East of England – Emergency Medicine Dermatology

Dr D Vijayasankar
HST Training Day
20th Sept 2019

Objectives

- Understand common terminology
- Common exanthems
- Tips

For Exam Preparation

- Common terminologies in Dermatology
- Criteria's in diagnosing skin/systemic conditions presenting with dermatological problem
- Differential diagnosis of common and life threatening conditions
- Aetiology
- Causative organism

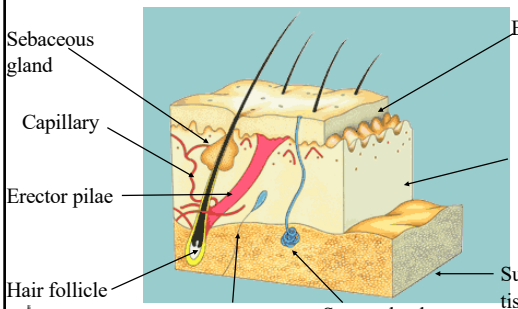
Know the difference

- Erythema Multiforme, Marginatum, Nodosum
- SSS/TEN/Necrotising Fascitis
- Pemphigoid and Pemphigus
- Common viral exanthems

Why is it Important?

- Extra ordinary structure
- Skin diseases are very common
- Everyone will have suffered
- 10-15% of GP work
- Second commonest cause of loss of work.

Anatomy



Question

- Enlist four things you would elicit in Dermatology history?
- Why history is important in dermatology?

History and Why it is necessary

- Primary skin disease or manifestation of systemic disease
- Onset, duration, spread,phasic
- Pruritis
- Wet or dry
- Exacerbating factors
- Medication
- PMH, FH, SH (occupation)

Question

- List six categories in distribution examination?

Examination

- **Distribution**
  - Spread
  - Unilateral or bilateral
  - Symmetrical or asymmetrical
  - Flexor or extensor
  - Exposed or protected
  - Centripetal or centrifugal
  - Nail, hair, scalp, mucosae

Examination

- **Morphology**
  - Monomorphic or pleomorphic
  - Bizarre shapes, ring, linear
  - Palpate
  - Common terms
- Other exam as required, e.g hepatosplenomegaly, LN

Question

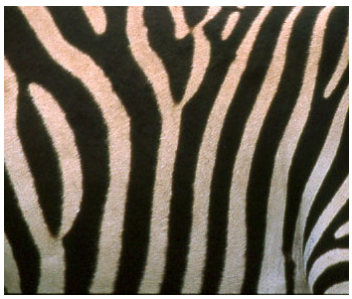
- What are the generic treatments in dermatology?

Treatments

- Dressings
- Emollients
- Antibiotics
- Antihistamines
- Analgesia
- Steroids
- Other, PUVA, counselling

Dermatology Atlas

http://dermatlas.med.jhmi.edu/derm/



Zebra Principle

Lesion Types

- Macule
- Papule
- Plaque
- Wheal
- Nodule
- Vesicle
- Purpura
- Pustule
- Cyst
- Scale
- Erosion
- Crust
- Excoriations

Erythematous Exanthems

- Rash
- Usually viral in origin
- Could be secondary to toxin produced by organism
- Systemic symptoms
  - Headache, Malaise and fever

History Clue's – Erythematous Exanthems

- Starts on Face
  - Measles, Rubella, Infectiosum
- Starts on Trunk
  - Roseola, Scarlet
- Papulo vesicular
  - Chicken pox
- Extremities
  - Hand, foot and mouth

Measles

Measles (Rubeola)

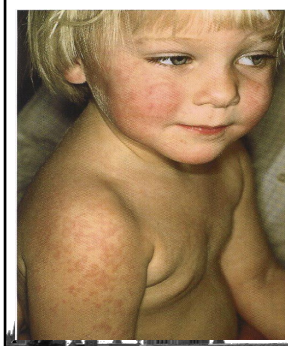
- RNA paramyxovirus
- 7 – 18 days incubation period
- Preceded by fever, cough and red eyes (look unwell)
- Rash lasts 4 - 7 days
- Koplik's Spots
- Typically begins at the hairline and spreads caudally
- Lasts 4 – 7 days
- From prodrome till 4 days after rash onset (Infectivity)

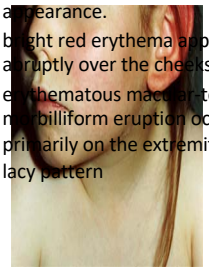
Rubella

Rubella (German Measles)

- RNA virus
- Young children though adolescents and adults can get infected
- Seven days before and four days after (Infectivity)
- Prodrome may not be present
- Rash from face to whole body in 24hrs
- generalized, tender lymphadenopathy that involves all nodes

Fifth Disease (Erythema Infectiosum)

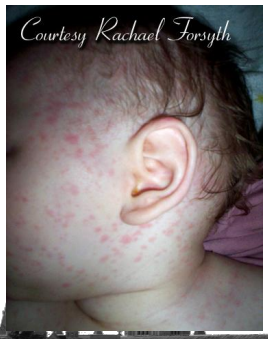




- Classic slapped-cheek appearance.
- bright red erythema appears abruptly over the cheeks
- erythematous macular-to-maculopapilliform eruption occurs primarily on the extremities
- lacy pattern

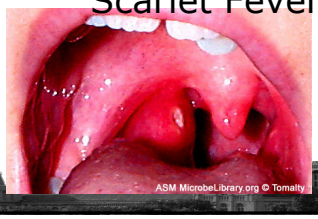
- Human parvovirus B19
- Primarily is a disease of children aged 3-15 years
- Not infectious once rash appears
- A benign self-limited disease
- oral analgesics and antihistamines or topical antipruritic lotions
- prognosis is excellent for typical childhood cases

Roseola infantum (6th Disease)



- Exanthum Subitum
- Children less than 2 years of age
- History of high fever followed by rapid fall in tempt and a characteristic maculopapular rash
- HHV-6
- Has a complete recovery in few days

Scarlet Fever



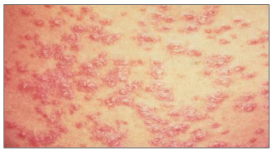
- Streptococcus Pyogens
- 1 – 7 days
- Scarlatiniform rash
- Sandpaper rash
- Rash fades, peeling affects the fingertips, toes and groin area
- 2-8 years age group
- Flushed face with circumoral pallor.
- Petechiae on the soft palate.
- Strawberry tongue
- The body rash appears 12-24 hours after onset of illness
- Infectivity 5 – 7 days

ChickenPox

Varicella -zoster

- Typical vesicular rash
- <10 years of age more common
- Trunk and then spreading to the face and scalp
- oval teardrop on an erythematous base
- Most infectious period 1-2 days
- Until the lesions have crusted

A 17 year old male presents to the ED with a rash which appeared suddenly over his trunk & tops of his arms & legs 3 days ago. He has developed more lesions and they are slightly itchy. He completed a brief course of penicillin V for tonsillitis 2 weeks ago. He feels otherwise well.



1) What is the likely diagnosis? (1)
2) What organism is most likely to have precipitated this rash? (1)
3) What information will you provide him regarding the prognosis? (1)

SJS

- Less than 10% TBSA
- 10-30% TBSA mixed TEN/SJS
- >30% TEN

Erythema Multiforme

Management:

- Majority if cases – no Rx required; resolves over 2-3 weeks
- Rx cause → HSV – aciclovir PO; Mycoplasma – antibiotics (e.g. erythromycin)
- Stop offending drug
- Supportive Rx → PO antihistamines; topical corticosteroid; mouthwashes
- Eye involvement requires specialist ophthalmologist assessment
- Erythema multiforme major – may require admission for supportive Rx

A 32 year old male with ulcerative colitis presents with a rash. His temperature is 37.8 but other observations are normal.

1) What is the likely diagnosis? (1)
2) Except for inflammatory bowel disease give 2 other causes of this skin disorder? (1)
3) Name one other symptom that may be associated with this skin disorder (1)

Erythema Nodosum

- Hot, tender, ill-defined nodular erythematous eruption – typically pretibial area of lower legs, can also affect forearms/ trunk
- Inflammation of subcutaneous fat (panniculitis) with involvement of adjacent vasculature
- Immunological reaction affecting all age groups
- Can be associated with arthralgia & fever
- Clinical diagnosis
- Lasts 3-8 weeks → tends to leave bruised appearance
- Management according to cause

SAQ 3:

A 17 year old male presents to the ED with a rash. He describes having a cold sore 1 week ago followed by the abrupt onset of the rash. The rash started peripherally & spread centrally. He is unwell, febrile, tachycardic and complaining of a headache. He also has a sore mouth, gritty eyes & haematuria on dipstick testing.

1) Describe the key features of this rash? (1)
2) What is the likely diagnosis? (1)
3) What is the most likely infective agent that has precipitated the rash? (1)

Erythema marginatum	Evanescent, nonpruritic rash usually on the trunk and extremities; occurs with rheumatic fever
Erythema migrans	Bull's-eye appearance; central erythema and necrosis; expands rather than migrates
Erythema multiforme	Maculopapular rash usually on the palms and feet; often pruritic and blanches away slowly
Erythema nodosum	Erythematous macules usually on the shins; no central clearing; often painful

A 14 year old boy attends the ED with a sore left nostril. He has recently had a coryzal illness & his nose became cracked & sore after wiping it so much. He presents to the ED with his mother, 6 year old sister & 2 month old brother. They are attending as the affected area seems to be spreading.

1) What is the likely diagnosis? (1)
2) Name the causative microbe? (1)
3) What important advice will you provide prior to discharge home? (1)

Impetigo

- Superficial infection of skin caused by Group A Streptococci or Staphylococcus aureus.
- Initially ulcerative erythematous area → exudes serous fluid → golden brown crust.
- Highly contagious, spreads rapidly – advice re: prevention of spread
- Bullous impetigo – caused by S.aureus
- Local infection → topical fusidic acid.
- Extensive → oral or IV antibiotics

A 52 year old woman presents with a swollen & exquisitely tender left lower limb. She recalls scratching her ankle a few days ago with her fingernail whilst putting her trousers on. She is a diet controlled type 2 diabetic. The leg is erythematous, hot to touch & very tender. She is nauseous, lost her appetite and has a temperature of 38.4 degrees.

1) What is the likely diagnosis? (1)
2) Name the causative microbe? (1)
3) Detail 2 components of your management plan? (1)

Erysipelas

- Superficial form of cellulitis
- Area of intense redness, heat & clearly defined margins
- Very tender
- Typically caused by group A Strep (streptococcal infection)
- Usually associated with systemic upset
- Treated with antibiotics – e.g. phenoxymethylpenicillin
- Analgesia

Cellulitis

- Bacterial skin infection (usually streptococcal, occasionally staph).
- Can occur in association with wounds or in the absence of skin breach.
- Area warm, erythematous, tender, poorly defined margins ± lymphadenopathy.
- Treatment depends on severity
- Local infection – oral antibiotics (Pen V/ fluclox/ co-amox or erythro)
- Systemically unwell – Admit + IV antibiotics.
- Cellulitis of the face – risk of IC complication (CST)

Cellulitis

Necrotising Fasciitis

- Rare but severe bacterial infection of soft tissues
- Can occur with/ without trauma
- May follow illicit IM heroin injection (“muscle popping”)
- Typically Strep pyogenes, sometimes with Staph aureus or other bacteria
- Often both aerobic & anaerobic organisms.
- Infection involves fascia & subcutaneous tissues with gas formation & development of gangrene.
- Infection may spread to adjacent muscles causing myonecrosis or pyogenic myositis.

Necrotising Fasciitis

- Rare but severe bacterial infection of soft tissues
- Can occur with/ without trauma
- May follow illicit IM heroin injection ("muscle popping")
- Typically Strep pyogenes, sometimes with Staph aureus or other bacteria
- Often both aerobic & anaerobic organisms.
- Infection involves fascia & subcutaneous tissues with gas formation & development of gangrene.
- Infection may spread to adjacent muscles causing myonecrosis or pyogenic myositis.

Necrotising Fasciitis

- Fournier's gangrene – affects abdomen & groin.
- Initial symptoms vague: severe pain but little to find on examination.
- Tenderness, swelling, erythema, crepitus, pyrexia.
- Rapid spread of infection – marked swelling, discolouration, haemorrhagic blisters, skin necrosis.
- Toxic shock may occur – very high mortality.
- X-ray – may show gas in soft tissues, but may be normal.
- Treatment: Resuscitation, IV antibiotics (pen + clinda), urgent debridement, ITU.

A 45 year old female re-presents to the ED. She was in the ED 2 days ago with pain over the left side of her forehead. She has now developed a rash over the same area.

1) What is the name of this specific condition & what is the causative microbe? (1)
2) What potential complication would you specifically check for? (1)
3) Give 2 steps you would take in your management plan? (1)

Shingles

- Shingles → reactivation of VZV that has remained dormant in dorsal root ganglion following primary infection
- Usually in elderly
- Erythema → vesicular rash in a dermatomal distribution → crusting
- Can affect any dermatome
- Initially presents as pain (diagnostic difficulty), rash develops 1-4 days later

Shingles

- Unilateral distribution over 1-2 dermatomes
- Ophthalmic shingles → via long ciliary nerves; risk of corneal ulceration
- Oral lesions → maxillary & mandibular shingles
- Ramsay-Hunt syndrome – Infection of geniculate ganglion causes facial palsy with lesions in pinna of ear, side of tongue & hard palate

Shingles

- Antiviral treatment: If given early can reduce risk of post-herpetic pain (within 72 hours of start of rash)
- Aciclovir 800mg 5 times daily for 7 days
- Analgesia
- Specialist referral & antiviral treatment for ophthalmic shingles & immunodeficient patients with shingles
- Antibiotics for secondary bacterial infection.

A 75 year old female is sent to ED by her carer. She has developed large, itchy tense blisters on her ankles and feet. The skin in that area was previously normal but she had complained of itching + burning sensation.

1) Apart from those detailed in question 2 give two differential diagnoses for this type of skin change? (1)
2) Give 2 features that differentiate pemphigus vulgaris from bullous pemphigoid? (1)
3) Give 2 possible complications of this disorder (1)

Bullous pemphigoid vs Pemphigus vulgaris

Pemphigoid	Pemphigus
Generalised mucocutaneous blistering disease	Generalised mucocutaneous blistering eruption
Rare	Rare
Autoimmune	Autoimmune
Affects elderly most commonly	Affects 50-60 years of age most commonly
IgG + activated T-lymphocytes attack basement membrane, hemidesmosomal proteins → separation of keratinocytes from dermis	IgG binds to desmoglein protein → separation of keratinocytes from each other
Below epidermal basement membrane - sub-epidermal (deep)	Intraepidermal (superficial)
Tense blisters (up to 10cm diameter) – associated with pruritus + burning	Clear vesicles or bullae (varying in size) → turbid + flaccid blisters (2-3 days)
Ulceration with tissue loss (less painful)	Rupture → painful denuded areas (slow to heal)
Originate from normal skin or atop erythematous/ urticarial plaque	Originate from normal skin or atop erythematous/ urticarial plaque
Nikolsy's sign negative	Nikolsky's sign positive
Intertriginous & flexural areas	Head, trunk & mucous membranes
Mucosal ulceration 10-25% of cases (less severe)	Mucous ulceration 95% of cases (more severe)
Oral steroids	Oral steroids & immunosupression
Good prognosis	Poor prognosis without treatment

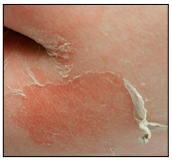
Bullous pemphigoid vs Pemphigus vulgaris

Diagnosis: Skin biopsy from edge of blister & direct immunofluorescence

Complications: Protein, fluid & electrolyte losses through involved skin → hypoalbuminaemia, hypovolaemia & electrolyte disturbances

Treatment:

- PV: Admission usually required; high dose corticosteroid, bisphosphonate (long term steroids), Antibiotics for secondary infection, Analgesia, IV fluids/ electrolyte replacement, immunosuppressant therapy, IV immunoglobulin
- BP: Admission if severe/ widespread, High dose steroids initially → maintenance dose, topical steroids if localised disease, bisphosphonate (long term steroid), antibiotics for secondary infection, Analgesia, IV fluids/ electrolyte replacement, immunosuppressive agents, IV immunoglobulin



A 1 year old boy is brought to ED by his mum with a rash. Mum noted that his skin felt rough when she was bathing him 2 days ago & then today she noted an area of skin in the axilla which was wrinkled & starting to peel.

1) Give the likely diagnosis & 1 other differential diagnoses for these skin changes? (1)
2) What is the responsible organism for this condition? (1)
3) Give 2 points of your management plan for this patient? (1)

Staphylococcal Scalded Skin Syndrome (SSSS)

- Develops in patients with clinically inapparent staphylococcal infections (nasopharynx, conjunctiva, umbilicus)
- Exotoxin produced by staph aureus causes acantholysis & intraepidermal cleavage of the skin
- Occurs primarily in infants & young children & immunosuppressed adults
- **3 phases:** Initial (tender diffuse erythroderma) → exfoliative (2nd day skin wrinkles & peels – Nikolsky sign +) → desquamation (3-5 days large flaccid vesicles & bullae rupture & shed in large sheets)
- Underlying tissue resembles scalded skin & rapidly desiccates
- No mucous membrane involvement

Staphylococcal Scalded Skin Syndrome (SSSS)

- ***Differential diagnoses:*** TEN; TSS; exfoliative drug eruptions; burns; bullous impetigo, pemphigus vulgaris
- ***Management:*** fluid resuscitation, correction of electrolyte disturbances, identification + treatment of source of toxigenic staphylococcal infection with antibiotics
- Corticosteroids NOT recommended

A 24 year old female with cerebral palsy has presented to the ED with a 2 week history of lethargy, loss of appetite, generalised arthralgia & itchy skin. She subsequently developed tender red areas around her eyes & mouth which spread. She now has blistering around her lips & mouth ulcers are making it difficult for her to drink. She has recently been diagnosed with epilepsy.

1) What is the likely diagnosis? (1)
2) What is the likely cause for this condition in this patients case? Name 1 other potential cause of this condition (1)
3) Give 2 points of your management plan for this patient? (1)

Toxic Epidermal Necrolysis (TEN)

- Explosive dermatosis characterised by: Tender warm erythema (initially eyes, nose, mouth, genitalia + becoming generalised) → bullae formation (flaccid, ill-defined between epidermis + dermis) → exfoliation (Nikolsky sign +, epidermis sheds in sheets leaving raw denuded areas of exposed dermis)
- Associated with systemic illness → 1-2 week prodrome of malaise, anorexia, arthralgia, fever, URTI
- Concomitant skin tenderness, pruritus, tingling or burning may occur during this prodrome
- Affects all age groups, no predilection to sex
- Poorly understood pathogenesis – thought to be partly immunologic + genetic predisposition

Toxic Epidermal Necrolysis (TEN)

- Multiple causes – medications most common cause
- Average onset after inciting agent ~2 weeks
- Cutaneous extension follows an unpredictable time course (1-15 days)
- Mucous membrane involvement → oral, ocular, anogenital, GI, urinary, respiratory tracts
- Peri-labial blistering + erosive lesions → disfigurement; poor oral intake with hypovolaemia
- Ocular complications → purulent conjunctivitis, painful erosions, blindness
- 2 major complications + leading causes of death in TEN: 1) hypovolaemia with electrolyte disturbance; 2) infection (Staph + Pseudomonas)

Toxic Epidermal Necrolysis (TEN)

Mortality 25-30%

Causes:	***Management:***
- Sulfa + penicillin antibiotics, rifampicin/ anti-TB agents - Anticonvulsants (carbamazepine/phenytoin) - Barbiturates - NSAID's/ allopurinol - Malignancy - HIV - Idiopathic	- Admission – critical care/ burn unit - Airway assessment + control if required → sloughing of airway/ respiratory epithelium can occur - Hypovolaemia + electrolyte abnormality correction - Prompt+ aggressive antibiotic therapy if infection

Differential diagnoses:

Lesion Morphology	Differential considerations
Macule	Viral exanthem/ erythema multiforme/ meningococcaemia/ Drug erution/ naevus/ lice infestation/ trauma/ vitiligo/ celllulitis (early)/ tinea versicolor
Papule	Acne/ BCC/ melanoma/ naevus/ warts/ molluscum contagiosum/ skin tags/ atopic dermatitis/ urticaria/ eczema/ folliculitis/ insect bites/ vasculitis/ psoriasis/ scabies/ erythema multiforme/ varicella (early)
Plaque	Eczema/ pityriasis rosea/ tinea corporis/ tinea versicolor/ psoriasis/ seborrhoeic dermatitis/ urticaria/ erythema multiforme
Nodule	BCC/ SCC/ Metastatic carcinoma/ melanoma/ erythema nodosum/ furuncle/ lipoma/ warts
Wheal	Urticaria/ angioedema/ insect bites/ erythema multiforme
Pustule	Acne/ folliculitis/ hydradenitis suppurative/ HSV/ HZV/ VZV/ impetigo/ psoriasis/ rosacea/ pyoderma gangrenosum
Vesicle	HSV/HZV/VZV/ impetigo/ thermal burn/ friction blister/ TEN/ bullous pemphigoid/ pemphigus vulgaris/ toxicodendron dermatitis
Bulla	Bullous impetigo/ toxicodendron dermatitis/ thermal burn/ friction blister/ TEN/ bullous pemphigoid/ pemphigus vulgaris
Scales	Psoriasis/ pityriasis rosacea/ dermatophytic infections/ thermal burn
Crusts	Eczema/ dermatophytic infection (tinea)/ impetigo/ contact dermatitis/ insect bite
Erosions	Candidiasis/ dermatophytic infections/ eczema/ TEN/ erythema multiforme/ bullous pemphigoid/ pemphigus vulgaris
Ulcers	Apthous lesions/ chancroid/ thermal/ pressure ulcer/ friction injury/ ischaemic ulcer/ malignancy/ chancre/ bullous pemphigoid/ pemphigus vulgaris/ pyoderma gangrenosum

Benign Pustular Melanosis of the Newborn

- Present from birth
- Sterile, neutrophils only
- Pustules last 24 hrs, hyperpigmented lesions for weeks

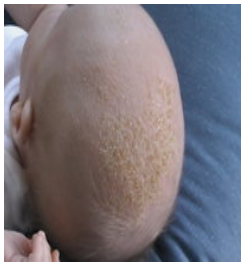
Erythema Toxicum Neonatorum

- Term neonates aged 3 days to 2 weeks.
- small, erythematous papules, vesicles, and, occasionally, pustules.
- The lesions typically resolve within 2 weeks

Sebaceous Hyperplasia

- white spots on the forehead, nose and cheeks.
- overgrowth of the sebaceous glands
- Due to carry over of maternal hormones.

Cradle Cap (Seborrhea)

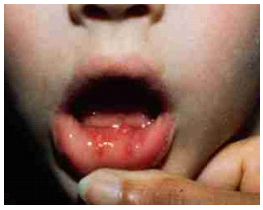


- Greasy and yellow, scaly patches.
- Unknown cause
- Usually appears during the first couple of weeks.
- Wet Compresses (Saline) to affected area.
- Soft brush to remove scales from scalp
- Anti- seborrheic shampoo

Cutis marmorata

- exposure to cold
  but also sepsis and dehydration
- immature vascular tone
- improves with age
- Peripheral cyanosis

Hand foot and Mouth Disease

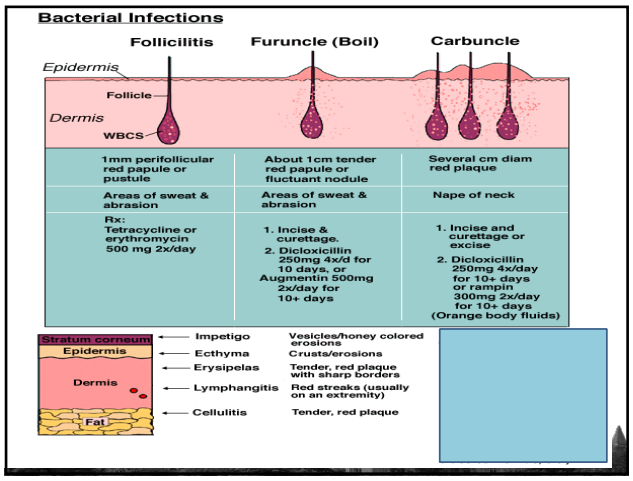


Hand Foot and Mouth Disease

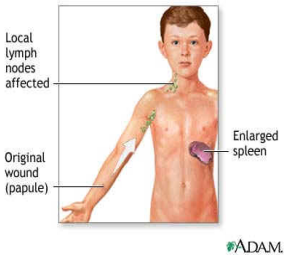
- Coxsackie A16
- common childhood illness
- Mouth sores, fever, and a rash
- Fever and a sore throat
- small red spots on the tongue, gums, or mucous membranes. They may blister or form ulcers.
- The spots are often found on the palms and soles
- Rash does not itch
- 1 week
- Pain relief and plenty of fluids

Impetigo

- Staphylococci or group A beta-hemolytic streptococci.
- erythematous macule
- multiple small pustules
- honey-colored crust



Cat-Scratch Disease



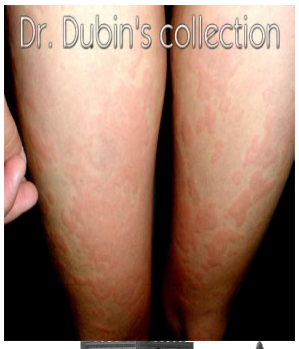
Cat Scratch Disease

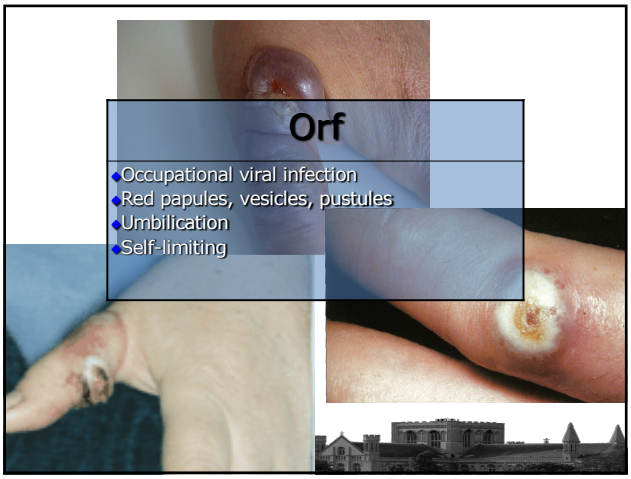
- *Bartonella henselae*
- children and adults younger than 21 years
- Papule initially and progresses to a vesicle
- proximal lymphadenopathy in about two weeks
- disease classically characterized by painful regional lymphadenopathy
- Antipyretics and analgesics
- Local heat may be applied
- Aspiration of tender, fluctuant nodes
- ?Antibiotics

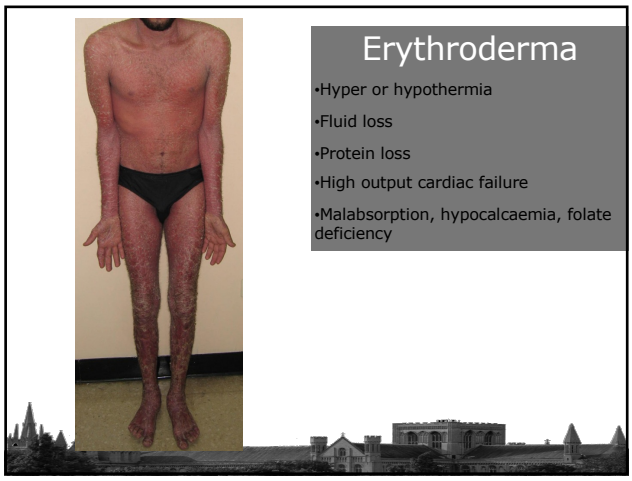
Molluscum Contagiosum

Molluscum Contagiosum

- cutaneous infection caused by DNA poxvirus that affects both children and adults
- Asymptomatic
- Pain / Pruritis
- Firm, smooth and umbilicated papules
- Become confluent to form a plaque
- Trunk and extremities
- Self-limited and heals after several months or years
- Topical applications
- Surgical Care







Sarcoptes scabiei

- Direct and prolonged contact with an infected individual
- Mites can survive up to 3 days away from human skin
- recent onset of intense itching that is accentuated at night.
- small papules, vesicles, and burrows
- topical antiscabietic agents, with repeat application in 7 days
- Ivermectin

Kawasaki Disease

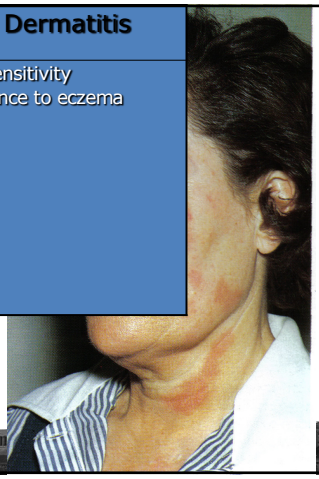
- Acute febrile vasculitic syndrome of early childhood.
- 90-95% of cases occur in children younger than 10 years
- Classical 5 criterions for diagnosis
- Fever, lasting more than 5 days
- Polymorphous erythematous rash
- Nonpurulent bilateral conjunctival injection
- Oropharyngeal changes
- Peripheral extremity changes
- Nonpurulent cervical lymphadenopathy

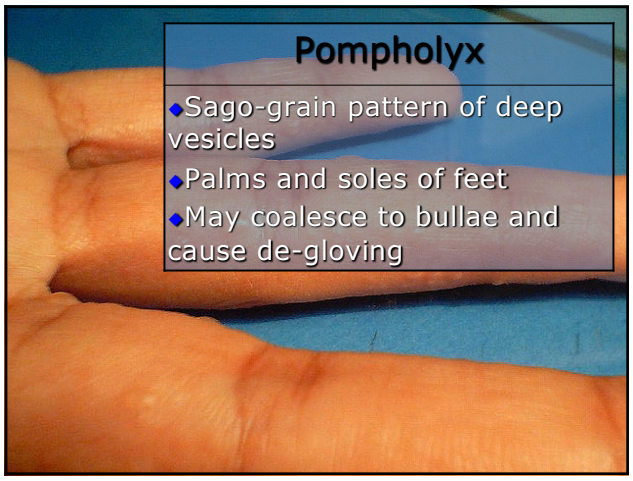
Eczema

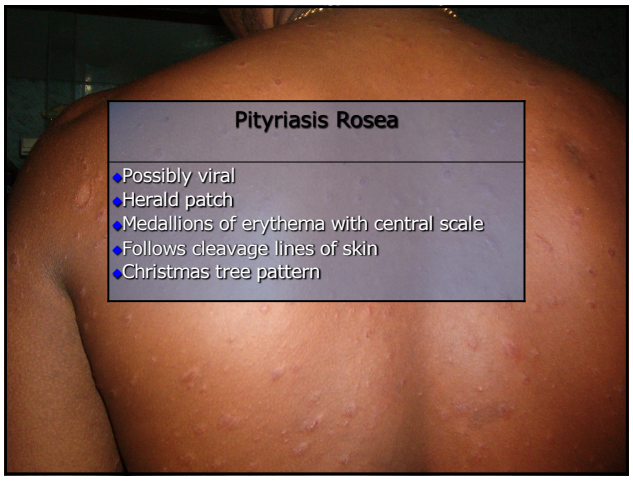
- Itching
- Weeping
- Crusting
- Scaling
- Flexor surfaces
- Erythema
- Oedema
- Papules
- Vesicles
- Lichenification
- Fissuring

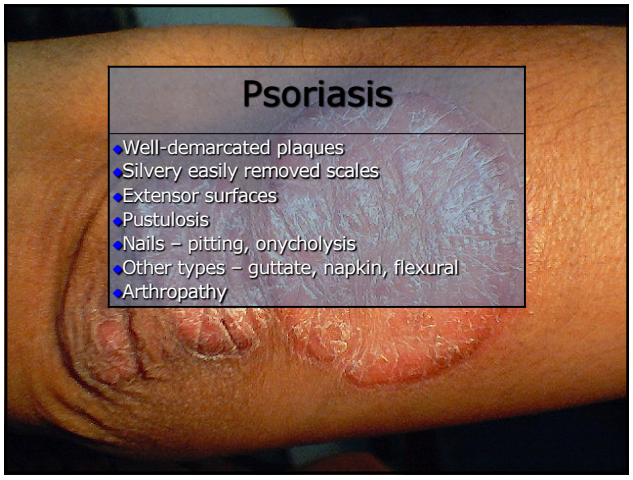
Contact Dermatitis

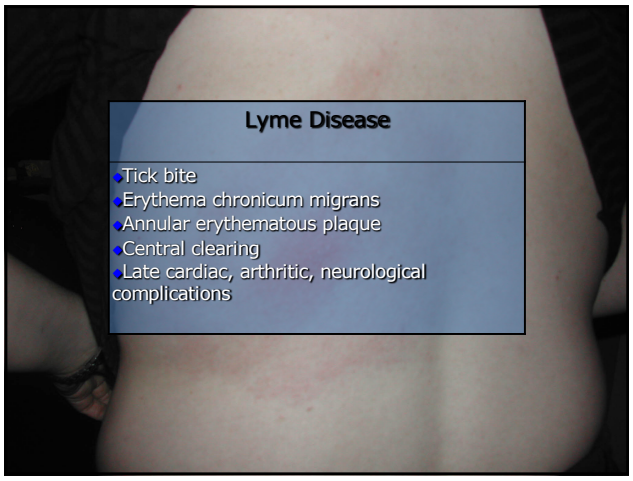
- Type IV hypersensitivity
- Similar appearance to eczema
- Bizarre shapes
- Localised
- Precipitants
  - –Nickel
  - –Nail varnish
  - –Rubber
  - –Plants




Pompholyx
Sago-grain pattern of deep vesicles
Palms and soles of feet
May coalesce to bullae and cause de-gloving


Pityriasis Rosea
Possibly viral
Herald patch
Medallions of erythema with central scale
Follows cleavage lines of skin
Christmas tree pattern

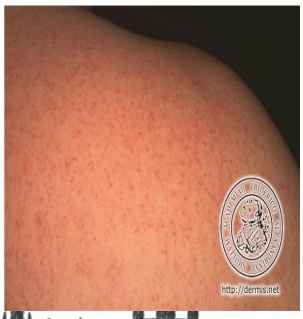

Psoriasis
Well-demarcated plaques
Silvery easily removed scales
Extensor surfaces
Pustulosis
Nails – pitting, onycholysis
Other types – guttate, napkin, flexural
Arthropathy


Lyme Disease
Tick bite
Erythema chronicum migrans
Annular erythematous plaque
Central clearing
Late cardiac, arthritic, neurological complications


Herpes Simplex


Common Wart

Miliaria Rubra



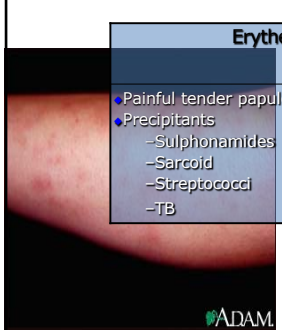
- Generalized red pinpoint rash frequently seen on the neck, armpit and chest.
- Prevented by keeping the room at a reasonable temperature

Erythema Multiforme

- Hypersensitivity reaction
- Bilateral peripheral symmetrical
- Target lesions
- Precipitants
  - –Streptococci
  - –Herpes
  - –Mycoplasma
  - –Penicillin
  - –Sulphonamides

Erythema Nodosum

- Painful tender papules on shins
- Precipitants
  - –Sulphonamides
  - –Sarcoid
  - –Streptococci
  - –TB



HSP

Reading

- Common terminologies in Dermatology
- Differential diagnosis of common and life threatening conditions
- Aetiology
- Causative organism
- http://www.pcds.org.uk/

Thank you!