Oxford Handbook of Acute Medicine (4 edn)

Punit Ramrakha, Kevin Moore, and Amir Sam

Previous Edition (3 ed.)

Publisher: Oxford University Press
Print ISBN-13: 9780198797425
DOI: 10.1093/med/9780198797425.001.0001
Print Publication Date: Nov 2019
Published online: Jan 2019

Differential diagnosis of common presentations

Chapter: Differential diagnosis of common presentations

Author(s): Punit S. Ramrakha, Kevin P. Moore, and Amir H. Sam

DOI: 10.1093/med/9780198797425.003.0016

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Introduction

It is often said that 80% of the diagnosis depends on a good history. The differential diagnosis formed from the history can then be narrowed down by physical examination and investigations.

The history of the presenting complaint is a key component of establishing a diagnosis and should be divided into three subsections to ensure that the most crucial points in the history are dealt with at an early stage.

About the symptom

That is, what, where (including radiation), when (onset, duration, course), how bad (severity), exacerbating/relieving factors, etc.

About the most relevant organ system

(For example, questions relating to the respiratory and cardiovascular systems for a patient presenting with breathlessness.) It is important to ask about the most relevant organ systems and common ‘associated symptoms’ during the initial history, rather than during the systemic enquiry. See Systemic enquiry, p. [link] for a summary of the most important questions.

Risk factors

Go through your list of differential diagnoses for the presenting complaint (see next sections), and ask questions about the various differentials and risk factors that increase the likelihood of their development. For example, if a patient presents with diarrhoea, the list of differential diagnoses includes infection. Therefore, risk factors such as contacts, food history, recent travel, etc. should be addressed.

The following pages will outline relatively short/memorable lists of differential diagnoses for the most common presenting symptoms. These lists are not comprehensive but are a good starting point. Each list of differential diagnoses can be used as a guide for asking the important questions about each differential and the risk factors.

See the appropriate sections in the rest of this book for further information on the clinical signs and the specific investigations needed to exclude or confirm a diagnosis.

Systemic enquiry

General questions

Fever, sweats, fatigue, malaise, loss of appetite, weight loss, lumps.

Cardiovascular

Chest pain, palpitation, breathlessness (exertional, at rest, orthopnoea, paroxysmal nocturnal dyspnoea), ankle swelling, dizziness.

Respiratory

Wheeze, breathlessness, cough, sputum, haemoptysis, chest pain, calf pain/swelling.

Gastrointestinal

Loss of appetite/weight, nausea/vomiting, dysphagia, indigestion/heartburn, abdominal pain, change of bowel habit (diarrhoea or constipation), bloating, blood/mucus PR, melaena or haematemesis, jaundice, pruritus, dark urine, pale stool.

Urogenital

Urinary frequency, urgency, dysuria, haematuria, loin pain, vaginal/penile discharge, periods/sexual problems.

Neurological

Cognitive impairment or reduced consciousness (from collateral history), visual disturbance, hearing loss, speech/swallowing problems, headache,

neck/back pain, weakness, paraesthesiae, balance/coordination problems, bowel/bladder control.

Rheumatological

Morning stiffness, joint pain/swelling/stiffness, deformity, malaise/fatigue/weight loss, arthralgia, myalgia, rash, Raynaud's phenomenon, hair loss, red or sore or dry eyes, dry mouth, oral ulcers, genital ulcers.

Diabetes and endocrine

Polyuria, polydipsia, fatigue, weight loss, neck swelling or tenderness, tremor, heat/cold intolerance, sweating, changes in hair, skin, voice, face, hands, or feet appearance, pigmentation.

Ear, nose, and throat

Ear pain/discharge, nasal discharge/crusting, sore throat.

Abdominal pain 1

(See Fig. **16.1**.)

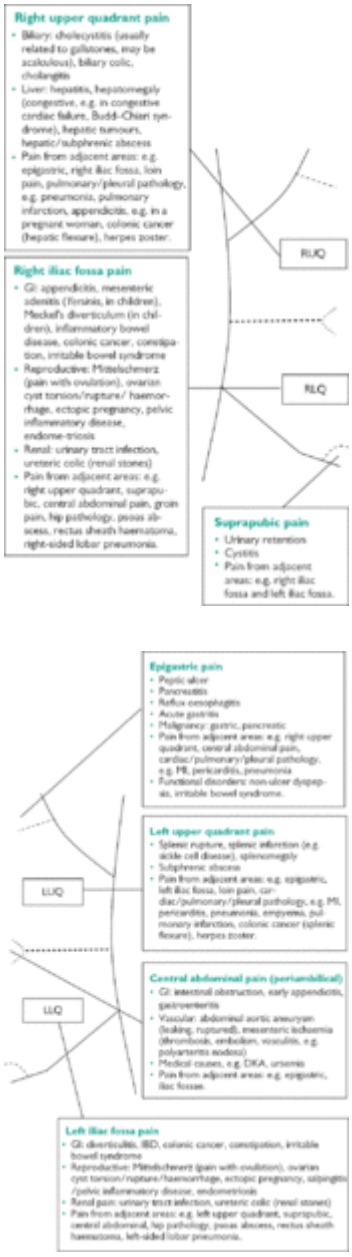

Fig. 16.1
Causes of regional abdominal pain.

Abdominal pain 2

Loin pain

- Infection: UTI (pyelonephritis), perinephric abscess/pyonephrosis.
- Obstruction: in the lumen, e.g. stones, tumour, blood clots; in the wall, e.g. stricture (ureteric/urethral); pressure from the outside, e.g. prostatic/pelvic mass, retroperitoneal fibrosis.

• Other: renal carcinoma, renal vein thrombosis, polycystic kidney disease, pain from the vertebral column.

Groin pain

• Renal stones (pain radiating from loin to groin).

• Testicular pain, e.g. torsion, epididymo-orchitis (pain radiating from scrotum to groin). Hernia (inguinal), hip or pelvic pathology, e.g. fracture.

Diffuse abdominal pain

• Gastroenteritis.

• Peritonitis.

• Intestinal obstruction.

• IBD.

• Mesenteric ischaemia.

• Medical causes.

• Irritable bowel syndrome.

Medical causes

Most causes of abdominal pain are surgical. However, occasionally there may be a ‘medical cause’ of abdominal pain:

• Cardiovascular/respiratory: MI, pneumonia, Bornholm’s disease (Coxsackie B virus infection).

• Metabolic: DKA, Addisonian crisis, hypercalcaemia, uraemia, porphyria, phaeochromocytoma, lead poisoning.

• Neurological: herpes zoster.

• Haematological: sickle-cell crisis, retroperitoneal haemorrhage (e.g. anticoagulants), lymphadenopathy.

• Inflammatory: vasculitis (e.g. Henoch–Schönlein purpura, PAN), familial Mediterranean fever.

• Infections: intestinal parasites, TB, malaria, typhoid fever.

• Irritable bowel syndrome.

Abdominal pain (referred)

(See Fig. **16.2**.)

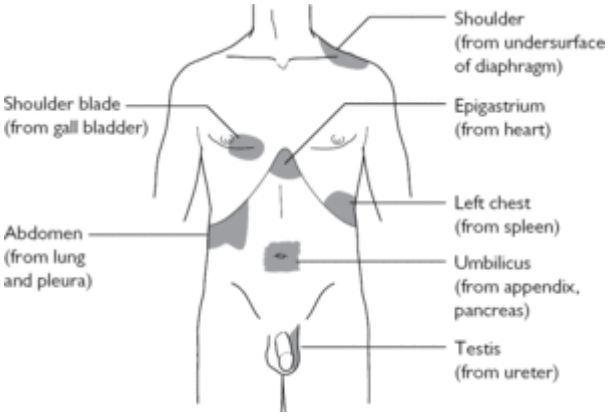

Fig. 16.2
Common sites of referred pain.

Abdominal distension

- Fat (obesity).
- Fluid (ascites, fluid in the obstructed intestine).
- Flatus (intestinal obstruction).
- Faeces.
- Fetus.
- Giant organomegaly (e.g. ovarian cystadenoma, lymphoma).
- Small bowel: adhesions, herniae, Crohn’s disease, gallstone ileus, foreign body, tumour, TB.
- Large bowel: cancer, volvulus, diverticulitis, faeces.

Back pain

All patients

- Strenuous activity, muscle spasm, trauma, fractures.
- Infection: TB or bacterial osteomyelitis of vertebra, disciitis.
- Malignancy: metastasis, multiple myeloma, malignant lumbosacral plexopathy (with colorectal and gynaecologic tumours, sarcomas, lymphomas).
- Spinal cord compression.
- Infection: epidural abscesses (IV users, vertebral osteomyelitis, haematogenous spread)—common pathogens: *Staphylococcus aureus, Mycobacterium tuberculosis*.
- Malignancy: myeloma, metastases (vertebral, spinal cord).
- Inflammatory: RA, sarcoidosis, or tophaceous gout.

• Other: haematomas (bleeding disorders, anticoagulant therapy), arteriovenous malformation.

Younger patients (≤40 year)

• Prolapsed disc, ankylosing spondylitis, spondylolisthesis.

Older patients (≥40 year)

• Osteoarthritis, spinal stenosis, and spinal claudication.

• Osteoporotic fractures, Paget’s disease of bone.

Blackouts

Cardiovascular (due to transient reduction in blood flow to the brain)

• Arrhythmia: bradycardia (heart block), tachycardia.

• Outflow obstruction: aortic stenosis, hypertrophic obstructive cardiomyopathy, PE, pulmonary stenosis.

• Postural hypotension: hypovolaemia, autonomic neuropathy (e.g. DM), antihypertensive medications (e.g. ACEIs).

• MI, aortic dissection, and any other condition that may cause a sudden reduction in cardiac output.

Neurological

• Epilepsy, stroke/TIA (rarely).

Neurocardiogenic (vasovagal) syncope and carotid sinus hypersensitivity

Vasovagal syncope may be induced by prolonged standing, cough, micturition, venepuncture, heat exposure, or painful stimuli. There may be no identifiable cause, especially in the elderly. Blackouts due to carotid sinus hypersensitivity may be produced by head turning, tight-fitting collars, or shaving.

Metabolic

- Hypoglycaemia (Hypoglycaemia: assessment, pp. [link]–[link]).

Breathlessness/dyspnoea

The causes of breathlessness are best classified according to rapidity of onset. However, although the onset gives a significant clue, the following lists are not mutually exclusive.

Acute (seconds)

- PE.
- Pneumothorax.
- Foreign body.
- Anaphylaxis.
- Anxiety.

Subacute (minutes to hours)

- Acute LVF (pulmonary oedema).
- Asthma exacerbation.
- COPD exacerbation.
- Pneumonia (bacterial, viral, fungal, TB).
- Metabolic acidosis.

Chronic (days to weeks)

- Anaemia.
- Thyrotoxicosis.
- Recurrent PEs.
- Cardiac disease (chronic cardiac failure, arrhythmias, valvular heart disease).
- Asthma.
- COPD.
- Non-resolving pneumonia.
- Bronchiectasis.
- Lung cancer.
- Interstitial lung disease/pulmonary fibrosis (cryptogenic, connective tissue diseases, drugs, environmental/occupational lung disease).
- Pulmonary hypertension.
- Pleural effusion.

- Neuromuscular disorders, chest wall deformities.

Chest pain

Some causes of chest pain

Chest wall

- Ribs: fracture or neoplasm.
- Intercostal muscle: spasm, inflammation (Bornholm’s disease).
- Costochondritis.
- Herpes zoster.
- Thoracic vertebral pain.
- Thoracic nerve root pain.

Pleura

- Pleurisy (infectious, neoplastic, vasculitic, irritative).

Lung vasculature

- Pulmonary infarction.
- Pulmonary hypertension.

Mediastinal structures

- Lymph nodes (lymphoma, cancer).
- Oesophagitis.
- Aortic dissection.
- Tracheobronchitis.
- Pericarditis.
- Myocardial pain (angina, ACS).

Extrathoracic

- Cervical arthritis.
- Subdiaphragmatic disease (e.g. hepatitis, splenic infarction, pancreatitis, peptic ulcer, gallstones).
- Migraine.

Chest pain (pleuritic)

- PE.

- Pneumothorax.
- Pneumonia.
- Pericarditis.
- Serositis/connective tissue disease.
- Malignancy involving the pleura.
- Pathology under the diaphragm.
- Musculoskeletal.

Collapse

See Blackouts, p. [link].

Confusion

- Hypoglycaemia.
- Hypoxia: cardiac arrest, shock (hypovolaemic, septic), respiratory failure.
- Vascular: intracranial haemorrhage/infarction.
- Infection: extracranial (most commonly UTI and pneumonia in the elderly); intracranial (meningitis, encephalitis).
- Inflammation (cerebral vasculitis).
- Trauma (head injury).
- Tumour (↑ ICP).
- Toxic: drugs, e.g. opiates, alcohol, anxiolytics, antidepressants.
- Metabolic: liver failure, renal failure, electrolyte (Na^+, K^+, Ca^{2+}, Mg^{2+}) disturbances, endocrinopathies, e.g. myxoedema coma, vitamin deficiencies (e.g. thiamine, B_{12}), hypothermia.
- Post-ictal.

Constipation

- Drugs: opiates, anticholinergics (tricyclics, phenothiazines), iron tablets.
- Immobility, old age.
- GI/surgical.
- Intestinal obstruction (strictures, IBD, cancers, diverticulosis, pelvic mass, e.g. fibroids).
- Pseudo-obstruction in scleroderma.
- Anorectal disease (fissure, stricture, rectal prolapse).
- Post-operative.

- Endocrine: hypothyroidism, hypercalcaemia, hypokalaemia, porphyria, lead poisoning.
- Neurological/neuromuscular: autonomic neuropathy, spinal/pelvic nerve injury, Hirschsprung's disease, Chagas' disease.

Cough

- URTI.
- All lung diseases:
  - Asthma, COPD, PEs, infection (viral/bacterial/fungal/TB pneumonia), bronchiectasis, malignancy, interstitial lung disease, sarcoidosis, pneumoconiosis.
- Other causes:
  - Post-nasal drip.
  - Gastro-oesophageal reflux disease.
  - ACEIs.
  - Cardiac failure.
  - Psychogenic.

Cutaneous manifestations of internal malignancy

Cutaneous malignancy with frequent internal spread

- Melanoma.
- Scar-related squamous cell carcinoma (e.g. mucosal surfaces, old scars).
- Mycosis fungoides.
- KS.

Internal malignancy with cutaneous spread

- Breast carcinoma.
- Leukaemia and lymphoma cutis.
- Miscellaneous (occasionally seen with GI, genitourinary, and lung malignancy).

Pigmentation changes

- Hyperpigmentation (especially with melanoma).
- Acanthosis nigricans (especially gastric cancer).

• Sign of Leser–Trélat (rapid appearance of multiple seborrhoeic keratoses).

• Peutz–Jeghers syndrome.

• Jaundice (biliary tract tumours, pancreas, liver metastases from other tunours).

• Purpura (e.g. leukaemia).

Flushing and facial erythema

• Carcinoid.

• Mastocytosis.

• Phaeochromocytoma.

• Cushing’s disease.

Specific skin signs sometimes associated with malignancy

• Dermatomyositis in adults.

• Bullous disease in adults (pemphigus and pemphigoid).

• Bowen’s disease on non-sun-exposed areas.

• Arsenic keratosis of palms and soles.

• Paget’s disease of the nipple.

• Basal cell naevus syndrome.

• Acquired ichthyosis (lymphomas).

• Exfoliative erythrodermatitis.

Diarrhoea

Infection

• *Viral*: adenovirus, astrovirus, calciviruses (norovirus and related viruses), rotavirus.

• *Bacterial: Campylobacter, Salmonella, Shigella*, haemorrhagic *Escherichia coli, Clostridium difficile, Yersinia enterocolitica, Clostridium perfringens, Vibrio cholerae, Vibrio parahaemolyticus*.

• *Parasites*: cryptosporidia, *Giardia, Entamoeba histolytica*.

• *AIDS*: AIDS enteropathy, cryptosporidia, microsporidia, CMV.

• IBD.

• Malabsorption: small intestine disease/resection, biliary or pancreatic disease.

• Medication: laxatives, antibiotics.

• Overflow diarrhoea: secondary to constipation.

• Endocrine: thyrotoxicosis, VIPomas.

NB *Staphylococcus aureus* and *Bacillus cereus* mainly present with vomiting 1–6h after ingestion of prepared food, e.g. salad, dairy, meat (*S. aureus*) and rice and meat (*B. cereus*).

Diarrhoea (bloody)

- Infective colitis: *Campylobacter*, haemorrhagic *E. coli, Salmonella, Shigella, E. histolytica*, CMV in the immunocompromised.
- IBD.
- Ischaemic colitis.
- Diverticulitis.
- Malignancy.

Dysphagia

Mechanical obstruction of the oesophagus

- Congenital stricture.
- Corrosive stricture.
- Foreign body.
- Carcinoma of the oesophagus or stomach.
- External compression (e.g. aortic aneurysm).
- Oesophageal divertula or pouch.
- Reflux oesophagitis with stricture.

Dysphagia secondary to pain

- Pharyngitis.
- Laryngitis.

Neurologic dysfunction of the oesophagus

- Bulbar paralysis.
- Syphilis.
- Lead poisoning.
- Tetanus.
- Rabies.
- Parkinson’s disease.
- Botulism.
- Myasthenia gravis.
- Achalasia.
- Plummer–Vinson syndrome.

- Hysteria.

Falls

- Sensory (visual, hearing, proprioception) impairment.
- Gait/balance problem.
- Muscle weakness/rigidity.
- Urinary incontinence/frequency/urgency.
- Medications: psychotropic, opiates.
- Cognitive impairment.
- Home hazards (especially in the elderly).

Fever

- Infection: abscesses (e.g. subphrenic, liver, pelvis); bacterial—infective endocarditis, pneumonia, UTI, biliary infection, osteomyelitis, TB, brucellosis, viral (e.g. HIV, CMV, EBV), malaria, etc.
- Inflammation/connective tissue disease: e.g. RA, SLE, sarcoidosis, vasculitides, polymyalgia rheumatica.
- Malignancy: lymphomas, leukaemia, renal cell, hepatocellular, or pancreatic carcinoma.
- Metabolic: thyrotoxicosis.
- Drugs: e.g. antibiotics, allopurinol, phenytoin, interferon.
- NMS, malignant hyperthermia, serotonin syndrome.
- Familial Mediterranean fever, familial periodic fever.

Fever in a traveller

- Hepatitis A.
- Malaria.
- Dengue.
- Typhoid.
- Leptospirosis.
- Haemorrhagic fevers.
- Long incubation: malaria, typhoid, TB , brucellosis, leishmaniasis, amoebic abscess.

Fits

- Vascular: haemorrhage, infarction, cortical venous thrombosis, vascular malformation.

- Trauma: head injury.
- Tumours.
- Toxic: alcohol, drugs, lead, CO.
- Metabolic: hypoxia, hypoglycaemia, electrolyte disturbances (↑ or ↓ Na^+, K^+, Ca^{2+}, Mg^{2+}), renal/hepatic failure, endocrine disorders (e.g. myxoedema), vitamin deficiency.
- Infection: meningitis, encephalitis, abscess, TB, cysticercosis, HIV.
- Inflammation: MS, vasculitis, SLE, sarcoidosis.
- Malignant hypertension.

Haematemesis and melaena

- Peptic ulcer (gastric/duodenal).
- Gastritis/gastric erosions, duodenitis, oesophagitis.
- Gastro-oesophageal varices.
- Mallory–Weiss tear.
- Medications: NSAIDs, anticoagulants, steroids, thrombolytics.
- Oesophageal/gastric cancer.
- *Rarely*: bleeding disorders (thrombocytopenia, haemophilia), hereditary haemorrhagic telangiectasia, Dieulafoy gastric vascular abnormality, aortoduodenal fistulae, angiodysplasia, leiomyoma, Meckel's diverticulum, pseudoxanthoma elasticum.

Haematuria

(See Fig. **16.3**.)

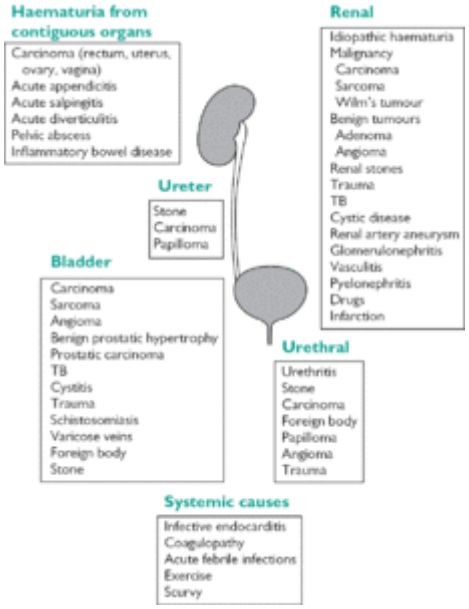

Fig. 16.3
Causes of haematuria.

Haemoptysis

NB *Nasal or upper respiratory tract and GI bleeding may be confused with haemoptysis*

Infectious

- Acute bronchitis.
- Pneumonia.
- Bronchiectasis.
- Lung abscess.
- Mycobacterial infection.
- Fungal infection (histoplasmosis, coccidiomycosis, aspergillosis).
- Parasites (paragonimiasis, schistosomiasis, ascariasis, amoebiasis, echinococcus, strongyloidiasis, etc.).

Neoplastic

- Bronchogenic carcinoma.
- Bronchial adenoma.
- Metastatic deposits.

Traumatic

- Lung contusion.
- Bronchial rupture.
- Post-endotracheal intubation.

Vascular

- Pulmonary infarction.
- Pulmonary vasculitis.
- Arteriovenous fistula.

Cardiovascular

- Pulmonary oedema.

Parenchymal

- Diffuse interstitial fibrosis.
- Systemic diseases and vasculitis (WG, RA, SLE, Goodpasture’s, etc.).
- Sarcoidosis.

Headache

Serious causes to exclude

- Head injury.
- Meningitis/encephalitis.
- Vascular: haemorrhage (subarachnoid, intracranial), cerebral venous thrombosis, pituitary apoplexy.
- Dissection (carotid/vertebral artery).
- Acute angle closure glaucoma.
- Giant cell arteritis.
- Other causes: malignant hypertension, drugs (e.g. GTN, Ca^{2+} channel antagonists), infections (bacterial, viral illnesses, etc.), electrolyte imbalances (e.g. hyponatraemia), hyperviscosity syndromes (e.g. polycythaemia), reduced ICP (e.g. post-LP), migraine, migrainous neuralgia.

Hemiparesis

- Vascular: infarction, haemorrhage.

• Infection: brain abscess from local (e.g. middle ear, sinuses) or distant (e.g. lung) infections, in the immunocompromised—TB, toxoplasmosis, PML.

• Inflammation: demyelination, cerebral vasculitis.

• Trauma: extradural or subdural haemorrhage (a history of trauma may not be apparent in the latter).

• Tumours: primary (e.g. meningioma, glioma), metastases, lymphoma.

• Metabolic: hypoglycaemia (transient).

• Other causes of transient hemiparesis: epileptic seizures (Todd's paralysis), migraine.

Hoarseness

Traumatic

• Foreign body.

• External injury to the larynx.

• Voice abuse ('singer's nodules').

• Irritant gases (tobacco and other smoke).

• Aspiration (acid, alcohol).

Infections

• Viral.

• Diphtheria.

• Syphilis.

• Leprosy.

Idiopathic

• Sarcoidosis.

• Lupus erythematosus.

• Cricoarytenoid ankylosis in RA.

Neurological

• Recurrent laryngeal palsy.

• Bulbar palsy.

• Myasthenia gravis.

Other

- Weakness.
- Myxoedema.
- Acromegaly.

Itching/pruritus

Causes of pruritus with visible skin disease

Rashes with excoriation

- Eczematous diseases (atopic, contact dermatitis, stasis dermatitis, anogenital pruritus, seborrhoeic dermatitis).
- Scabies.
- Dermatitis herpetiformis.
- Psoriasis.
- Superficial fungal disease (especially feet and intertriginous areas).
- Pinworm infestation (perianal).
- Psychogenic causes.

Rashes with little or no excoriation

- Urticaria.
- EM.
- Lichen planus.
- Drug reactions.
- Pityriasis rosea.
- Urticaria pigmentosa (mastocytosis).
- Pruritic papules of pregnancy.

Causes of pruritus without visible skin disease

Associated with internal disease

- Uraemia.
- Liver disease (biliary cirrhosis, obstructive jaundice).
- Lymphoma.
- Polycythaemia.
- Pregnancy.
- Miscellaneous (e.g. occasionally seen with DM, thyroid disease, parathyroid disease, iron deficiency, internal malignancy, etc.).

Not associated with internal disease

- Pediculosis pubis.
- Pinworm infestation.
- Xerosis.
- Psychogenic.

Joint pain/swelling

Single joint

- Infection: septic arthritis (staphylococci, gonococci, Gram –ve bacilli, TB, Lyme disease).
- Trauma, haemarthrosis (haemophilia).
- Gout/pseudogout.
- RA, osteoarthritis.
- Seronegative arthritides: reactive arthritis, enteropathic arthritis (IBD, Whipple’s disease), ankylosing spondylitis, psoriatic arthritis.
- Systemic: SLE, Sjögren’s syndrome, sarcoidosis, Behçet’s disease, vasculitides.
- Malignancy.

Multiple joints

- Infection: disseminated septic arthritis (e.g. staphylococcal, gonococcal), viral (e.g. enteroviruses, EBV, HIV, hepatitis B, mumps, rubella), rheumatic fever, Lyme disease, TB.
- Gout/pseudogout.
- RA, osteoarthritis (generalized).
- Seronegative arthritis: reactive/Reiter’s, enteropathic (Whipple’s, IBD), ankylosing spondylitis, psoriatic arthritis.
- Systemic diseases: SLE, sarcoid, Sjögren’s, Behçet’s, primary vasculitides, polymyalgia rheumatica.
- Other: haemochromatosis, sickle cell, malignancy (hypertrophic pulmonary osteoarthropathy).

Leg swelling

Bilateral

- Cardiac failure.
- Liver failure.

• Other causes of hypoalbuminaemia (malnutrition, malabsorption, nephrotic syndrome, protein-losing enteropathy).

• Renal failure.

• Hypothyroidism.

• Iatrogenic: oestrogens, Ca^{2+} channel blockers, ‘glitazones’, NSAIDs, fluid overload.

• Venous insufficiency: acute (prolonged sitting), chronic venous obstruction, e.g. pelvic mass, pregnancy, IVC/bilateral iliac vein obstruction.

Unilateral

• Acute.

• DVT.

• Cellulitis.

• Compartment syndrome, trauma.

• Baker’s cyst rupture.

Chronic

• Varicose veins.

• Lymphoedema (non-pitting): primary, lymph node involvement [radiotherapy, infection (filariasis), malignant infiltration, excision].

• Immobility.

Melaena

See Haematemesis and melaena, p. [link].

Muscle weakness

Congenital

• Muscular dystrophies: (limb-girdle, facioscapulohumoral, Duchenne, myotonic).

• Glycogen storage diseases.

• Inherited spinal muscular atrophies.

Infectious

• Viral (e.g. influenza).

• Bacterial (e.g. TB, syphilis).

• Parasites (e.g. trichinosis, toxoplasmosis, trypanosomiasis).

Toxic

- Alcohol.
- Heavy metals (e.g. mercury, lead, arsenic).
- Corticosteroids.
- Organophosphates.
- Drugs (vincristine, doxorubicin, heroin).
- Botulism.

Traumatic

- Exercise.
- Injury.
- Seizure.

Metabolic

- Hyper- or hypothyroidism.
- Hypokalaemia.
- Hypophosphataemia.
- Hypocalcaemia..
- Hypomagnesaemia.
- Hypoglycaemia.
- DM.
- Cushing’s disease.
- Addison’s disease.
- Hyperparathyroidism.
- Hyperaldosteronism.
- Acromegaly.
- Malnutrition.

Vascular insufficiency

Immune/idiopathic

- Myasthenia gravis.
- Scleroderma.
- SLE.
- PAN.
- RA.
- PMR.

- Sarcoidosis.
- Polymyositis/dermatomyositis.

Neoplastic

- Carcinomatous myopathy.
- Eaton–Lambert syndrome.
- Carcinoid myopathy.

Nausea

See Vomiting, p. [link].

Palpitations

- Fever, dehydration, exercise, anaemia, pregnancy.
- Drugs (caffeine, nicotine, salbutamol, anticholinergics, vasodilators, cocaine).
- Cardiac: any arrhythmia (e.g. AF, extrasystoles, SVT, VT), valvular disease, cardiomyopathy, septal defects, atrial myxoma.
- Endocrine: thyrotoxicosis, phaeochromocytomas, hypoglycaemia, mastocytosis.
- Psychiatric: panic attacks, generalized anxiety disorder.

Seizures

See Fits, p. [link].

Tremor

See Table 16.1.

Table 16.1 Characteristics of tremor

Tremor type	Characteristics	Seen in
Simple tremor		
Essential, familial, or senile tremor	Not present at rest (except in the head)	Persons with family history Fatigue Advanced age Stimulants Fever Thyrotoxicosis

Parkinsonism	Present in the hands at complete rest Associated with rigidity; ↓ associative movements, small steppage gait, mask-like facies	Parkinsonism of all types
Cerebellar tremor	Worse with motion and associated with cerebellar signs	MS, Wilson's disease, hereditary ataxia
Chorea	Jerky, irregular, sudden movements, intermittent fidgeting	Acute rheumatic fever (Sydenham's chorea) Huntington's chorea
Athetosis	Upper limbs predominate Slow, sinuous, writhing movements	Cerebral palsy Drugs
Myoclonus	Sudden jerks of single muscles or groups	Epilepsy Encephalitis Hyponatraemia Hyperosmolar state Some degenerative CNS diseases
Tetanic spasms	Sustained contractions of single muscles or muscle groups	Tetanus Spasticity
Hemiballismus	Flinging movements of the arm and leg on one side	Infarction of the subthalamic nucleus

Unconsciousness/reduced consciousness

- Hypoglycaemia.
- Hypoxia: cardiac arrest, shock (hypovolaemic, septic), respiratory failure.

- Vascular: intracranial haemorrhage/infarction.
- Infection: meningitis, encephalitis.
- Inflammation (cerebral vasculitis).
- Trauma (head injury).
- Tumour (↑ ICP).
- Toxic: drugs, e.g. opiates, alcohol, anxiolytics, antidepressants.
- Metabolic: liver failure, renal failure, electrolyte (Na^+, K^+, Ca^{2+}, Mg^{2+}) disturbances, endocrinopathies, e.g. myxoedema coma, vitamin deficiencies (e.g. thiamine, B_{12}), hypothermia.
- Epilepsy (post-ictal).

Vomiting

- Drugs, poisoning, alcohol.
- Abdominal pathology (GI, hepatic, gynaecological).
- Metabolic/endocrine: DKA, Addisonian crisis, hypercalcaemia, uraemia, pregnancy.
- ↑ ICP (infection, SOL, BIH).
- Acute labyrinthitis.
- Acute angle closure glaucoma.

Weak legs

Spastic paraparesis

- Inflammation: demyelination, transverse myelitis (post-infectious, e.g. viral infections, *Mycoplasma*), vasculitides, sarcoidosis, SLE.
- Infection: epidural abscess, tuberculous abscess, HIV, HTLV-1 (tropical spastic paraparesis), syphilis.
- Trauma: vertebral fractures/dislocation, disc protrusion (usually spontaneous, rather than traumatic).
- Tumours: vertebral metastases, intrinsic cord tumours (ependymoma, glioma, metastases), extrinsic tumours (neurofibroma, meningioma), parasagittal meningioma.
- Metabolic: vitamin B_{12} deficiency (subacute combined degeneration).
- Degenerative: of the spine (spondylosis with cord compression); in the cord: motor neuron disease.
- Congenital: hereditary spastic paraparesis, Friedreich’s ataxia.
- Other: syringomyelia

Flaccid paraparesis

- Polyneuropathies.
- Myopathies.
- Anterior spinal artery syndrome (spinal cord infarction).

Wheeze

- Angio-oedema/anaphylaxis.
- Asthma.
- Bronchitis.
- Bronchiectasis.
- Cardiac wheeze (pulmonary oedema).
- Cancer (lung).
- Carcinoid syndrome.
- Pulmonary eosinophilia.