Disclosure

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

- **Dermal Changes:**
  - Decreased collagen production/density - *thin skin*
  - Increased production of collagenases, metalloproteinases - *thin skin, fragility*
  - 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
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
Common Dermatology Conditions in Geriatric Patients
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)
Eczematous Dermatitis
Numular Eczema

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

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

- Lichen simplex chronicus, prurigo nodularis, neurotic excoriations
- Thickened, scaly plaques on reachable parts of body
- Habitual, need to break habit
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
Help Me Doctor!!!
Dermatology Pearl: Reconsider Use of Methyprednisolone Dose Packs
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
Dermatology Pearl:

If you’re going to give an oral steroid, then GIVE an oral steroid!
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 Methyprednisolone pack dose (32mg/day for first 3 days, 16mg/day for next 4 days)
Know Steroid Side Effects of Steroids!

- **Musculoskeletal**
  - Osteoporosis, Myopathy

- **Ophthalmologic SE**
  - Cataracts

- **CNS**
  - Anxiety, Insomnia, Psychosis

- **Endocrine**
  - Hyperglycemia
  - Hyperlipidemia

- **Cardiovascular**
  - Hypertension

- **Infection**

- **GI**
  - Gastritis
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!
- Request tetracycline sensitivity
- Topical antibiotic BID
- Appropriate oral antibiotic
- Treat navel, nares, perianal region twice a day for 2 weeks with mupiricin ointment
- Clorhexidine topical antiseptic from neck down (toxic to cornea and auditory canal)
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
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

- Combination creams:
- Clotrimazole (imidazole anti-fungal)
- Betamethasone dipropionate (class I steroid)
Problems with Steroid/Antifungal Creams

- Typically treats occluded areas
- Clotrimazole may be effective in treating tinea
- 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

- 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% topcial 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.
- Postherpatic 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!
Zoster in the Immunocompromised

Bullous ecthymatous zoster

Disseminated zoster
Postherpetic Neuralgia

- Defined as pain that persists in the affected area for more than one month after resolution of the rash
- Age related
  - One half of patients older than 60
- Other neurologic complications include motor nerve paralysis, tinnitus, vertigo, deafness, loss of taste, urinary retention, hyperhidrosis, etc
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

- 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
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
Vascular Disorders
Dermatology Pearl:
There is no Such Thing as “Bilateral Cellulitis” of the Lower Extremities
Stasis Dermatitis

Clinical:
- 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 can predispose to infection
- Fitted (in a.m.) compression stockings, knee-highs, 20-30mm Hg, wear during day (Jobst or Medi)
- Elevation of legs
- Triamcinolone 0.1% ointment to red, itchy areas only
- Petroleum ointment/gentamycin ointment to open erosions
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
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:
  - Azithiaprime, 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)
- Antihistamines
Benign Tumors of the Skin
Seborrheic Keratosis
Seborrheic Keratosis
Variants

Dermatosis Papulosis Nigra

Pigmented Seborrheic Keratosis
Milia
Sebaceous Hyperplasia
Not-So Benign Tumors
“You’re parents give you 2 things: money and skin...some more than others.”

-Marion M. Vujevich, M.D.
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
Pre-malignant Tumors
Actinic Keratoses

Macular AK

Papular AK
Actinic Keratoses

Hypertrophic AK

Cutaneous Horn
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
Tumors of the Skin

- Malignant Tumors
  - Basal Cell Carcinoma
  - Squamous Cell Carcinoma
  - Melanoma
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 Electrodeessication
- Imiquimod cream: sBCCs >2cm, trunk
- Cryosurgery: 30 sec, -50 C
- Excision with clinical margins (4mm)
- Mohs surgery
Excision with Clinical Margins

5-year Cure Rates:
- Basal cell carcinoma: 95% (with 4mm clinical margin)
- Squamous cell Carcinoma: 95% (with 4-6mm clinical margin)

References:
5-year Recurrence Rates with Basal/Squamous Cell Carcinomas

- Mohs micrographic Surgery: 1-2%
- Excision with Clinical Margins: 5%
Melanoma
Melanoma

- **Risks:** Intermittent UV exposure, Family History

- **Clinical:**
  - Men: trunk, Female: legs, but can appear anywhere
  - Prognosis based on depth
Melanoma

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

A  Asymmetry
B  Border
C  Color
D  Diameter
E  Evolving
Melanoma

- **Superficial spreading** - most common
  - All populations

- **Lentigo maligna** (melanoma in-situ)
  - Older population
  - Sun-exposed skin
  - Brown macule with ABCDEs
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
  
Dermatology Surgery Pearls

- Treat HTN seriously
  - Increased bleeding
  - Caution with lidocaine with epinephrine

- Be careful with stopping anticoagulation before skin cancer surgery
  - It’s better to accept a higher likelihood of bleeding than risk patient to thromboembolic event

- Drug-drug interaction with antibiotics
  - Ex) Cipro and Coumadin
Dermatology Pearls: Preventative Measures for High Risk Patients

- 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
Thank You!

"I don't think of my skin as saggy... I think of it as relaxed-fit!"

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