PRISMA HEALTH®

62nd Annual Greenville Postgraduate Seminar

Spotlight: Primary Care
Dermatology for Primary Care

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Approach

• Morphology of the rash (describe it):
  – Papulosquamous
  – Urticarial
  – Hyperpigmented

• Distribution of rash
  – Photodistributed
  – Extensor surfaces
  – Symmetric

• Symptoms related to rash
  – Itching
  – Pain
  – Fever
Primary Lesions

• Macule versus Patch

• Papule versus Plaque

• Vesicle versus Bullae

• Urticarial
Macules and Patches

Macule

Patch
Idiopathic Guttate hypomelanosis
Phototoxic Drug Eruption
Papules and Plaques
Molluscum Contangiosum
Psoriasis

- Knees
- Elbows
- Umbilicus
- Gluteal Cleft
- Scalp
- Palms/soles
Vesicles and Bullae
Herpes Zoster
Urticarial

- Fluid infiltrating into the dermis
- Itches
- Last only hours
Secondary Lesions

• Scale
  – Excess dead epidermal cells (usually white)

• Crust
  – Dried serum/heme

• Erosion
  – Focal loss of epidermis (no scar)

• Ulcer
  – Focal loss of epidermis and dermis (may scar)

• Atrophy
  – Depression in the skin as a result of thinning of epidermis or dermis
Pityriasis Rosea
Distribution

• Widespread
• Scattered
• Acral
• Photodistributed
• Intertriginous
• Symmetric Extremities
• Extensor surfaces
• Trunk
Dermatitis Herpetiformis

- Knees
- Elbows
- Buttocks
- Upper back
- Extremely pruritic
Cases
Case 1

• A 18-year-old woman with 1 week:
  • generalized rash
  • facial edema
  • fever
  • severe fatigue
• Treated for a UTI 2 weeks ago with Bactrim
• She has no previously known allergies.
DRESS

• Exam:
  • generalized morbilliform eruption.
  • Not painful and no vesicles or bullae are present.
  • No ocular or mucosal involvement.
  • Cervical and Axillary LAD

• Labs
  • ALT 330 U/L
  • AST 355 U/L.
  • CBC: normal except for 16% eosinophils.
DRESS 💃

- Common Medications
  - Anticonvulsants (1 per 1000-10000)
    - Aromatic anticonvulsants (phenobarbital, phenytoin, carbamazepine)
    - Lamotrigine
  - Sulfonamides
- Other Medications
  - Minocycline, allopurinol, gold salts, dapsone
Case 2

• A 55 year-old Brazilian woman comes to see you for a rash that has been longstanding.

• Despite extensive testing physicians have not been able to determine a cause for her rash.
Hereditary Hemorrhagic Telangiectasia

- Additionally she reports that she had a adult sibling die of nose bleeds a few years ago.
- She is well-appearing with blanching red "spots" on her hands, skin, and also noticed on the tongue.
Hereditary Hemorrhagic Telangiectasia

• An autosomal dominant disorder with varying penetrance and expression characterized by diffuse telangiectasias.

• Three characteristic features are:
  • Epitaxis
  • GI bleeding
  • Iron deficiency anemia

• Visceral AVMs are usually silent but may be present in the pulmonary, cerebral, or hepatic anatomy with associated possible complications.
Case 3

• You are rounding in Africa and are seeing a 20-year-old female admitted to the ward the previous evening with altered mental status.
• She has had notable diarrhea.
• Also has what appears to be dry patches on her extremities.
Pellagra

- Exam reveals diffuse pruritic patches of the extremities and the trunk with associated thickening of the skin. Primarily distributed in photosensitive areas.
Pellagra

• Niacin deficiency
• Vitamin B3 is widely distributed in plant and animal foods. Good sources include yeast, meats (especially liver), cereals, legumes, and seeds.
• Often results from diets rich in corn and therefore absent of Niacin (Dr. Golberger in the 1900’s)
• Cardinal symptoms are the four “D’s”: diarrhea, dermatitis, delirium, and eventual death
Case 4

• While in Honduras a 55-year-old man presents to a walk in clinic with a non-painful ulcer of his foot that has not healed.
• He cannot remember injuring his foot but possibly bumped it on a log months prior.
• It started as a bump that progressed to a painless ulcer.
Leishmaniasis

• Exam reveals what appears to be a painless superficial ulcer with white-yellow fibrinous material overlying the lesion.

• No other lesions seen and no signs of surrounding cellulitis appreciated.
Leishmaniasis

• Caused by more than 20 different Leishmanial species
• Transmitted via the sand fly in exposed areas of the skin (as fly mouthparts cannot penetrate through clothing).
• Lesions may start as a pink-colored papule that enlarges into a nodule or plaque-like lesion.
• They usually ulcerate in center, spread outwards, and may resolve after months to years.
• Diagnosis: demonstration of Leishmania in biopsy or skin scraping
Case 5

• 57 year-old Puerto Rican woman presents with an “infection” on her bilateral lower legs.
• It has been present for months.
• Her rash has not responded to ointments or OTC creams.
Lipodermatosclerosis

• Exam reveals a warm, diffuse fibrinous plaque that is erythematous and present in both lower extremities.

• A course of antibiotics do not improve the rash.
Lipodermatosclerosis

- Patients with venous insufficiency can develop a fibrosing panniculitis of the subcutaneous tissue
- Think twice about a diagnosis of bilateral cellulitis.
- Also described as an “inverted wine bottle.”
- As the fibrosis increases, it may be constrictive and strangle the lower leg, further impeding lymphatic and venous flow.
Case 6

- Two sisters present to a walk-in clinic in Brazil worried about the appearance of their skin. They are concerned because it appears “unsightly.”
- Described as white spots that spread slowly across their upper torso and are otherwise completely asymptomatic and non-pruritic.
Tinea Versicolor

- Exam reveals scattered white macules of the upper torso and extremities.
Tinea Versicolor

- The causative organisms are saprophytic, lipid-dependent yeasts in the genus Malassezia.
- Lesions can be hypopigmented, hyperpigmented, or mildly erythematous.
- Confirm the diagnosis with a KOH preparation—described as "spaghetti and meatballs."
- In approximately one-third of cases, examination with a Wood's lamp will reveal yellow to yellow-green fluorescence.
Case 7

- 22-year old male who graduated from college presents with a diffuse rash which is widespread and across his whole body.
- He reports that it is slightly pruritic.
Guttate Psoriasis

• Patient has a diffuse rash across his body which has both papule and plaques.
• He does remember having a sore throat recently but has been otherwise well.
Guttate Psoriasis

• Etiology not well understood. May resolve after weeks to months or progress to chronic plaque psoriasis.
• Think strep infection and test/treat for this.
• Patients may develop koebnerization from sunburns.
Case 8

- A 63 year-old woman presents with several plaques of various sizes on her extremities.
- Nothing has seemed to help and she feels they are spreading.
- She also states that they are pruritic and steroid ointments do not seem to help.
Lichen Planus

• She also notes some lesions in her mouth as pictured on exam.
• Plaques appear purple in appearance and are located primarily on her lower extremities.
• She thinks some new lesions are appearing on her legs since bumping them on her furniture.
Lichen Planus

• The four “P’s:”
  • Pruritic
  • Purple
  • Polygonal
  • Papules or plaques

• There is an association with Hepatitis C.
• Possible association with Statins.
• Also demonstrates koebnerization.
Case 9

• A 53-year-old woman with a 5-day history of an asymptomatic rash on the upper back and upper arms with appeared “suddenly.”

• The lesions grew are neither pruritic nor painful. She has had some fevers.

• She reports a history of rheumatoid arthritis but otherwise generally healthy.
Sweet’s Syndrome

- On physical examination, the patient is febrile (102.0 °F) but vitals are otherwise normal.
- There are nodular and plaque lesions on the back and upper arms.
- CBC demonstrates a WBC count of 35,000/µL with a neutrophil predominance.
- Skin biopsy reveals a dense neutrophilic infiltrate throughout the dermis, with prominent papillary dermal edema.
Sweet’s Syndrome

• The pathogenesis is not well understood.
• May be associated with an underlying malignancy, particularly acute myeloid leukemia.
• Lesions often described as “juicy.”
• Biopsy reveals evidence of a dense neutrophilic infiltrate without evidence of leukocytoclastic vasculitis (major criteria for diagnosis).
Case 10

• A 73 year old presents with a few blisters on the upper torso of her chest. They have seemed to spread over the past few days.
• She denies any other symptoms and otherwise feels well.
Bullous Pemphigoid

- Exam reveals tense blisters that do not easily rupture on palpation. Present only on the upper anterior chest.
- She states that are somewhat very pruritic and somewhat painful.
Bullous Pemphigoid

• Characteristically, BP is an intensely pruritic eruption with widespread blister formation.
• Most common subepidermal autoimmune blistering disorder
• Elderly 60-80s
• Diagnosis relies on biopsy—particularly direct and indirect immunofluorescence microscopy.
Case 11

• 11 year-old Kenyan girl presents with a draining lesion of her upper eyelid.

• There is associated redness and swelling of the eyelid, so it is difficult for her to open her eye completely.
Cutaneous Anthrax

• On further history, the family’s cow had died a few weeks earlier and she had been sleeping on its hide.

• On exam a tender, ulcerating papule is seen of the upper eyelid with associated pre-septal cellulitis.
Cutaneous Anthrax

- Large Gm+ spore-forming rod
- Spread by contact with infected animals and animal products
- Incubation: 12 hours-7 days
- Cutaneous disease is the most common (95%)
- Begins as pruritic painless papule and spreads to an ulcer with surrounding edema.
Bad Rashes

- SJS/TEN
- RMSF
- Meningococemia
SJS/TEN

- Dusky red macules coalescing to patches
- First on the trunk then spreads to neck/face/acral
SJS/TEN

• Mucosal Involvement

• Blood in UA
SJS/TEN

- Full thickness necrosis
- <10% SJS
- >30% TEN

- Best managed in burn unit
SJS/TEN

• Common Medications
  • Sulfonamides, anticonvulsants, oxicam, NSAIDs, allopurinol, and chlormezanone

• Treatment
  • Supportive
  • IVIG, IV Cyclosporine, Imflijimab
  • Do not give Steroids!!!
  • <10% = SJS
  • 10-30% = SJS/TEN Overlap
  • >30% = TEN
RMSF

- Following tick bite (7 days)

- Starts on wrist then widespread viral exanthem and petichiae

- Fever
Meningococcemia

• Caused by *Neisseria meningitidis*

• Acute septicemia kills faster than any other infectious disease (hours)

• Fever/HA/Nausea/Neck pain

• Rash (70% of cases)
Meningococcemia
Purpura Fulminans
Questions?