Evolution of nosology- Dr Jai Singh*
2. *Evolution in legal framework- Dr Anamika Das*
3. *Current status in India- Dr Pritha Roy*
4. *Role of psychiatrist- Dr Lavkush Kumar*
5. *Discussion and debate- Dr Erika Pahuja*

Sexuality is not all about physical sex or gaining pleasure from opposite sex gender. It can be defined in many dimensions including gender identity, sexual identity, sexual orientation and sexual behavior. Sexual behavior has been classified according to emotional and romantic attachments. It can be among same gender people -homosexual, opposite gender -hetero-sexual or both genders - bisexual. Before 1973 homosexuality was classified as psychiatric illness according to DSM when American Psychiatric Association removed it. It was subsequently removed from ICD-10(1992). The legal framework also considered it as a punishable offence. With modernization of the society, there was a change of perspective and a huge uproar among homosexuals regarding its decriminalisation. According to section 377 IPC, which was introduced by Lord Macaulay in 1860 in British India, homosexuality used to come under unnatural sexual offences till recent times. Gradually there were changes globally in law books and homosexuality was being decriminalized all over. There were hues and cry in the Indian homosexual population to follow the same. Finally, in September 2018, after a long wait, homosexuality has been decriminalized. Though it does not belong to any psychiatric nosology presently, there is a high prevalence of psychiatric comorbidity in this population. This needs to be addressed adequately. There still remains a huge debate on this entity which requires discussion.

SYMPOSIUM 140. TITLE: Medically unexplained symptoms (MUS): Pathways of care and Challenges of the enigma

SPEAKERS:

Dr Debanjan Banerjee; Senior Resident of Geriatric Psychiatry; NIMHANS; Bangalore.

Dr Vishwas Yadawad; Senior Resident of Psychiatry; NIMHANS; Bangalore.

Dr Vishukumar HS; Junior Resident of Psychiatry; NIMHANS, Bangalore

Dr. Sachin N., Junior Resident of Psychiatry; NIMHANS, Bangalore

OUTLINE:

The mind body dualism has been debated for centuries across various cultures by artists, philosophers, spiritual aspirants etc. However, the dynamic interplay of the mind and the body in health and disease has been recognized in psychiatry. Patients suffering from medially unexplained symptoms have been seen as somatizers, malingerers, persons with abnormal illness behaviour and weak ego strength etc. However medical fraternity continues to struggle in providing adequate cure for these individuals. On the other hand, wanted or not: this population would mostly visit the psychiatrist's chamber.

Keeping this in the background, this symposium attempts to critically evaluate the validity of the construct called 'medically unexplained symptoms' and take the vantage points of both; the mental health professional and a general/primary care physician as the professionals who can best manage medically unexplained symptoms. It also aims to de-mystify the construct

of MUS and provide consensus on practice guidelines for the same.

The tentative topics are as follows:

1. "I am sick more than my doctors think": The construct, nosology and prevailing practices in the management of MUS.
2. "Care over the elusive cure": Why MUS is best managed by a Mental Health Professional.
3. "Seek and ye shall find": Why MUS is best managed by a non-psychiatrist physician.
4. "Decoding the enigma": Summarizing the evidence and future directions.

SYMPOSIUM 141. Title: Metabolic syndrome, Circadian disruption, and Obstructive sleep apnea in patients with Schizophrenia

Presenters:

1. Naresh Nebhinani, Associate Professor, Department of Psychiatry, All India Institute of Medical Sciences, Jodhpur, Rajasthan

2. Navendu Gaur, Consultant Psychiatrist, Ajmer

3. Ravi Gupta, Additional Professor, Department of Psychiatry, All India Institute of Medical Sciences, Rishikesh

People with schizophrenia have high mortality rate and shortened life expectancy for 10-20 years than the general population. Its major cause is physical comorbidities, predominantly cardiovascular disorders. Metabolic syndrome (MetS) may partly mediate the association, as the subjects with MetS are three times more likely to develop myocardial infarction or stroke. Compared to the healthy population Patients with schizophrenia suffer from more metabolic (MetS prevalence up to 68%) or sleep problems (around 45%). Illness variables, lifestyle factors (diet, activity and substance abuse etc.) and antipsychotics contribute to obesity of patients, which influences their sleep quality. Sleep-wake disturbance, resulting in chronic sleep loss has been associated with increased risk for weight gain, obesity, MetS, OSA and cardiac disorders. Metabolic abnormalities and sleep disturbances in schizophrenia are interrelated and further affecting their drug compliance, quality of life, illness course, outcome and prognosis.

Outline of symposium:

1. Metabolic syndrome in Schizophrenia (Naresh Nebhinani)
2. Circadian disruption in Schizophrenia (Navendu Gaur)
3. OSA in Schizophrenia & its association with metabolic syndrome (Ravi Gupta)

SYMPOSIUM 142. Sexual Dysfunction with SSRIs and management strategies

*Dr. Ashish Srivastava LF01226***

*Dr. Saumitra Nemlekar LOM/S28/13**

*Dr. Anil Rane** LF*

*Dr. Wenona Fernandes LF 2300112018***

**Department of Psychiatry, Institute of Psychiatry and Human Behavior, Goa & *Department of Psychiatry, North District Hospital, Mapusa

Sexual dysfunction is a known adverse effect to selective serotonin reuptake inhibitors (SSRIs).. Sexual dysfunction can have significant impact on the person's quality of life, quality of relationships, self-esteem, and recovery. It has also been noted in nearly 40-61% of patients. This may increase the risk for discontinuation and non - adherence to antidepressant pharmacotherapy

Some clinical scenarios that arise out of the same includes managing noncompliance; shifting from the SSRI to other classes and alter the pharmacological profile with add on medications for the problems. Patient education on the sexual side-effect profiles of SSRIs is critical to medication adherence, resolution of depressive symptoms, and improving quality of life. Delaying this discussion may result in confusion and distrust of pharmacotherapies and health care providers, making it more difficult to adjust and recommend medications later on. Given the prevalence of sexual dysfunction in subjects with depression, it is necessary for health care providers to give a full assessment and explanation of potential side effects of antidepressant pharmacotherapy. Use of Scales such as International Index of Erectile Function scale (IIEF) can be used to quantify the dysfunction. .Current literature supports use of SSRIs at lowest dose, alternate medications to SSRIs, augmentation with PDE-5 inhibitors

The focus of this session shall be to explore the incidence, pathophysiology, and treatment of antidepressant-associated sexual dysfunction

SYMPOSIUM 143. Co-Morbidity of Personality Disorders in Patients with Substance Use Disorder and Therapeutic Pessimism: Clinical Folklore or Clinical Reality?

Dr. Prabhoo Dayal, National Drug Dependence Treatment Centre, AIIMS, New Delhi. drpd@rediffmail.com

Dr Om Sai Ramesh V, Lady Harding Medical College, New Delhi. omraksha@gmail.com

Dr. Shiv Prasad, Lady Harding Medical College, New Delhi. drspkhedar@gmail.com

Dr G S Kaloiya, National Drug Dependence Treatment Centre, AIIMS, New Delhi. gkaloiya@gmail.com

Substance Use Disorder is a chronic relapsing illness. Mental health professionals struggle to manage due to its chronic and relapsing nature. Co-morbidity of personality disorders further worsen the situation and one of the reasons of non treatment seeking behaviour hence, results in poor prognosis. Persons with substance use disorders have a high prevalence of co-morbid personality disorders. The symposium shall present the overview of co-morbid personality disorders among patients with substance use disorders. Additionally, it shall focus on the issues related to diagnosis and management of co-morbidity of personality disorders among persons with substance use disorders.

Presentation-1: Overview: This presentation shall focus on the overview of co-morbid personality disorders among patients with substance use disorders. It shall also present epidemiology, implications, especially clinical of this co-morbidity. -Dr Prabhoo Dayal

Presentation-2: Relationship & Diagnostic issues between Substance use disorders and personality disorders: This presentation will

highlight the relationship between SUD and Personality Disorders. How this relationship make this illness more complicated in terms of its understanding, symptomatology and treatment. Diagnostic issues & Clinical implications will also be discussed. -Dr Om Sai Ramesh V
Presentation-3: Assessment & Evidence based Pharmacotherapy: This presentation shall discuss about assessment of personality disorders and pharmacotherapy in substance use disorders. The presentation shall present a framework of evidence based pharmacological management of the co-morbid personality disorders and role of pharmacotherapy in the same. Recent evidence on this theme shall be discussed. -Dr. Shiv Prasad
Presentation-4: Barriers & Evidence based Psychosocial Interventions: This presentation shall highlight different barriers to comprehensive treatment of co-morbidity in SUD. The presentation shall present an overview of the evidence based psychosocial interventions for management of the same. -Dr G S Kaloiya
The presentations will be summarized by Dr Prabhoo Dayal

SYMPOSIUM 144. Legalization of cannabis: Where do we stand and where to go from here?

Speaker 1 (Aniruddha Basu)

Speaker 2 (Abhishek Ghosh)

Speaker 3 (Siddharth Arya)

With an overwhelming figure of 192 million users, cannabis is certainly the most commonly misused illicit drug globally. Moreover, this number is showing an increasing trend. Although the UN conventions call for the member states to criminalize cannabis use, several countries have questioned the effectiveness of this expensive policy. These countries have tried out a range of cannabis policies, from complete decriminalization to quasi-legalization (either or recreational and medicinal use).
Speaker 1 (Aniruddha Basu): Cannabis the herb: boon or bane?
National Academies of Sciences, Engineering, and Medicine has found *substantial and conclusive evidence* for the role of medicinal cannabis to alleviate chronic pain, chemotherapy-associated nausea-vomiting, and spasticity due to multiple sclerosis. However, the quality of evidence has been questioned. Research so far has established the harmful effects of cannabis with reasonable degree of certainty. The link between cannabis and schizophrenia spectrum disorder is well validated through various longitudinal studies. Chronic cannabis use is associated with cognitive impairment, overall intellectual decline, poor educational attainment, and unemployment.
Speaker 2 (Abhishek Ghosh): The current scene of cannabis legalization: chaos or coherence
Several countries and nearly thirty states in the US have legalized the medicinal use of cannabis. Spain, Uruguay, Canada, and the nine states of the US and the District of Columbia have legalized recreational cannabis use. All these are reflective of a dynamic and diverse landscape of cannabis policy, We will discuss the legal stand of India in light of its ambivalent past.
Speaker 3 (Siddharth Arya): Cannabis policy: peeking into the professionals' mind
The medical professionals seem to have divided opinion regarding recreational and medical use of cannabis. The opinion differs across the countries. We will present the results of our survey conducted among the early career psychiatrists of India and compare our findings with the existing literature from elsewhere.

SYMPOSIUM 145. SUBSTANCE ABUSE: A GLOBAL APPROACH WHILE ADDRESSING DISASTER MANAGEMENT

Proposal for Symposium
Chairperson: Dr. H. K. Goswami, Principal cum Chief Superintendant and Professor of Psychiatry, Assam Medical College, Dibrugarh

Speakers and Individual Topics:

1. Dr.Dhrubajyoti Bhuyan : Is Nicotine really a notorious drug of abuse?

2. Dr.Sabita Dihingia : Nicotine and Psychopathology

3. Dr.Prosenjit Ghosh: Nicotine and Psychopathology – the possible link

4. Dr.Shyamanta Das: Nicotine use and psychotropic – drug interaction

Abstract
Disasters are unpredictable events that inevitably punctuates the human existence and challenges the fundamental assumptions of individual and community safety. In addition to causing direct emotional distress through death, destruction of property and damages to infrastructure it also produces long lasting disruptions.
Psychiatric disorders may be precipitated or aggravated following a disaster. Among the behavioral disorders, increase in health risk behaviors such as increased smoking and alcohol consumptions are commonly noted post disaster. Apart from worsening of such high-risk behaviors, people who are already dependent and in harmful pattern of abuse may have difficulty accessing the substance availability following a disaster which may result in withdrawal symptoms. The government and other agencies may also resort to banning addictive substances sales after a disaster considering the social factors and its consequences.
Though overt withdrawal symptoms get medical attention, minor symptoms particularly agitations and sleep disturbances usually are disregarded from medical care. Clubbing with an already anxious state following disaster this can often result in chaotic situations and conflicts in the rehabilitation camps and during the rescue works which in turn affects the efficacy of such works.
Disaster management teams usually focuses on the high-risk groups like the children, women and geriatric age groups who may suffer from psychiatric symptoms following a disaster. However, the symptoms of substance abuse and related disorders in the healthy male groups usually are not given the emphasis it requires due to multiple reasons including the stigma to contact medical professionals by these groups post disaster and the lack of awareness among subjects and health workers.
There are very less studies examining such factors following a disaster. Psychiatric management although focusing more on behavioral symptoms related to disaster aftermath should also be focusing on the major group of less risk groups usually disregarded during a disaster for their substances, patterns of use, availability and control of withdrawal symptoms. Psychiatric team may also work in concordance with government officials in working out a strategic management plan in such situations.

SYMPOSIUM 146. Title: Nicotine and psychopathology: 'gateway' to 'hardening'

Name of Presenting Author: Dr. Dhrubajyoti Bhuyan
Affiliation of Presenting Author: Assam Medical College, Dibrugarh
Co-Author Name 1: Dr. Sabita Dihingia
Co-Author Name 2: Dr. Prosenjit Ghosh
Co-Author Name 3: Dr. Shyamanta Das

Abstract:
Nicotine is a natural ingredient derived from tobacco leaves (Nicotiana tabacum) acting as a botanical insecticide and is the principal tobacco alkaloid. It is one of the common substances of abuse and has been in use since time immemorial. It is used for various reasons and have varied psychological and physical effects as demonstrated in numerous studies. With time we now know more about tobacco- and nicotine-

containing products. Not only much is known about their modes of delivery but also the knowledge about corresponding harm potential has increased tremendously. Its use among psychiatric patients is a major area of concern for clinicians, researchers and health promoters. The rates of tobacco addiction in individuals with psychiatric disorders (mental illness and addiction) continue to remain alarmingly high despite substantial decreases in smoking in the general population More than 60% of schizophrenic patients are current smokers, while 35.5% smoke 20 cigarettes or more per day. Smoking stimulates dopaminergic activity in the brain at least by two distinct mechanisms. First, central nicotinic cholinergic receptors are stimulated by nicotine, resulting in release of dopamine and serotonin. Second, cigarette smoke decreases monoamine oxidase (MAO) activity, thus further increasing brain dopamine concentration, which in turn could contribute to its antidepressant effects. Therefore, smoking increases dopamine concentration by inducing its release and inhibiting its degradation. This symposium focuses on various issues such as nicotine and its relationship with various psychopathologies and impact on effect of psychotropic.

Affiliations:
1. Assistant Professor, Department of Psychiatry, Assam Medical College, Dibrugarh
2. Assistant Professor, Department of Psychiatry, Assam Medical College, Dibrugarh
3. Assistant Professor, Department of Psychiatry, Silchar Medical College, Silchar
4. Assistant Professor, Department of Psychiatry, Gauhati Medical College, Guwahati

SYMPOSIUM 147. Topic: Accessibility and affordability of existing treatment services for Addiction Management

Symposium will be discussed under following subthemes:

*1. Brief outline of existing services : Prof BS Chavan**

*2. Barriers in accessing existing facilities : Dr Subhash Das***

*3. Strategies to improve accessibility and affordability: Dr Ajeet Sidana***

** HoD, ** Associate Professor*

Department of Psychiatry, Govt. Medical College & Hospital, Chandigarh

Substance abuse is a major public health problem in most parts of India. National Mental health Survey (2016) reported that approximately 5 percent of Indian population (excluding nicotine) is suffering from substance use disorders (SUDs). The survey further reported that more than 80 % persons abusing drugs and alcohol had never sought treatment in the past. In addition to patient related factors (poor motivation, stigma, lack of awareness), the shortage of services for substance abuse treatment is another contributor to treatment gap. The treatment facilities for substance use disorder (SUD) are not only inadequate, but these have also been separated from mainstream general health care facilities. The isolation of SUD treatment from the mainstream medical care also denies the delivery of integrated care. There is good research evidence that mild to moderate type of SUD cases can be managed at the outdoor in general health care settings by medical officers and only severe cases might require specialized addiction treatment services. Separation of SUD treatment leads to missed opportunity for early detection, brief timely intervention and early referral. Large proportion of SUD has high co-morbidity of medical problems which might go unrecognized and untreated in specialized care. In addition to limited treatment facilities for SUD, the facilities provided by unorganized and unlicensed sector are not only unethical, but also unaffordable. Gross human right violation inside these facilities discourage large number of patients from seeking treatment even from government run facilities. Thus, there is an urgent need to look at the barriers to seek treatment and to devise innovative method to improve accessibility and affordability.

SYMPOSIUM 148. Title: Substance Use Disorders in Women – Assessment and Management Issues

Dr. Atul. Ambekar[1], Dr. Piyali. Mandal[2], Dr. Ashish. Pakhre[3], Dr. Richa. Tripathi[3]

1- Dr. Atul. Ambekar
Professor, Department of psychiatry and National Drug Dependence Treatment Center, All India Institute of medical sciences, New Delhi, India
2- Dr. Piyali. Mandal
Professor, Department of psychiatry and National Drug Dependence Treatment Center, All India Institute of medical sciences, New Delhi, India
3- Dr. Ashish Pakhre
Senior resident, Department of psychiatry and National Drug Dependence Treatment Center, All India Institute of medical sciences, New Delhi, India
3- Dr. Richa. TRIPATHI
Senior resident, Department of psychiatry and National Drug Dependence Treatment Center, All India Institute of medical sciences, New Delhi, India

Abstract

Gender differences in prevalence of substance use disorders has been observed in general population. Although female sex is considered to be a protective factor for substance use but recent evidence indicates rise in substance use among women. The type, pattern and reason of initiation of substance use is quite different among women than their male counterparts. In women, there is an accelerated progression from staring of substance use to dependence. The rates of internalizing disorders, post-traumatic stress disorder and infectious diseases is also higher in females. Comprehensive knowledge about extent of substance use disorder and its negative influence on other areas of their life is crucial for diagnosis, appropriate management plan and successful outcome. It is important to understand the various psychosocial factors related to substance use as it may affect management process. Pregnancy in women with substance use disorders requires special consideration. Women are also less likely to seek treatment for their substance use disorder due to stigma. Knowledge about various psychosocial factors that affect retention in treatment, compliance, completion of treatment and outcome is needed. Better psychological functioning, good social support and absence of co-occurring disorders favors good outcome. It is also important to address the relationship and responsibility of women with substance use disorder towards their children and family members. The treatment needs of female substance users is also different from male substance users. There is a need to focus and emphasis on gender specific treatment models for women for good outcome.

SYMPOSIUM 149. Leave no one behind: Indian Perspective into the cause, incidence and the preventive measures for violence against women

Mona Nongmeikapam[1]; Pavana S[2]; Shilpa Shri[3]

1. Associate Professor, Department of Psychiatry, Sri Devraj Urs Medical College, Kolar, Karnataka, India
2. Psychiatrist, District Mental Health Programme, Kolar, Karnataka, India
3. Psychiatrist, District Hospital (SNR), Kolar, Karnataka, India

Abstract:

Violence against women and girls is one of the most widespread and devastatingly persistent human rights violations and discrimination in today's world. The staggering numbers is reflected by the need to commemorate 25 November annually as the International Day for the Elimination of Violence against Women by the United Nations. Dr. Mona Nongmeikapam will be presenting an overview of gender violence against women, a world-wide picture and the scenario closer home. 35% of women world-wide have reported having experienced some form of physical or sexual violence. The Indian statistics in 2011reveals: Cruelty by husband and their relatives - 43.4%; molestation - 18.8%; rape - 10.6%; kidnapping and abduction - 15.6%; sexual harassment - 3.7%; dowry death - 3.8%; Immoral Traffic Act - 1.1%; Dowry Prohibition Act - 2.9%; and others - 0.2%,making India one of the most

dangerous country in the world after Afghanistan, Congo, and Pakistan. Dr. Pavana will shed some light on the exisiting preventive measures for Protection of Women against violence under the District Mental Health Programme. The Legislative Provisions as well as the various Organisational infrastructures for gender equality and sensitisation will be discussed at length. Dr. Shilpashri will compare the statistical data of gender violence against women in the Kolar District over the past 3 years and shed light on the current delivery of Psychiatric care. Research shows that achieving gender equality helps in preventing conflict, and high rates of violence against women correlates with outbreaks of conflict, which cannot be reflective of a progressive or developing society. As the UNiTE Campaign stresses, it is imperative that we leave no one behind and work towards a brighter future without violence.

Key Words: Gender violence, sexual harassment, discrimination

SYMPOSIUM 150. SYMPOSIUM- WOMEN MENTAL HEALTH- Different hormonal phases and psychiatric disorders in women- latest research and review

Agarwal S[1], Dahuja M[2], Saxena K[3], Koolwal A[4], Husain K[5].

1. Associate Professor, Netaji Subhash Chandra Bose Subharti Medical College, Swami Vivekanand Subharti University, Meerut (U.P.)
2. Senior Resident, Shaikh-ul-Hind Maulana Mahmood Hasan Medical College, Saharanpur (U.P.)
3. Resident, Shridev Suman Subharti Medical College, Dehradun, Uttarakhand.
4. Fellow in Psychosexual Medicine, JSS medical College, Mysore, Karnataka.
5. Senior Resident, Netaji Subhash Chandra Bose Subharti Medical College, Swami Vivekanand Subharti University, Meerut (U.P.)

Kewords- Hormonal phases, psychiatric disorders, women.

Background- Women's mental health has recently evolved into a very important aspect of psychiatry. Objectives and Methods- We aim to highlight the knowledge pertaining to recent research and review in this area in India. We will cover it under the following topics- Neurobiology and neuroendocrinological basis of psychiatric disorders, Pharmacological challenges while treating them, Substance Abuse in Women, Female Sexual Interest/ Arousal Disorder and Domestic Violence. Women have an added endocrinological involvement in the neurobiology of psychiatric disorders as compared to men. They also suffer from disorders related to hormonal phases and different life cycles (menarche, menstrual cycle, pregnancy, lactation, and menopause).Role of aldosterone and deoxycorticosterone in Pre-menstrual dysphoric disorder [1] and increased androgen levels in post-menopausal syndrome[2] are few such examples. Hence, treatment is also obviously slightly different. Antidepressants like sertraline and fluoxetine and antipsychotics like olanzapine and quetiapine are safer in pregnancy and lactation.[3]Coming to specific psychiatric disorders, there is limited data on substance abuse among women in India. Although, differences in pattern of use, its effects & complications are known.[4]Only Female Sexual Interest/Arousal Disorder among all psychosexual disorders will be discussed here(female Hypoactive Sexual Desire Disorder and Female Sexual Arousal Disorder in DSM-5).Low sexual interest is one of the most common sexual complaints in the females(26 -43%)[5].Sexual partners usually have discrepancy in their preferences for frequency, type and timing of sexual activities[6].Hence, unique management principles are applied in such disorders for the couple. Women also experience Domestic Violence in majority (33% worldwide[7] and 33.5% in India[8]).Conclusion-In this symposium, emphasis on all the above topics will be deliberated upon to get a better insight into women's mental health, assisting in better comprehension and deeper understanding.

SYMPOSIUM 151. PSYCHONEUROENDOCRINOLOGY IN WOMEN DURING MENOPAUSE

Name of Presenting Author: Dr. Krishna Patel
Affiliation of Presenting Author: Assistant Professor, Dept. of Psychiatry, C.U. Shah Medical College and hospital, Surendranagar
Co-Author Name 1: Dr. Vijay Nagecha

AIM OF THE SYMPOSIUM:

Sensitizing mental health professionals towards psychological, hormonal and other systemic changes in women in perimenopausal and postmenopausal period

CORE CONTENT:

Fluctuating hormonal levels is very common in critical periods of a women's life. Menopause is one of the critical periods. Transition to menopause is long process during which these varied hormonal levels at different times influence various systems of the body including neurological regulations of cognitive and emotional functions

Depressive symptoms like irritability, anxiety, tearfulness, labile mood, tearfulness are common but the distress does not amount to impairment in functioning. Thus most of them do not receive the diagnosis of major depressive disorder. Yet it is important to treat those symptoms.

Most of the females respond to hormone replacement therapy along with antidepressants like selective-serotonin reuptake inhibitors and venlafaxine.

Hormone replacement therapy being crucial to treating vasomotor and psychological symptoms, it indicates some different underlying neuroendocrinological mechanisms leading to these distinct symptoms. It is very important to understand the difference in circardian rhythm, mood, emotional appetite and sexual functioning during this particular period.

CONCLUSION:

Through this symposium we as psychiatrists expect to develop a vision to view the psychological symptoms during menopause with distinct specific perspective that fits precisely to women during perimenopausal women. It is a baby step forward towards achieving an exclusive approach for women during menopause entering a psychiatric consultation room for help.

SYMPOSIUM 152. Irritability and mood dysregulation in children – a dynamic construct CHANGING CONCEPTS

Speaker 1: DR ANIRBAN RAY

Associate professor, Department of Psychiatry
Institute of Post Graduate Medical Education & Research
Kolkata, West Bengal
Speaker 2: Dr. Sarmishtha Chakraborty
Consultant Psychiatrist
Columbia Asia Hospital , Kolkata
Email : drschak2002@gmail.com
(M): 9831270034
Speaker 3 Dr Khyati Mehtalia
Consultant Psychiatriast
"Sakhi" Women's mental health and child guidance clinic,Ahmedabad
Email: khyati.mehtalia@yahoo.com
(M): 9825199276

Irritability and mood dysregulations are common clinical presentations in children, those poses significant challenge for the psychiatrists to manage. Anger outbursts is trans-diagnostic symptom. Those can be secondary to different diagnostic categories. ADHD, ODD, CD, Bipolarity, OCD, Depression. This categories are quite dynamic. DSM

5 developed a category DMDD, which is a part of depressive spectrum. But though in ICD 11 there was an attempt to unify two nosological schools, they differed with DSM 5 in this regard. It done away with DMDD and proposed two subtypes of ODD with or without chronic anger and irritability. (SPEAKER 1)

MANAGEMENT:

PHARMACOLOGICAL: Acute management may be symptomatic by injection or mouth dissolving tablets. Pharmacological management is symptomatic on one aspect through risperidone, aripiprazole. On the other hand, it depends on the underlying diagnosis. ADHD children is given methylphenidate, atomoxetine, and clonidine. Lithium & valproate are beneficial for bipolar equivalents. Though DMDD conceptualized as depressive equivalents, beneficial role of SSRI in aggression is not proven beyond doubts. One reason may be significant occurrence of activation syndrome or mood switch potential of SSRI especially in youth. (SPEAKER 2)

NON-PHARMACOLOGICAL: Non-Pharmacological management is still the gold standard in mood dysregulation and especially disruptive behaviours. Acute management by 'de-escalation' or talking down, to ignoring, autonomic soothers like splash of water, cool air etc. Regular management by quality time and differential reinforcement which are the basics of parental management techniques. Other family based and school based techniques were also useful. Adolescents do well with skills training, cognitive therapy. Multisystemic therapy is still the therapy of choice in conduct disorders. (SPEAKER 3)

SYMPOSIUM 153.Challenges of Mental Hospitals in India and development of Role model for futuristic needs

Topics and speakers are as following-

· Current Status of mental hospitals in India and their challenges –

*Prof (***Dr.) D. Ram*,**

· *Current Status of mental hospitals in Developed country-* **Dr. Prasnna Prabhakar Khatawker****

· *Future direction and plan of action for future development of mental hospitals in India.*

Prof (Dr.) Ram Ghulam Razdan

ABSTRACT

In India the mental asylums were entirely of British conception,. There is a reference of some asylums in the period of Mohammad Khilji (1436-1469) during the fifteenth century. There is evidence of the presence of a mental hospital at Dhar near Mandu, Madhya Pradesh where the physician was Maulana Fazulur Hakim . There is also evidence that modern medicine and hospitals were first brought to India by Portuguese during the 17th century in Goa. However, the segregation of lunatics in mental asylum and their supervision were entirely of British origin.

Infect, the early mental institutions in the Indian sub-continent were greatly influenced by the ideas and concepts as prevalent in England and Europe during those days. Primarily the mental asylums were built to protect the community and not the insane. As such, such asylums were constructed away from cities with high enclosures in either dilapidated buildings like barracks left by the military. It appears that lunatic asylums in India were first started to treat European soldiers employed with the East India Company. To understand the development of mental hospitals, it is relevant to know the political developments in India during that time. There are evidencesthat first lunatic asylum in India was established in Bombay (Mumbai) in the year 1745, followed by Calcutta (Kolkata) in 1784. Subsequently number of such asylums increased significantly and by the year 1947, there were 31 mental hospitals in India. After independence mental hospitals were opened in various states. A recent survey revealed that there are 59 mental hospitals in the country.

There is no uniform development of these hospital .The way they are developing under National Health program and with help of state governments.

This symposium is aimed to develop a module for future role of these Hospitals in delivery of mental health services based on our needs.

****

***Director, Central Institute Of Psychiatry**

** Dr**. Prasnna Prabhakar Khatawker, Consultant Psychiatrist , Director , Adhar Hospital ,Solapur**

***Prof (Dr.) Ram Ghulam Razdan, Head, Department of Psychiatry, M. G. M. Medical College Indore and Superintendent –Mental Hospital Indore**

SYMPOSIUM 154. Health Promotion for Ageing Population- the Indian and Western Perspectives

S.C. Tiwari, A. Ramakrishnan , Rakesh K Tripathi, Nisha Mani Pandey

Health promotion is the term commonly used to describe not only the learned health behaviours and social and cultural influences but also physiological, psychological, and environmental elements. Health promotion is aimed at preventing illness, maintaining wellbeing and enhancing quality of life of the individual and therefore, is an important aspect to understand to fully appreciate its significance at all stages of life, especially the ageing population. It is reported that millions of older Americans are aging well, functioning independently both physically and mentally for decades after 65 and that indicates that this stage of life can be as full of dignity, independence, creativity, health and vitality as any other stage. One can remain well and maintain health in later stages of life if healthy behavioural patterns and lifestyle could be adopted in view and with accordance of our accepted cultural norms. For health promotion, priority areas of action have to be emphasized by going beyond the biomedical model, focussing on the concepts of health and wellbeing, identifying and eliminating cultural obliterations and defining collaborative goals, paving pathways for preventing illnesses/ maintaining health, developing strategies for sustainable interventions and maintaining the same.

Under the aegis of Indian Psychiatric Society's Geriatric Psychiatry Specialty Section, Indian Association for Geriatric Mental Health and Mental Health Foundation Lucknow the presenters will be presenting on the Concept of Health Promotion from Indian and Western perspective, setting into context health promotional activities for elderly as per the most widely accepted Indian cultural framework, paving pathways for preventing and maintaining health-strategies interventions. The following is the format of the presentation:

Topic	Speaker	Total time 90 minutes
Overview on health promotional activities in elderly	Dr. SC Tiwari	18 minutes each and 18 minutes for discussion
Concept & ways of health promotional activities for elderlies in Western countries	Dr. A. N. Ramakrishnan	
Concept & ways of health promotional activities for elderlies in India	Dr. Rakesh K Tripathi	
Carry home message as per Indian and Western perspectives summating health promotional activities for elderlies	Dr. Nisha M Pandey	

SYMPOSIUM 155. INTERNET ADDICTION AND YOUTH (IA): A NEW FRONTIER

Saxena S, Chaudhari D**, Shanker G****

There has been rapid increase in internet use in India with current users pegged at 462 million (approx) in 2017 (11). With rising number of users its indiscriminate and injudicious use has also increased which has lead to behavioral problems and impairment

in over-indulged individuals. Beard (2) recommended excessive preoccupation with internet, unsuccessful efforts to cut down, emotional distress when trying to cut down use, need to use it for longer duration along with impairment as the criteria for Internet addiction (IA). Excessive gaming, pornography, social media/ e-mail, shopping and browsing are major sub-types of this addiction. Adolescents and young adults are most commonly affected by this disorder (7). Its prevalence has ranged from 0.8 to 26.7% in general population (9). In India prevalence of internet addiction has been suggested as 19.85 % with moderate and severe addiction being 19.5% and 0.35% respectively (7). IA has been linked with depression, anxiety, ADHD (1) and even suicide (5) in dependent adolescents and youths. China and South Korea have identified IA as significant public health problem (4). Laws/programs are being mooted to manage IA in India too.

Davis (6) postulated theoretical cognitive behavioral model for explaining internet addiction where as Robinson (10) proposed conditioning as a psychological reason behind inability to cut down internet use by addicts. Anonymity, convenience and escape model and Winkler's model of development and maintenance of IA which takes into account socio-cultural aspects too are other psychological models explaining IA. A dysfunction in prefrontal cortex, especially dorsolateral prefrontal cortex and executive functions is involved in internet addiction. Han et al (8) found that desire to play was positively correlated with right para hippocampal gyrus and right medio-lateral frontal cortex on fMRI. Brand (3) reviewed that over-activity in cingulated gyrus is involved in poor cognitive control and conflict management in these patients. Dopaminergic reward system loop has been implicated in IA for craving and reinforcement.

Internet addiction test (IAT), compulsive internet use scale(CIUS) and problematic internet internet use scale (PIUS) are scales used to assess this disorder (4). Motivational interviewing and three phase Cognitive behavior therapy for internet addiction has been successfully used in IA(13). Reality therapy, group therapy, solution focused brief therapy (SFBT) and acceptance and commitment therapies (12) are other psychological interventions which have been useful. Selective serotonin re-uptake inhibitors (SSRIs) have been used treat co-morbid anxiety-depression symptoms in these patients. Bupropion has been found to be useful in reducing compulsive impulsive gaming in one study. Mood stablisers and naltrexone have been reported in case-reports with some benefit.

SYMPOSIUM 156. Mental Healthcare Act, 2017 – Challenges and Opportunities

Resources Person:

1) Dr Naveen C Kumar Additional Professor of Psychiatry, NIMHANS	Introduction to MHCA 2017
2) Dr Manjunatha N Associate Professor of Psychiatry, NIMHANS	Challenges to MHCA 2017
3) Dr Mahesh Gowda Director, Spandana Nursing Home and Rehab Center	Case Vignettes Presentation
4) Dr Suresh Bada Math Prof of Psychiatry, NIMHANS	Case Vignettes Discussions

Abstract

Mental Health Care (MHC) Act 2017 is a reality and rights based mental healthcare legislation for protecting, promoting and preventing human rights violation during health service delivery. This legislation revolves around 'individual rights' & 'liberty' and brought various revolutionary changes such as advance directive, nominated representative, capacity to consent for treatment & admission and articulating rights of persons with mental illness. Further, independent Mental health review boards and responsibilities of government are clearly emphasized. The major importance of human rights-based approach in MHCA 2017 will eventually bring in changes by making States responsible and accountable for providing care. This new legislation bring in new hopes, new challenges and new opportunities.

The objective of this workshop is to give an overview of MHC act 2017 and its upcoming issues while implementing it. The workshop brings together all mental health practitioners and legal experts, who are interested and working in the field of mental healthcare service delivery to discuss the processes underlying the legal reasoning and helping the practitioners in making clinical decision making under the legal framework.

SYMPOSIUM 157.WPA Section on Rural Mental Health Symposia: 'Rural Mental Health, Challenges and Solutions'.

Chair: Professor Satish Malik

Co-Chair: Professor Vimal Sharma

Speakers

1. Middle East and Disaster. Professor Mohammed Abou-Saleh, St George's, University of London.
2. Mental Health in Older Adults. Professor Paul Kingston, University Of Chester, UK.
3. Farmer Suicide in India. Professor Prakash Behere, Vice Chancellor, D Y Patil University.
4. Australian Perspective: 'The Weight is Over, It's Time to Intervene'. A/ Professor Anshuman Pant, Griffith University, Australia.
5. Training Health Workers using GMHAT/PC Mental Health Training Package. Professor Vimal Sharma, University of Chester, UK.

SYMPOSIUM 158- Psychiatry as a career in UK

Authors- *Dr Manoj Rajagopal, Dr Mukul Sharma, Dr Richard Morgan, Imran Chati*

Lancashire Care NHS Foundation Trust, UK

UK has always been seen as a place for doctors from all over the world to come and work. Work experience in NHS and quality of life in UK has always been an attraction. In Lancashire Care Foundation Trust as part of the recruitment, we always welcome and support doctors from overseas. Lancashire care Trust is the major provider of community, well-being and mental health services in this area. Its size and scale mean that there are numerous opportunities available in a range of specialisms that are not available in many other Trusts. Doctors will be supported by a well-established group of peers to fulfil the potential and current aspirations and ensure that the doctor achieve the work life balance to pursue their interests outside of work.

The Trust has a range of services provided for consultants and other doctors with a range of specialisms to practise including Child and Adolescent services, Early intervention services, Forensic services, and from 2018 will also provide Liaison psychiatry and Perinatal services with a new mother and baby unit. Also there is choice of working in in-patient or community services. The Trust proactively supports consultants to get involved in developing their personal areas of interest beyond their formal role. The Trust has strong links with Lancaster, Liverpool and Manchester University and is an advocate of continuous professional development offering bespoke training packages to its doctors to support career progression. We have students joining from major north-west universities and there is a dedicated training development programme providing excellent teaching opportunities for doctors

The Trust supports all new doctors especially overseas doctors and has been providing various relocation packages. Lancashire care supports doctors to acclimatise to UK as well as the NHS system by providing induction to get used to the British NHS system as well as to the trust. All doctors join a well-established group of medics where you can be sure of peer support

at your appropriate level. We offer buddies scheme for the new doctors. Doctors are also offered mentors as well as supervisors for new doctors who join the trust. We also have CESR trainers to support the new doctors to get them as consultants at the earliest possible we also provide facilities for new doctors especially overseas doctors when they come to the country by getting them accommodation, bank account, and other facilities needed to start their life in UK we also have a dedicated team do you support these overseas doctors at the initial time. We have recently acquired state of the art new accommodation exclusively for the new doctors.

SYMPOSIUM 159- WPA Section on Rural Mental Health Symposia: 'Rural Mental Health, Challenges and Solutions'

Speakers

1. Middle East and Disaster. Professor Mohammed Abou-Saleh, St George's, University of London.

2. Mental Health in Older Adults. Professor Paul Kingston, University Of Chester, UK.

3. Farmer Suicide in India. Professor Prakash Behere, Vice Chancellor, D Y Patil University.

4. Australian Perspective: 'The Weight is Over, It's Time to Intervene'. A/Professor Anshuman Pant, Griffith University, Australia.

5. Training Health Workers using GMHAT/PC Mental Health Training Package. Professor Vimal Sharma, University of Chester, UK.

SYMPOSIUM 160- BRIEF REAPPRAISAL OF DREAMS IN PSYCHIATRY

SPEAKERS : *Dipika Singh : Neuroscience of Dreams
*Manjit Santre : Dreams in Mental Disorders and Drug Treatment
M S V K Raju : Dynamic and Quantitative studies of dreams
*Department of Psychiatry, B J Medical College, Pune 411001

Dreams reflect the workings of the mind when we are not fully aware of the environment nor ourselves. Analysis and interpretation of dreams formed part of clinical and therapeutic workof psychiatrists at the turn of last century after the landmark publication of Freud's " The Interpretation of Dreams". With the emphasis on descriptions, categorisation and medicalisation in psychiatry . interest in dreams waned. There was a reawakening of interest after the discovery of REM sleep. Advances in neuroscience in recent times have created a resurgence of interest in dreams. It is now known dreams can not only be interpreted in various ways integrated into the comprehensive therapeutic process but also can be subjected to non-dynamic quantitative study to derive insights into person's personality. The purpose and meaning of dreaming can be understood now with much more clarity than before. Mental disorders have different patterns of dreams. Psychotropic drugs affect dreams. It is increasingly realised now that there are dimensions to dreams that need to be studied, investigated and utilised for the benefit of patients and also for the psychiatrists. The symposium will highlight the fact that as products of mind, which happens to be the area in which psychiatrists operate, dreams have a place in psychiatry.

SYMPOSIUM 161-
Title: The way forward in de stigmatisation in mental health

Author: Dr.Monali Deshpande

Dr.Vikrant Patankar

Abstract:

Subtitle:The ground reality

Author:Dr.Vikrant Patankar

The 21 st century has achieved many milestones in many areas of human life.The development in all aspects is mind boggling.As everything comes with price ,so it's the era of stress.All of us are exposed to a different world,which puts a lot of unrealistic demands on us.Mental health of every individual is at stake with the distress and expectations put on him or her.

India is a developing country and we are moving towards being the next powerful nations in the world.The government is bringing in new laws for the rights of patients and their betterment.But as far as mental health is concerned we still are far way behind.The national programmes to come in reality will need Human Resources ,infrastructure,policies which will help us implement the current mental health care act.

But we as professionals are only 6000 pan India and the mental health disorder load is far more.There is a dearth of professionals in our field and moreover the stigma and misconceptions regarding mental illness is India is the main hinderance towards achieving the required treatment plans.

2.The way ahead

Author:Dr.Monali Deshpande

To achieve the required positive results in mental health in society

We as mental health professionals need to get together for achieving it.

PANKH a ngo for psychological well-being was formed in Aurangabad ,Maharashtra for the same.It comprises of Psychiatrists,psychologists,special educators,mental health social workers.As the stigma stops people from taking timely help,we designed various programmes to reach the community.

The programme conducted on 7 th oct 2018 was a milestone achieved towards it.

5 people who are survivors of mental illness came together to share their life stories under PANKH.

The stories were real life time experiences of illness and its recovery. As patients themselves came up in open about their illnesses and spoke of their journey,it inspired and clarified many of the programme attendees ideas about mental illness.A lot of knowledge sharing,clarity on misconceptions about mental illness,hopes regarding recovery were put forth.

The programme helped change the way society looks at mentally ill.

The results were seen in media coverage and the registration of few patients for similar programme.The confidence to come to a psychiatrist and seek timely help is seen by all of us post this programme.

3.Lessons learned

This is module which can be replicated in all cities and towns pan India. we have to reach the community to be heard.Recovered patients are our brand ambassadors.when they share their own recovery stories the impact is far more than expected.

An all inclusive model which gives due respect to mentally ill and treats them as any other sick person,psychoeducating the society and de stigmatising the illness is the way forward.

We would like to share our and our patients success stories.The module shared will help psychiatrist generate positivity towards our profession in society and will help us reach all.

The timely help people will seek after understanding will save many lives.

The symposium aims to take a step forward towards de stigmatisation of mental illness through sharing our PANKH module.