

Give Me Some Skin! Geriatric Dermatology For the Non-Dermatologist

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Disclosure

"I have no relevant affiliations or financial relationships with commercial interests that could constitute a conflict of interest with this presentation."



Objectives

- Recognize common dermatological conditions presenting to geriatricians
- Discuss clinical pearls for common skin conditions in older patients
- Apply therapeutic recommendations to patients with common dermatological disorders

First, the Bad News...



Our Skin Is Going to Age!

- **Intrinsic Aging:**
 - Changes of skin due to normal maturation
- **Extrinsic Aging:**
 - Changes of skin produced by outside factors
 - Ultraviolet light exposure
 - Smoking
- **Co-Morbidities:**
 - Ex: diabetes, arteriosclerosis, congestive heart failure, malignancy

Intrinsic Aging

- **Epidermal Changes:**
 - Flattening of epidermal rete ridges -thin skin
 - Increased melanocyte density on sun-exposed skin-freckles, melasma
 - Decreased density and responsiveness of Langerhans cells-infection, skin cancer
 - Keratinocyte dysfunction-barrier dysfunction
- **Dermal Changes:**
 - Decreased collagen production/density-thin skin
 - Increased production of collagenases, metalloproteinases- thin skin, fragility, bruising
 - Clumping of elastin fibers-solar elastosis
- **Fat Changes:**
 - Loss of fat on cheeks/distal extremities
 - Gain of fat on waist of men, thighs of women



Intrinsic Aging (cont...)

- **Nail Changes:**
 - Decline in growth, thinning of nail plate, longitudinal ridging and splitting



Extrinsic Aging

- **Ultraviolet Exposure:**
 - Lowers life span of keratinocytes, fibroblasts, langerhans cells
 - Thinning of the epidermis
 - Decreases dermal thickness
 - Deposition of abnormal elastotic material
 - Mutations of tumor suppressor genes



N Engl J Med;2012;19;366

Extrinsic Aging

- **Smoking:**
 - Decreases oxygenation to skin
 - Increases free radical production



Co-Morbidities

- **Diabetes:** infection
- **CHF:** stasis dermatitis
- **Immunosuppression:** skin cancer, shingles, infection
- **Anticoagulation:** Bruising

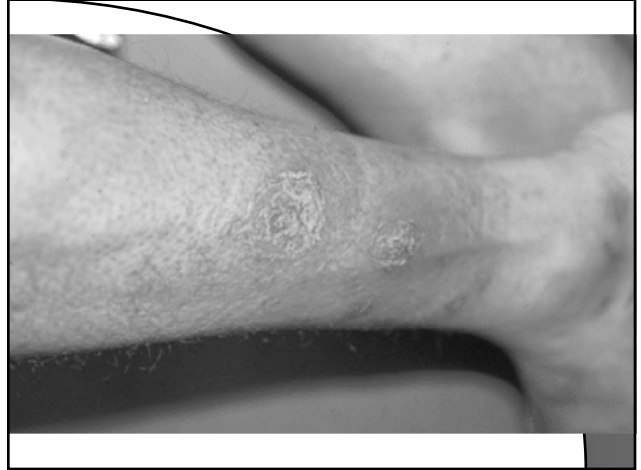
Dermatology Pearl: Know 3 Generic Topical Steroids

- **Mild Potency:** Desonide 0.05% cream
 - Face, axillae, groin, (3 days on/ 3 days off)
- **Moderate Potency:** Triamcinolone 0.5% cream or ointment, 454 gram (1 pound jar)
 - Trunk, extremities (5 days on/ 2 days off)
- **Strong Potency:** Clobetasol propionate 0.05% cream or ointment
 - Trunk, extremities (5 days on/ 2 days off)

Common Dermatology Conditions in Geriatric Patients

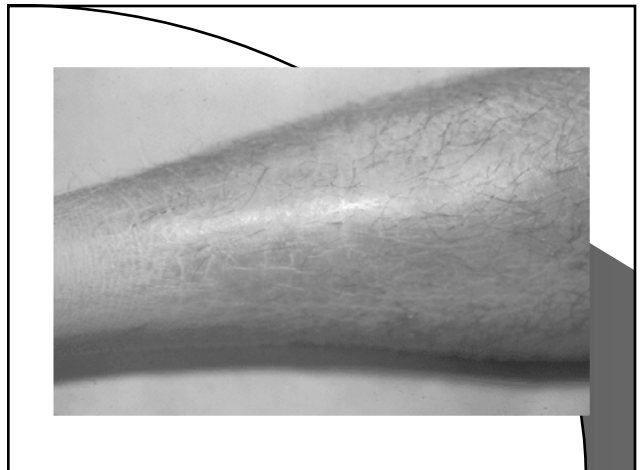


Eczematous Dermatitis



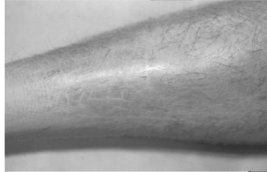
Numular Eczema

- Clinical:
 - Discrete, itchy, coin-shaped scaly plaques
 - Lower legs, upper extremities, trunk



Asteatotic Eczema

- “Winter itch,” eczema craquele,
- Barrier dysfunction
- Dry environments, hot bathes, irritating soaps.
- Dehydrated skin that shows erythema, dry scaling, fine crackling
- “Cracked porcelain”
- Anterior shins, arms, flank



Treatment of Eczema

- Soak and grease with petroleum emollients
- Occlusion wraps
- Avoid hot baths, irritating soaps
- Mild or high potency topical steroids BID
 - triamcinolone 0.1% cream/ointment
 - clobetasol propionate cream/ointment
- Secondary infections treated with antibiotics covering staphylococci



Seborrheic Dermatitis

- Clinical:
 - Itchy, scaly plaques on the scalp, eyebrows, nasolabial folds, external ear meatus, chest, pubic region
 - Increased incidence in Parkinson's, immunosuppression
 - *Pityrosporum ovale* association



Seborrheic Dermatitis

- Treatment:
 - Ketoconazole 2% cream topically BID
 - Low or mid potency steroid (Hydrocortisone 2.5% cream or desonide cream) applied 3 days on/ 2 days off as needed

Xerosis (Itching)

- Workup in geriatric patient:
 - CBC with diff
 - LFTs
 - Cr/BUN
 - Glucose
 - TSH
- Also think medications, prodromal bullous pemphigoid, scabies, folliculitis, Grover's
- Age-appropriate malignancy work-up

Skin Maintenance Pearls

- Skin Cleansing: Gentle, non-fragrance, no color, neutral pH. Avoid wipes. Rinse well, no residual soap.
- Skin hydration: emollient therapy (petrolatum, ceramides, vegetable oils)
- -use post bathing, under occlusion
- Irritant protection: Barrier products (zinc oxide, titanium dioxide, silicone-based) in prone areas
- Daily photo-protection: SPF 30 daily

Infections





Bacterial Infections

- Staphylococcus and Streptococcus
- Trauma, disease, malnourishment, insect bites break down skin barrier-open to infection
- Seen at nasal cannula sites, CPAP masks of hospitalized patients

Bacterial Infections

- Community-acquired methicillin-resistant staph aureus (MRSA) more common in institutions

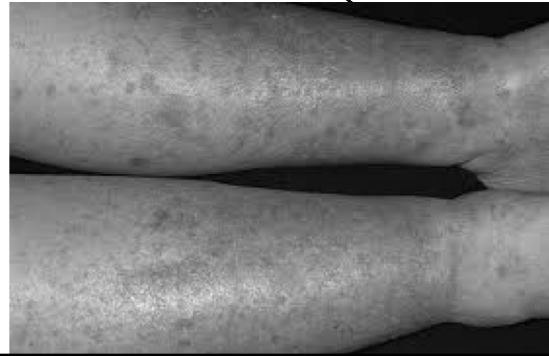


Treatment of Infections

- CULTURE! Swab, takes 48 hours to grow
- Request tetracycline sensitivity
- Topical antibiotic BID
- Appropriate oral antibiotic
- Treat navel, nares, perianal region twice a day for 2 weeks with mupiricin ointment
- Chlorhexidine topical antiseptic from neck down (toxic to cornea and auditory canal)

Vascular Infections?

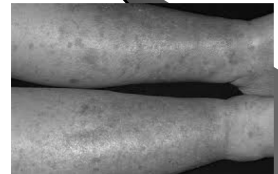
Is This Bilateral Cellulitis of the Legs?



Dermatology Pearl:
There is no Such Thing as
“Bilateral Cellulitis” of the
Lower Extremities

Stasis Dermatitis

- **Clinical:**
 - #1 Hospital Consult
 - Erythematous plaques on shins/ankles
 - Associated pitting edema, post-inflammatory hyperpigmentation
 - Itching
- **Etiology:**
 - Chronic venous insufficiency/valvular incompetence
 - Cardiac, renal, hepatic etiology
 - Prolonged standing
 - Orthopedic surgery/prosthetic



Stasis Dermatitis Treatment

- Not cellulitis! (especially if bilateral). Although breakdown can predispose to infection
- Fitted (in a.m.) compression stockings, knee-highs, 20-30mm Hg, wear daytime/off night
- Elevation of legs
- Triamcinolone 0.1% ointment to red, itchy areas only
- Petroleum ointment/gentamycin ointment to open erosions



Intertrigo

- *Candida* infection
- Folds of skin, areas of moisture and heat
- Erythematous plaques and maceration in fold regions



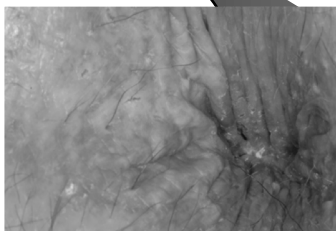
Intertrigo

- Anti-yeast/fungal BID to involved area
- Non-steroidal anti-inflammatory pimecrolimus cream or tacrolimus ointment BID
- Prevention methods to keep regions dry
 - Blow dryer, baby powder, weight loss

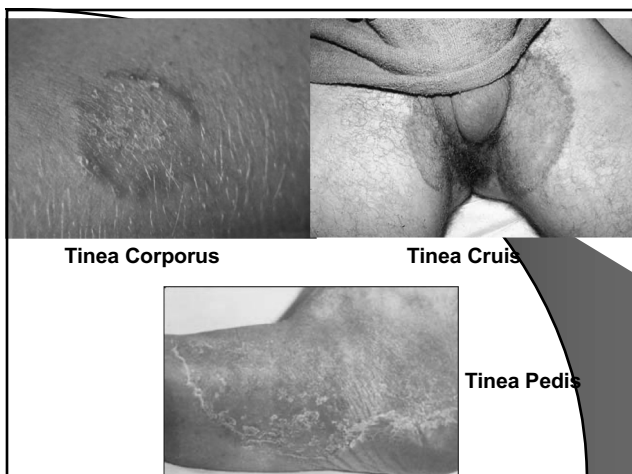


Perianal Dermatitis

- Clinical:
 - 50% nursing home pts
 - Skin contact with moisture & chemical irritants under occlusion
 - Skin inflammation & breakdown
 - Risk of infection, pressure ulcers
- Treatment:
 - Avoid irritants
 - Barrier cream/paste
 - Limited time topical steroid/antifungal



Fungal Infections



Fungus Pearls

- Immunosuppression predisposition
- If “eczema” rash is not improving in 1-2 weeks, consider biopsy, consider KOH for fungus.
- Fungal infections can predispose to cellulitis.

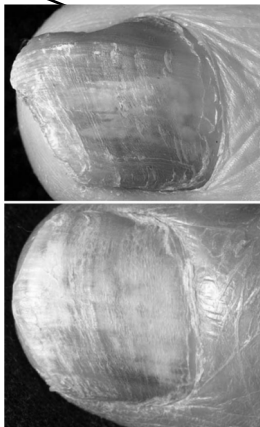
Dermatology Pearl: Don't Use Steroid/Antifungal Combination Creams

- Typically treats occluded areas
- Clotrimazole may be effective in treating tinea
- High-potency steroid component may contribute to skin atrophy
- Restrictions on treatment duration



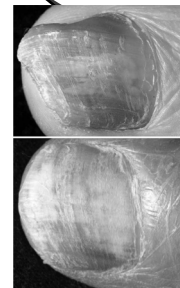
Treatment for Fungus

- Use single agent antifungal x 4 weeks:
- Azoles: econazole, oxiconazole, clotrimazole
- Allylamines: naftifine, terbinafine
- Ciclopirox olamine



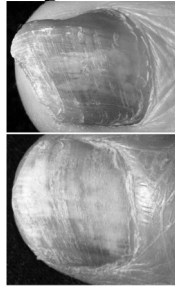
Onychomycosis Pearls

- May predispose to secondary *Candida* or bacterial infections
- Obtain H&E diagnosis, culture FIRST
- Need to rule out yeast, bacterial infections



Onychomycosis Treatment

- Note: May recur post treatment
 - 1:1 Vinegar: Water soaks
 - Topical ciclopirox 8% solution
 - Efinaconazole 10% topical solution (52 weeks)
 - Tavaborole 5% topical solution (52 weeks)
 - Oral terbinafine (6 weeks)
 - Oral itraconazole not used anymore

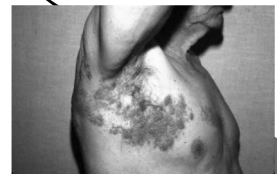


Viral Infections



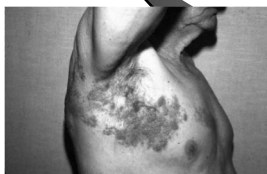
Varicella Zoster (Shingles)

- Reactivation of the varicella-zoster virus (VZV) that causes chickenpox in kids
- After acute infection, VZV remains dormant in dorsal root ganglion for years
- With trigger: stress, immunosuppression, virus re-activates in dermatomal pattern



Varicella Zoster (Shingles)

- Pain, itching, burning
- Headache, malaise, fever
- Vesicles on red base in dermatomal distribution.
- Rarely crosses midline
- After 3-5 days, crust. Resolves over 2 weeks.
- Postherpetic neuralgia a problem-highest incidence in elderly



Herpes zoster ophthalmicus

- Zoster lesions on the tip of the nose (Hutchinson sign)
- Keratitis may be followed by severe iridocyclitis, secondary glaucoma, or neuroparalytic keratitis
- Consult Ophtho!



Treatment for Herpes Zoster

- Antiviral therapy within 72 hours of onset of rash decreases the extent and duration of pain
 - Acyclovir: 800mg 5x/day x 7 days
 - Valacyclovir 1 gram po TID x 7 days
 - Famacyclovir 500mg po TID x 7 days

Postherpetic Neuralgia

- Persistent pain 90 days post rash
- 10-13% of patients >50 y/o, increase w/ age
- Results from injury to peripheral nerves
- Consider Pain Management Consult
 - Topical lidocaine 5% gel
 - Capsaicin cream: burning
 - Non-narcotic analgesics, Narcotics
 - Tricyclic antidepressants
 - Gabapentin
 - Nerve blocks
 - Medical Marijuana

Zoster Vaccination

- Recombinant zoster vaccine (RZV) preferred over zoster live vaccine (ZLV) Approved 10/17.
- Indication and CDC Recommendations:
 - Prevention for immunocompetent patients > 50 y/o)
- 0.5mL dose IM at 0 and 2-6 months later
- No head to head trials with zoster live vaccine
- Limited data on patients previously vaccinated with ZLV. Can give 2 mo after receiving ZLV.
- Contraindication: allergy, active infection
- Problems with availability

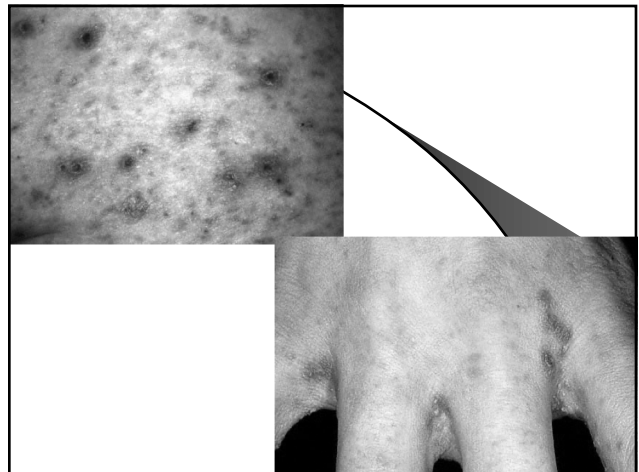
CDC Morbidity and Mortality Weekly Report 1/26/2018

RZV & ZVL Vaccination Studies

- Recombinant vaccine (followed 3.5 yrs):
 - Efficacy 96.6% (50-59), 97.4% (60-69), 91.3% (70-79)
 - Prevent PHN 91.2% (>50), 88.8% (>70)
- Live vaccine (followed 1.3 yrs)
 - Efficacy 70% (50-59), 64% (60-69), 38% (>70)
 - Prevent PHN 65.7% (60-69), 66.8% (>70)
 - 6 years post-vaccination <35% efficacy, 9-11 yrs NSS
- No difference in SEs
- Recombinant virus vaccination prevented more disease at lower cost than live virus

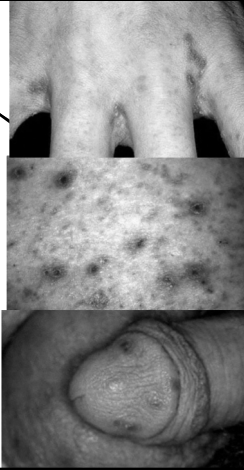
CDC Morbidity and Mortality Weekly Report 1/26/2018

Parasitic Disease



Scabies

- Nursing homes, institutions
- Ask about spouse, roommate
- Caused by mite
- Very itchy
- Erythematous papules on trunk and extremities
 - Abdomen and genital
- Furrows (female mite)
- Diagnosis:
 - Scraping of furrow with oil/microscopic identification of mite, ova, feces



Treatment of Scabies

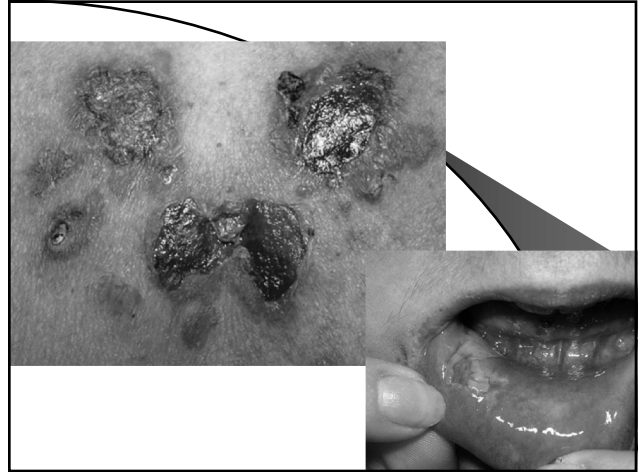
- Oral ivermectin (200 mcg/kg) once, then repeat in 1 week
- Permethrin 5% cream topically from neck down, then repeat in 1 week
 - Wash clothing/sheets in am in hot water
 - Hang non-washable clothing items for 3 days
 - Do not have to treat pets
- Antihistamines not very helpful
- Triamcinolone 0.1% cream topically BID (5 days on/2 days off) to involved itchy areas

Blistering or Bullous Diseases



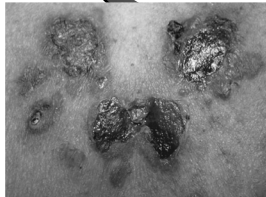
Bullous Pemphigoid

- Autoimmune disease against bp antigen 180 of hemidesmosome of basement membrane of skin
- Patients > 50 years old
- Drugs: Furosimide, penicillins, antipsychotics
- Clinical:
 - Tense blisters on skin of extremities and trunk
 - Very itchy (may have itching before onset of blisters)



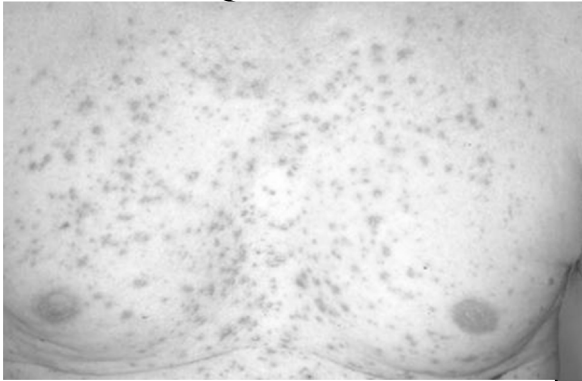
Pemphigus Vulgaris

- Autoimmune blistering disease against desmoglein 3 in epidermis
- Skin and mucosa
- Painful flaccid blisters and erosions



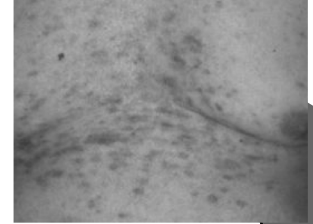
Treatment of Pemphigoid/Pemphigus

- Chronic disease!
- Oral steroids (1mg/kg/day) until cessation of new lesions, then gradual taper
- May use high potency topical steroids for localized disease
- Alternative systemic therapy:
 - Azithiaprine, cyclosporine, etc.



Grover's Disease

- Transient dyskeratosis
- Older men
- Warm humid environments, hospitalization
- Very itchy
- Erythematous papules on trunk



Treatment of Grover's Disease

- Prevention of warm, humid areas
- Topical steroids (0.1% triamcinolone cream 454g applied BID 5 days on, 2 days off)
- Lubrication
- Antihistamines

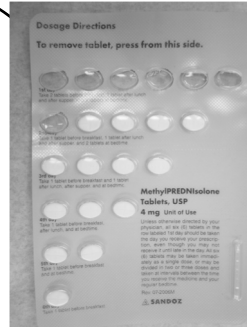
Corticosteroid Pearl:

- If you're going to give an oral steroid, then GIVE an oral steroid!



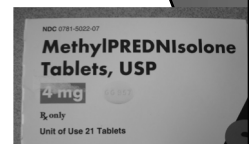
Methylprednisolone Dose Packs

- Oral methylprednisolone 4mg tablets
- Number of pills given a day are gradually reduced
- 21 pills: 6 taken on day 1
 - 5 on day 2
 - 4 on day 3
 - 3 on day 4
 - 2 on day 5
 - 1 on day 6, then stop.



Problem with Methylprednisolone Dose Packs

- Starts with too low of a dose
- Finishes too quickly
- May lead to rebound of dermatoses



Oral Steroid Dosing

- Acute dermatoses
 - Oral prednisone 1mg/kg/day dosing, followed by gradual taper
 - Ex) 60mg/40mg/20mg over 3 weeks/15 days
 - OR
 - Use higher Methylprednisolone pack dose (32mg/day for first 3 days, 16mg/day for next 4 days)

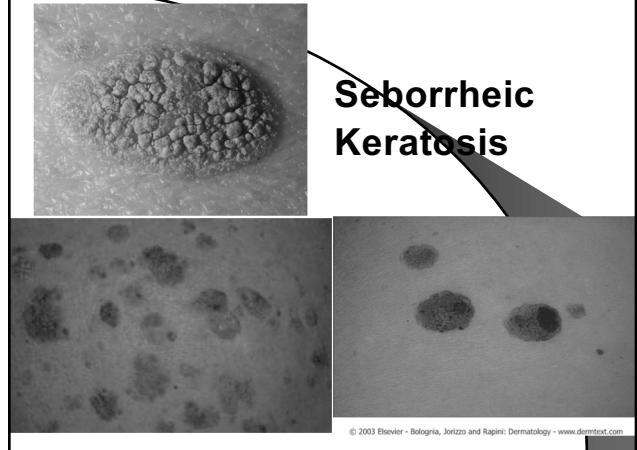
Know Steroid Side Effects

- | | |
|---|---|
| <ul style="list-style-type: none"> • Musculoskeletal <ul style="list-style-type: none"> – Osteoporosis, Myopathy • Ophthalmologic <ul style="list-style-type: none"> – Cataracts • CNS <ul style="list-style-type: none"> – Anxiety, Insomnia, Psychosis | <ul style="list-style-type: none"> • Endocrine <ul style="list-style-type: none"> – Hyperglycemia – Hyperlipidemia • Cardiovascular <ul style="list-style-type: none"> – Hypertension – LE edema • Infection <ul style="list-style-type: none"> – Immunosuppression • GI <ul style="list-style-type: none"> – Gastritis |
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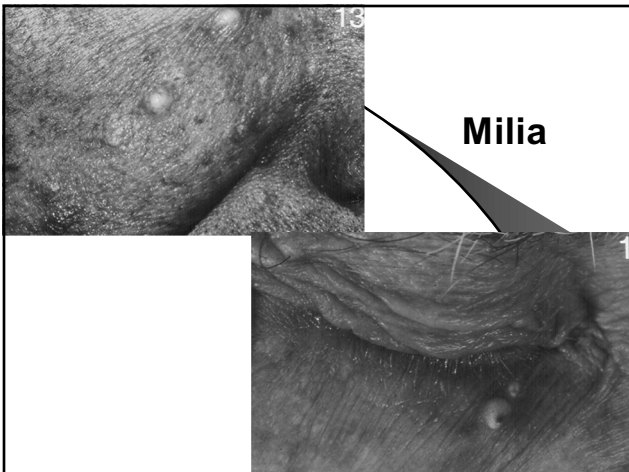
Benign Tumors of the Skin



Seborrheic Keratosis

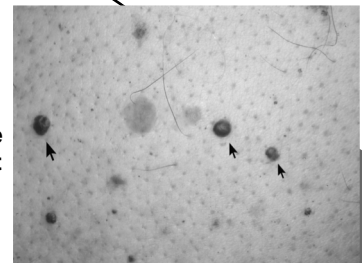


Milia



Angiomas

- Benign growths of capillaries
- Trunk
- Hereditary (choose better parents next time)
- No treatment necessary, unless bleeds

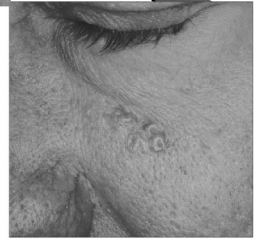
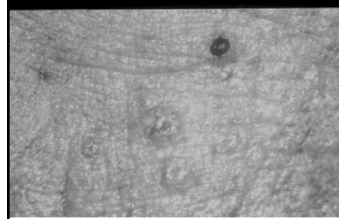


Purpura

- Causes:
 - Medications (anticoagulation, steroids)
 - Actinic damage
 - Inadvertent trauma

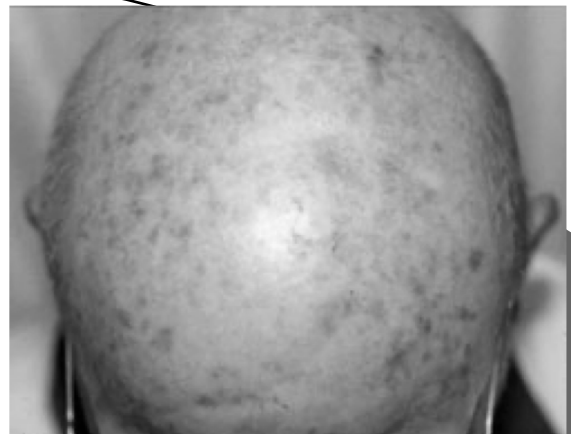


Sebaceous Hyperplasia



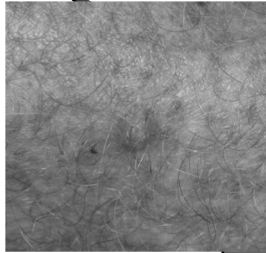
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Pre-malignant Tumors



Actinic Keratoses

- Tumors of epidermis found on sun-exposed skin
- 83% of AK patients are 55 or older and 62% are Males
- Controversy if AKs are precancerous lesions or spectrum of SCC in-situ.
- Progression to SCC between 0.1-10%.



Source: Miller DL et al. JAAD 1994;30:774-8

Treatment of Actinic Keratoses

- Cryosurgery
- Topical 5-fluorouracil cream
- Topical imiquimod cream
- Topical ingenol mebulate
- Chemical peels
- Photodynamic therapy with levulinic acid



Skin Cancer



Skin Cancer Trends in Western PA

- Large population % of Skin type I, II
- Aging population
- Military service
- Poor weather leads to bad habits
 - Holidays with intense UV exposure
 - Poor education on sun protection
 - Indoor tanning bed use

3 Main Types Of Skin Cancer

Basal Cell
Carcinoma

**2.8
Million**

cases diagnosed every
year

Squamous Cell
Carcinoma

700,000

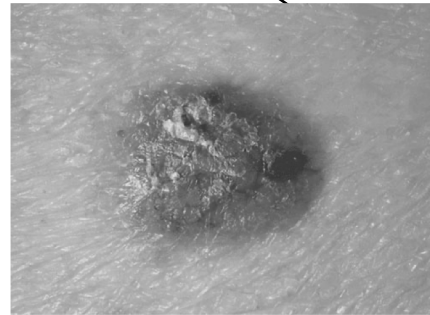
cases diagnosed every
year

Melanoma

76,000+

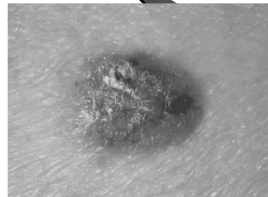
cases diagnosed every
year

Basal Cell Carcinoma



Basal Cell Carcinoma

- Most common malignancy in humans
- Risks: UV exposure, ionizing radiation
- Clinical:
 - Red or flesh colored plaque with telangiectasias.
 - Sun exposed skin.

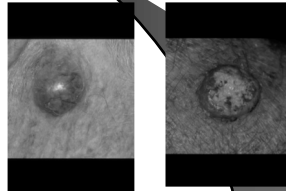


Squamous Cell Carcinoma



Squamous Cell Carcinoma

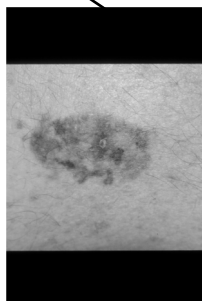
- **Risks:** UV exposure, HPV, Burn scars
- **Clinical:**
 - Erythematous, scaling erosive plaque
 - Sun-exposed skin
 - Risk of metastasis:
 - Tumor diameter >2cm
 - Depth of invasion
 - Poor histology
 - Perineural invasion
 - Location(ears, lips)



Treatment of Non-Melanoma Skin Cancer

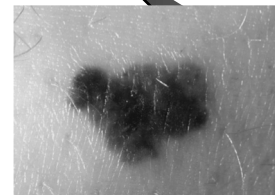
- Shave or punch biopsy for diagnosis
- Curettage and Electrodessication
- Imiquimod cream: sBCCs >2cm, trunk
- Cryosurgery: 30 sec, -50 C
- Excision with clinical margins (4mm)
- Mohs surgery

Melanoma



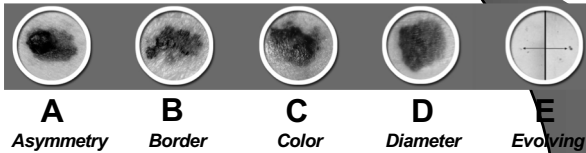
Melanoma

- **Risks:** Intermittent UV exposure, Family History
- **Clinical:**
 - Men: trunk most common
 - Female: legs most common
 - Can appear anywhere
 - Prognosis based on Breslow depth, ulceration, mitotic activity



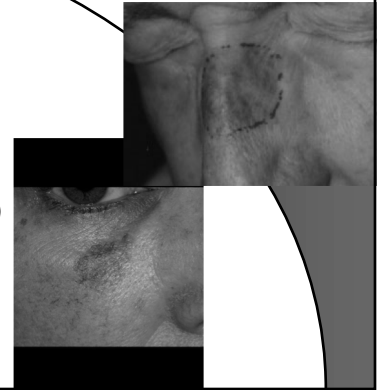
Melanoma Detection

- Moles with certain characteristics – the ABCDEs – are early warning signs of melanoma.



Melanoma

- Superficial spreading-most common
 - All populations
- Lentigo maligna (melanoma in-situ)
 - Older population
 - Sun-exposed skin
 - Freckle gone bad



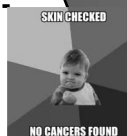
Dermatology Pearl: Biopsy Entire Pigmented Lesion!

- Darkest part of mole may not be the most histologically atypical part of that mole
- Upstaging of Breslow's depth occurred in 21% of partial biopsied moles after re-excision
Karimipour et al. JAAD 2005;52:798-802.



Dermatology Pearls: Preventative Measures

- Sunscreen with SPF 30 every am
- Protective clothing, wide-brim hat with UPF in material!
- Niacinamide 500mg orally BID
- Tretinoin 0.05% cream topically qhs
- Skin cancer screenings with board-certified dermatologist
 - Self skin exams



SHOWING MY FAKE ID TO THE BOUNCER



Dermatology Surgery Pearls

- Check blood pressure before procedure
 - Bleed risk, caution with lidocaine with epinephrine
- Use pressure bandage for any procedure
- Assess implantable cardiac device status
- Avoid discontinuing anticoagulation
 - Bleeding better than perioperative MI/stroke/emboli
- Drug-drug interaction with antibiotics
 - Ex) Cipro with warfarin or sotalol

Thank You!



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