In the Beginning
Proof that babies are delivered by storks
What’s the diagnosis?
Erythema Toxicum Neonatorum “E-Tox”

- Benign transient self-limiting eruption in the newborn seen in 40% of healthy full-term infants
- Follicular aggregation of eosinophils and neutrophils
- Resemble flea bites (yellow/beige papule on an erythematous base)
- Presents within first four days of life, peak at 48 hours
- Most cases resolve within five to fourteen days
- No treatment necessary
What is the diagnosis?
Distribution

- Crawling Children in diapers – typically seen on elbows and knees

- Older children and adults – typically present in folds of skin opposite to the elbow and kneecap, but spares armpits

- Other areas commonly involved include the cheeks, neck, wrists, and ankles.
Atopic Dermatitis / Eczema

- **Treatment:**
  - Avoid triggers—cold, wet, irritants, emotional stress
  - Aggressive hydration with cream based or petrolatum based moisturizer to restore skin barrier
  - Less irritating soap
  - Infants—Low potency corticosteroid ointments for maintenance
  - Older children and adults—medium potency corticosteroid ointments, sparing the face
  - Stronger corticosteroids ointments should be used for flares or refractory plaques short term only to avoid thinning of skin
  - Calcineurin inhibitors (tacrolimus or pircrolimus) – useful on face or eyelids
  - Short course oral Prednisone only for severe flares
  - Antihistamine therapy—
    - Children-Hydroxyzine, Benadryl (sedating)
    - Adults-Hydroxyzine or Doxepin
What is the diagnosis?
Seborrheic Dermatitis

- Chronic, superficial, inflammatory disease predilection for the scalp, **eyebrows**, eyelids, **nasolabial creases**, lips, ears, **sternum**, axillae, submammary folds, umbilicus, **groin**, and **gluteal crease**

- Possibly related to *Pityrosporum ovale* yeast

- Presentation: yellow, greasy, scaling on an erythematous base  
  Dandruff is a mild form / Cradle cap is an infant form

- Parkinson’s disease can often have severe refractory seborrheic derm

- Treatment: Face--Antifungal agents, corticosteroid cream, gel, sprays, and foam

- Scalp–Selenium sulfide, ketoconazole, tar, zinc, pyrithione, fluocinolone, resorcin shampoos
What’s the diagnosis?
Contact Dermatitis

- **Allergic Contact Dermatitis** – poison ivy, poison oak, poison sumac, even the skin of mangos (the sap of the tree and rind of the mango contains the oil, urushiol)

- **Irritant Dermatitis** – touching or persistent contact with an irritant

Examples – nickel found in jewelry, buttons, chemicals in nail products, dyes in clothes, scented soaps, etc.
Treatment

- Identify the cause and avoid, if possible
- Cool compresses
- Antihistamines
- Topical antipruritic agents
- Steroid Cream
What is the diagnosis?
+ Seborrheic Keratosis

- Facts: Oval, raised, brown to black sharply demarcated papules or plaques; they appear “stuck on” or “warty”

- Involving mostly chest or back but can be anywhere

- Pathogenesis: Unknown

- Treatment: Removed by liquid nitrogen, curettage, light fulguration, shave removal, and CO2 laser vaporization
What is the diagnosis?
Molluscum Contagiosum

- **Facts:** Affects young children, sexually active adults, and immunosuppressed.

- **Pathogenesis:** Pox virus via skin-to-skin contact especially if wet.

- **Appearance:** smooth surfaced, firm, dome-shaped pearly papules, many times umbilicated.

- **Treatment:** Young immunocompetent children - usually spontaneous resolution.
  - Other options include topical cantharidin, light cryotherapy, or manual extraction of core.
What is the Diagnosis?
Erythema Migrans

- **Facts**: Manifestation of Lyme disease; caused by *Borrelia burgdorferi*
- Occurs in approximately 50% of patients most commonly on legs, groin, and axilla
- 3-32 days after tick bite there is a gradual expansion of redness around an initial papule creating a target-like lesion
- Rarely pruritic or painful
- Primary and secondary lesions fade in approx. 28 days
- **Treatment**: Doxycycline 100mg BID for 10-30 days
What is the diagnosis?
Acne Rosacea

- **Facts:** Persistent erythema of the convex surfaces of the face
  - Commonly assoc. with telangiectasia, flushing, erythematous papules and pustules

- Cheeks and nose of light skinned women age 30-50 most commonly affected

- Severe phymatous changes in men

- Exacerbated by stressful stimuli, spicy food, exercise, cold or hot, and alcohol

- **Pathophysiology:** Abnormal vasomotor response to stimuli

- **Treatment:** Sunscreen, avoidance of triggers, laser, metronidazole cream, sodium sulfacetamide, sulfa cleansers and creams, azaleic acid, Low dose Tetracycline or Minocycline po daily
What is the diagnosis
Tinea Pedis

- Affects all ages but is more common in adults

- Frequently due to *Trichophyton (T.) rubrum* – often causes moccasin-type patterns of infection – lasts a long time and difficult to treat. Usually patchy fine dry scaling on the sole of the foot. In severe cases, the toenails become infected and can thicken, crumble, and even fall out

- May be vesicular or in the toe webs (more likely with *Trichophyton mentagrophytes*) - infection appears suddenly, is severe, and is easily treated

- Predisposing factors: exposed to the spores (moist damp environments, skin innately produces less fatty acid, occlusive footwear, hyperhidrosis, immunosuppression, lymphedema)

- Treatment -- topical antifungal creams with or without keratolytics such as urea, oral antifungals for nail involvement, avoidance of occlusion in damp environments, and drying soaks to assist with vesicular varieties
WHAT’S THE DIAGNOSIS?

- Sometimes itchy
- Sometimes burning type sensation
- Pressure on the skin can cause it
- Can be distressing but is not life threatening
- Can last minutes, hours or days
TYPES

- **Red dermatographism**: most common type - develops as small raised scratches on the skin which occurs on trunk.

- **Follicular dermatographism**: prominent follicular papules on the skin with a well defined background.

- **Cholinergic dermatographism**: somewhat large embedded with punctuate wheals resembling urtica. Brought on by a physical stimulus. Although this stimulus might be considered to be heat, the actual precipitating cause is sweating.

- **Delayed dermatographism**: papules develop after several hours of initial response forming deep wheal like structure.
Symptoms and Causes

- Generalized pruritis itchiness or the sensation of burning
- Irritation at one site of the body can result in mast cells in other parts of the body releasing histamine although they have not been directly stimulated
- Can be induced by tight or abrasive clothing, watches, glasses, heat, cold, or anything that causes stress to the skin or the patient
- In many cases it is merely a minor annoyance, but in some rare cases symptoms are severe enough to impact a patient's life.
Treatment Approaches

- Antihistamines
- A combination of 2 or more antihistamines may be required
- Moisturize to reduce scratching in case of dry skin
- Xolair (Omalizumab) – 150 mg SC – may relieve persistent symptoms of persistent urticaria within days
- Narrowband ultraviolet (UV)-B phototherapy and oral psoralen plus UV-A light therapy have both been used as treatments for symptomatic dermographism – relapse often occurs in two to three months
- Decrease and/or avoid symptom triggers
What’s the diagnosis?
Pityriasis Rosea

- Benign, self-limited eruption
- Generally affects adolescents and young adults as a response to a viral infection
- Most commonly seen between ages 10 – 35 and during pregnancy

Treatment

- Directed to symptom relief with antihistamines for itching
- Moderate-potency steroids may be used for itching if necessary
- Spontaneous resolution usually occurs within 1-2 months.
What is the diagnosis?
Staph aureus (poss. MRSA)

- Facts: Gram positive cocci appear usually as pustules, furuncles, or erosions with honey-colored crusts
- Staph aureus is normal inhabitant of the nares
- Treatment: MSSA – Cephalexin*
- Previously MRSA was only nosocomial, but now is widespread and quickly becoming a community acquired epidemic
- If lesion purulent or not responding to initial treatment*
  MRSA Community Acquired– TMP-SMX (most strains sensitive), Clindamycin, or Doxycycline
  Treat nares with mupirocin
  I & D of abscess
What is the diagnosis?
Rocky Mountain Spotted Fever

- Facts: centrifugal vasculitis manifested by widespread blanching macules and papules most prominent on the extremities especially palms and soles – onset 2-5 days after flu-like symptoms
- Associated with severe headache, fever, other flu-like symptoms, non-pitting edema of b/l ankles
- Thrombocytopenia, hyponatremia, and/or elevated liver enzyme levels are often helpful predictors of RMSF
- Rickettsia rickettsii infection after wood tick bite
- Diagnosis: R. Rickettsii organism blood test – antibodies often not present during first week of illness
- Treatment: doxycycline 100mg bid x 7 – 14 days
What’s the diagnosis?
Shingles

- The recurrent form of Varicella infection

- Cutaneous eruption consists of clusters of vesicles following unilateral dermatomal distribution.

- Clinical symptoms may include asymptomatic rash, pruritis, tenderness, to extreme pain
Herpes Zoster - Shingles

- Post-herpetic neuralgia is the most common complication of herpes zoster.

- It usually occurs in 10 – 15 % of patients in young adults and more than 50 % of patients who are over age 60.

- In most cases, post-herpetic neuralgia resolves within the first 12 months.

- Prevention – Zostavax for individuals 60 and above (recent FDA approval for individuals 50 and above)*

- Treatment – Antiviral medications acyclovir, famciclovir or valacyclovir reduce the pain and the duration of shingles.
Working On More Than A Tan
AND
Higher risk for squamous cell
+WHAT’S THE DIAGNOSIS?
Actinic Keratosis (AK)

Risk Factors

- Hair color is naturally blond or red
- Fair skin
- Eyes are naturally blue, green, or hazel
- Skin freckles or burns when in the sun
- 40 years of age or older*
- Weakened immune system
- Roofers (have a higher risk because they work with tar and spend their days outdoors)
- AK’s appear earlier in people who use tanning beds and sun lamps*
+ Treatment for AK

**PROCEDURES**
- Cryotherapy
- Chemical peel
- Curettage – possibly followed by Electrosurgery
- Photodynamic therapy (PDT)
- Laser resurfacing

**MEDICATIONS**
- 5-fluorouracil (5-FU) cream
- Diclofenac sodium gel
- Imiquimod cream
- Ingenol mebutate gel
Non-Melanoma and Melanoma Skin Cancer by the Numbers

- How many people get skin cancer?
- Skin Cancer is the most common of all cancers
- About 3.5 million cases of basal and squamous cell skin cancer are diagnosed in this country each year
- Melanoma will account for more than 73,000 cases of skin cancer in 2015*

*American Cancer Society 4-2015
+ What is the Diagnosis?
Basal Cell Carcinoma

- Facts: Common in fair-skinned people with UVR (blistering sunburns as a child) and immunosuppression

- Usually appears as a small waxy, translucent, “pearly” or “rolled border” around a central depression that may be ulcerated, crusting or bleeding; telangiectasias course throughout

- Commonly on the head or neck (esp nose)

- These tumors grow slowly and more laterally; rarely metastatic

- Treatment: Biopsy suspected lesions
  - Imiquimod if superficial lesions, photodynamic therapy or excision with clean margins;
  - MOHS surgery if cosmetic area or extensive, invasive lesion
What is the diagnosis?
Squamous Cell Carcinoma

- Common in fair-skinned people from UVR.

- Usually at site of initial actinic keratosis; appears from an indurated base and becomes elevated with telangiectasias becoming progressively nodular and ulcerated—hidden by a thin crust

- Usually on the face, ear, lips, mouth or dorsal hand and arms

- Increased likelihood with immunosuppression

- Can develop into large masses and spread deeper into the tissues and occasionally to other parts of the body

- Treatment: Biopsy suspected lesion; Electrodessication and curettage x 3 and/or 5-FU, or imiquimod if small & superficial
What is the diagnosis?
Melanoma

- Facts: Cancer of the pigment producing cells in the epidermis, or upper surface of the skin.
- Frequently metastatic if not found early
- Most common locations are the exposed parts of the skin, particularly the face and neck
- Hereditary forms have a predilection for areas of sun protection—palms, soles, fingernails and vaginal mucosa
Melanoma

Variants of melanoma

- **lentigo maligna** - flat and thin variant, frequently presenting as a large freckle

- **superficial spreading** - flat, or only slightly raised, and a bit more uniform in color

- **nodular melanoma** – elevated and often rounded growth of the cancer

- **acral lentigenous** - occurs on the palms and soles of the hands and feet, or in the cuticles or nail bed

- **desmoplastic** - does not often produce pigment and is the most difficult to diagnose without a biopsy
Asymmetry - Melanoma lesions are typically irregular in shape. Benign moles are round.

Border - Melanoma lesions typically have uneven borders, while benign moles have smooth, even borders.

Color - Melanoma lesions often contain many shades of brown or black; benign moles are usually one shade.

Diameter - Melanoma lesions are often more than 5 millimeters in diameter (the size of a pencil eraser); benign moles are smaller.

Evolutionary Change - Documented change of appearance in the lesion over time.
The American Joint Committee on Cancer (AJCC) TNM System

Three Key Components

- **T** - tumor (how far it has grown within the skin - thickness and other factors – ulceration and mitotic rate)

- **N** - spread to nearby lymph nodes

- **M** - whether the melanoma has metastasized to distant organs, which organs it has reached, and on blood levels of LDH.

Two types of staging for melanoma:

- **Clinical staging** - what is found on physical exam, biopsy/removal of the main melanoma, and any imaging tests that are done.

- **Pathologic staging** - determined after node biopsy results – may be higher than clinical stage
Melanoma

- Melanoma Diagnostics Indicators

- **Breslow Thickness** - the Breslow's Depth of Invasion is the most important determinant of prognosis for melanomas

- Increased tumor thickness is correlated with metastasis and poorer prognosis

- **Breslow Thickness and Survival Rate:**
  - <1mm: 5-year survival is 95-100%
  - 1-2mm: 5-year survival is 80-96%
  - 2.1-4mm: 5-year survival is 60-75%
  - >4mm: 5-year survival is 37-50%
+ Melanoma

- MOHS may be an option for lentigo maligna which has frequent asymmetrical growth patterns

- Sentinel Node Biopsy in pt’s whose melanoma is thicker than 1 mm, or if ulceration present

- Adjuvant therapy if node positive or increased tumor thickness
Melanoma
Best of success on your boards!