Common Dermatological Issues in the Elderly

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I have no relevant conflicts of interest.

PI for clinical trial for Pfizer, consultant for UCB, speaker for psoriasis foundation

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Objectives

Know and understand:

- Normal age-related changes in skin and photoaging
- The diagnosis and treatment of skin conditions common in older adults
- Recognizing benign vs concerning skin problems in the elderly

Normal skin changes

Dermatologic changes with aging

- Epidermal and dermal changes
- Reduced lipids
- Slower wound healing
- Lower immune function
- Reduced collagen
- Hair changes

Epidermal aging

- In youth, epidermis interdigitates with dermis
- With aging, the interdigitations flatten, resulting in:
  - Reduced contact between epidermis and dermis
  - Decreased nutrient transfer
  - Increased skin fragility
  - Easy bruising

Lipids and Aging

- Aging is associated with decreased lipids in the top skin layer
- Decreased sebaceous gland and sweat gland activity
- Reduction in SQ fat

  - Dryness and roughness
  - Decreased barrier function

Environmental factors for skin aging

- UV exposure
- Pollution
- Lifestyle
  - Diet
  - Alcohol
  - Smoking
  - Sleep
  - Stress

Photoaging: The Effects of UV Exposure on Skin

- UV light causes:
  - DNA damage
  - Decreased DNA repair
  - Oxidative and lysosomal damage
  - Altered collagen structure

Preventing photodamage

- Sunscreens: > SPF30 daily
  - Active ingredients:
    - Zinc oxide
    - Titanium dioxide
- Avoid direct sunlight – provide covers at nursing homes
- Use protective clothing, including hats
  - UPF (ultraviolet protective factor)
- Use sunglasses

Skin conditions

Case 1

- 67 yo male with Parkinsons Disease presents with red flaky skin on the forehead, eyebrows, nasolabial folds, and chin
- Upon further questioning- endorses rash on the chest and scalp

Photo courtesy of aad.org

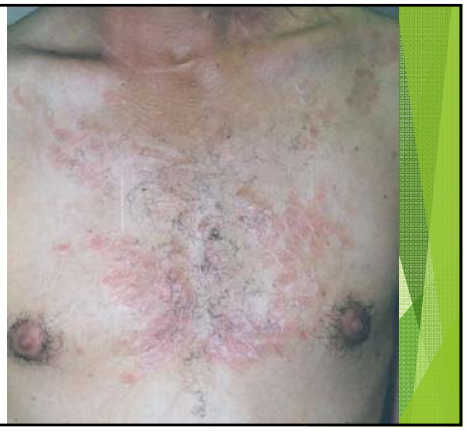
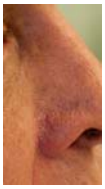
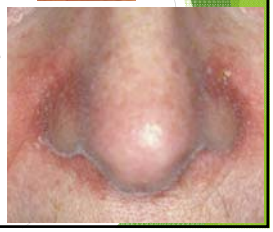


Photo: Dr. Tracy Donahue

Seborrheic Dermatitis



- Erythema and greasy-looking scales
- At risk groups- HIV, Parkinsons
- Common chronic dermatitis
  - Recurs, set expectations
- Typical locations: hairline, nasolabial folds, beard area, midline chest
- Due to immunologic reaction to normal flora of yeast

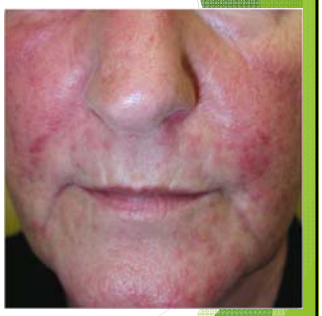


Treatment of seborrheic dermatitis

- Can be suppressed but not cured
- Topical anti-yeast agents such as ketoconazole 2% cream or shampoo are recommended for chronic use if needed
- Mild topical corticosteroids useful for acute flares (hydrocortisone 2.5%, desonide 0.05%)
- Once controlled, maintenance with medicated shampoos that act against yeast, (e.g., pyrithione zinc (Head & Shoulders), selenium sulfide, ketoconazole, salicyclic acid shampoos)

Case 2

- 70 year old female
- Erythema of cheeks, nose, chin
- Intermittent papules/pustules
- Telangiectasia

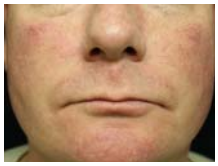


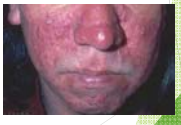
Rosacea

- Common in fair-skinned people, but can be seen in darker skin types
- Affects all ages
- Common symptom: Recurrent facial flushing from a variety of stimuli (sunlight, alcohol, caffeine, hot beverages, spices, drugs that cause vasodilation)
- Chronic condition with frequent flares
- Precise cause unknown but papulopustular—Demodex mites

Rosacea

- Erythematotelangiectatic
  - Azeleic acid gel/foam
  - Sulfacetamide sulfur
  - Vasoconstriction
    - Brimonidine 0.33% gel (Mirvaso)
    - Oxymetazoline 1% cream (same as Afrin)
  - Pulse Dye Laser
- Inflammatory
  - Ivermectin 1% cream
  - Clindamycin lotion
  - Metronidazole 0.75% gel/cream
  - Doxycycline

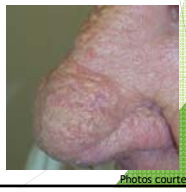




Photos courtesy of aad.org

Rosacea

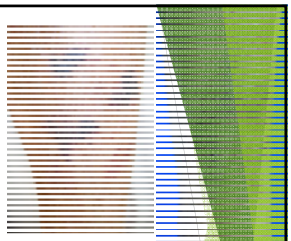
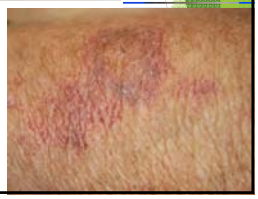
- Rhinophymatous
  - See in men
  - Skin of the nose is thickened
  - More prominent sebaceous glands
  - Often seen with another form of rosacea
- Topical metronidazole, azelaic acid, tretinoin
- Oral tetracyclines
- Isotretinoin
- Surgical: dermaplaning, dermabrasion, lasers
- Ocular rosacea

Photos courtesy of dermNZ

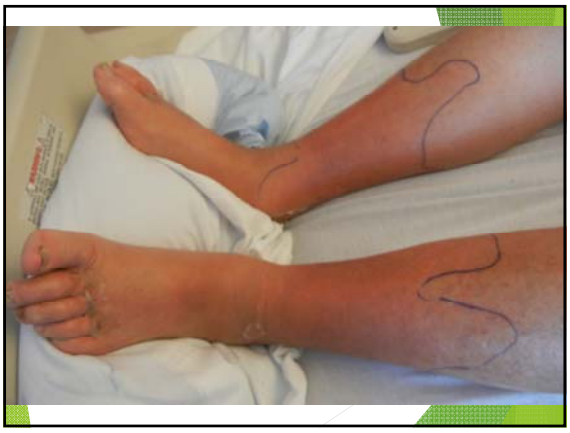
Bruising (Purpura)

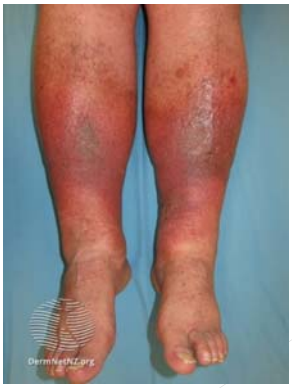
- "Senile purpura", "solar purpura"
- Causes:
  - Age
  - sun damage
  - blood thinners
  - chronic corticosteroid use
- No good treatments
- Can try:
  - Sun avoidance
  - Being careful not to have trauma
  - DerMend®, retinols, α-hydroxyl acids like glycolic acid, lactic acid
  - Ceramides
  - Niacinamide/nicotinamide (not niacin)

Photos from dermoz

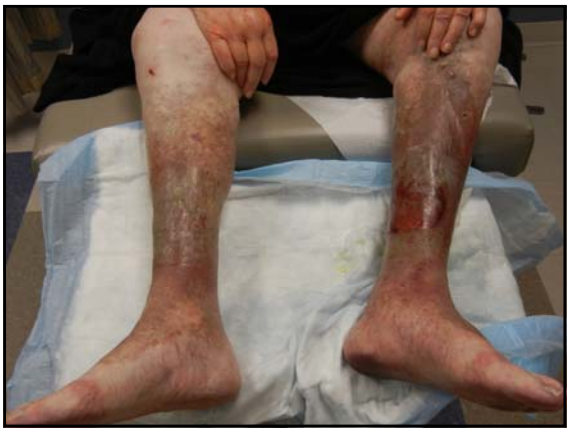
"Bilateral Cellulitis"

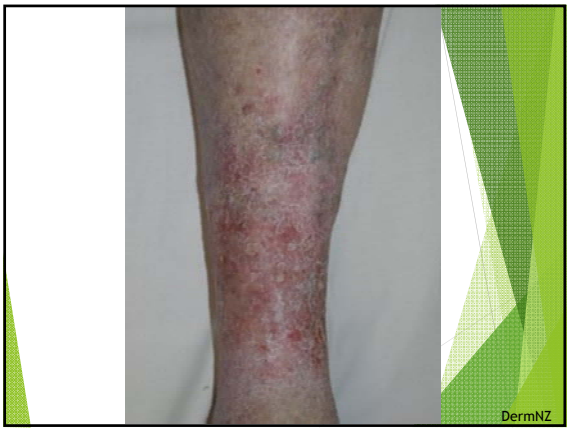




Stasis Dermatitis

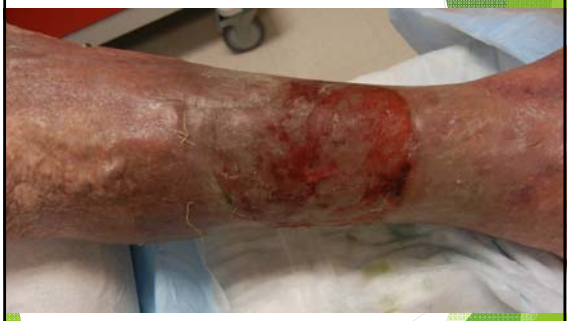
- An early sign of chronic venous insufficiency of legs
  - triggered by chronic venous hypertension
  - incompetent valves
- Typically seen in medial supramalleolar areas and associated with pruritus
- Risk of ulceration
- Can look inflamed, warm---how it can be confused with cellulitis
- Can get acutely worse with swelling





Stasis dermatitis treatment

- Optimize diuretics!!!
- Compression stockings
- Elevation
- Reduce salt intake
- Emollients
- Triamcinolone 0.1% cream BID PRN itch
  - Steroids can thin the skin so will need to re-evaluate for continued need
- Recurs



Venous and arterial ulcers

Lower-extremity ulcers are most often caused by vascular disease or neuropathy

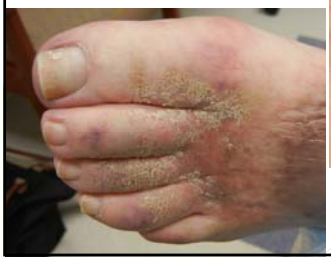
- 72% venous disease
- 22% mixed arterial and venous cause
- 6% pure arterial disease

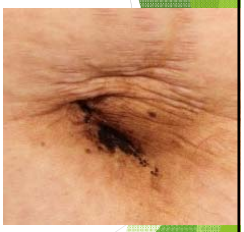
Characteristics of Venous and Arterial Ulcers

Characteristic	Venous disease	Arterial disease
Signs and symptoms	Limb heaviness, aching and swelling that is associated with standing and is worse at end of day, brawny skin changes	Claudication (pain in leg with walking), ankle-brachial index < 0.9, loss of hair, cool extremities
Risk factors	Advanced age, obesity, history of deep-vein thrombosis or phlebitis	Age >40, cigarette smoking, DM, HTN, hyperlipidemia, male gender, sedentary lifestyle
Location of ulcers	Along the course of the long saphenous vein, between the lower medial calf to just below the medial malleolus	Over bony prominences

Retention hyperkeratosis

- Also called dermatitis neglecta
- Common in nursing home patients
- Inadequate friction from cleansing
- Rubs off with alcohol swab





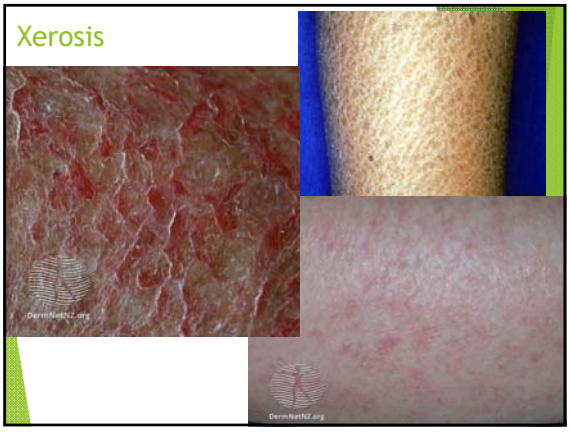
Dr. Tracy Donahue and DermNz

Things that make the elderly itch

Pruritus

- In older adults, can be very severe and compromise QOL
- Extensive differential diagnosis
  - Xerosis
  - Scabies
  - Allergic contact dermatitis
  - Irritant contact dermatitis
  - Atopic dermatitis
  - Bullous pemphigoid
  - Renal disease
  - Liver disease
  - Thyroid disease
  - Anemia
  - Occult malignancies
  - Drugs

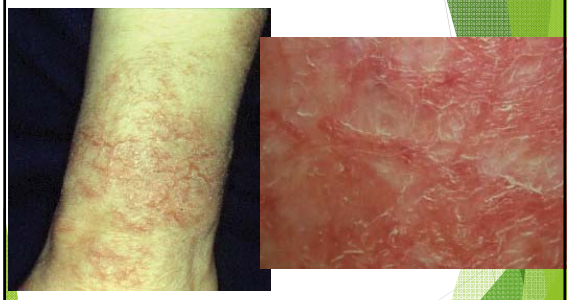
Xerosis



Xerosis

- Causes: reduced water content and reduced barrier function of aging epidermis
- Exacerbated by environmental factors (decreased humidity, hot water, harsh soap)
- Skin findings often more on legs; often results in pruritus
- Rough itchy skin or scales
- Statins can make worse
- If severe, may manifest as eczema craquelé

Eczema craquele



Dry, erythematous, fissured, and cracked skin was seen on the lower legs of this patient

Photo courtesy of Dr. Steirman, Derm NZ

Treatment of xerosis

- Avoid environmental triggers
- Take warm, not hot, showers
  - 10-15 min or less
  - Use emollients immediately after bathing
- Remove all fragrances from the house
  - Air fresheners, plug ins, perfumes, colognes
  - Fragrance free detergent, free-dryer sheets, NO fabric softener
- No bleach in laundry
- No alcohol on skin

Treatment of xerosis

- Use moisturizing agents containing lactic acid, salicylic acid, or glycolic acid to reduce roughness
- Pramoxine
  - Sarna sensitive
    - Thinner
    - $9-13, 8 oz
  - Cerave anti-itch cream
    - Thicker
    - $14-16, 8 oz

Topical Steroid Pearls

- Face/neck/armpits/groin: hydrocortisone 2.5% BID PRN to red scaly itchy areas (up to 2 weeks, 30 g)
  - Eyelids: 1 week max (risk of glaucoma and cataracts)
  - Protopic (tacrolimus 0.1% ointment) or Elidel (pimecrolimus 1% cream) --- okay for long term
- Body/extremities:
  - Moderate: triamcinolone 0.1% BID prn
  - Severe: betamethasone 0.05% BID prn or clobetasol (although this has gotten expensive)
  - Do not use on face, neck, armpits, groin, body folds
    - skin atrophy, dyschromia, telangiectasia
- Ointment vs cream vs solution/foam/spray/lotion

Itch

- Elderly can suffer from itch separate from xerosis
- Treat xerosis first!!!
- Look for underlying cause – treat if possible
- Look for medication causes
- If no rash and no xerosis, then "generalized pruritus"

Lab work up

- For everyone
  - CBC
  - BUN/Cr
  - LFTs
  - Lactate dehydrogenase (LDH)
  - Thyroid function tests
  - ESR
- Use clinical judgement
  - Iron studies
  - Chest xray
  - Stool for ova, parasites
  - HIV, hepatitis
  - Anti-mitochondrial, anti-smooth muscle Abs
  - Skin biopsy, possible direct immunofluorescence
  - Allergy testing
  - SPEP w immunofix, UPEP w immunofix

Medication causes of itch

(of note, often have a rash)

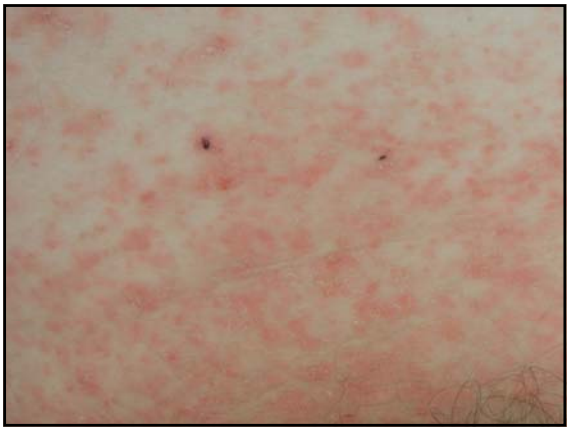
- Diuretics
- Statins
- ACE inh
- Anticonvulsants
- Allopurinol
- Opioids

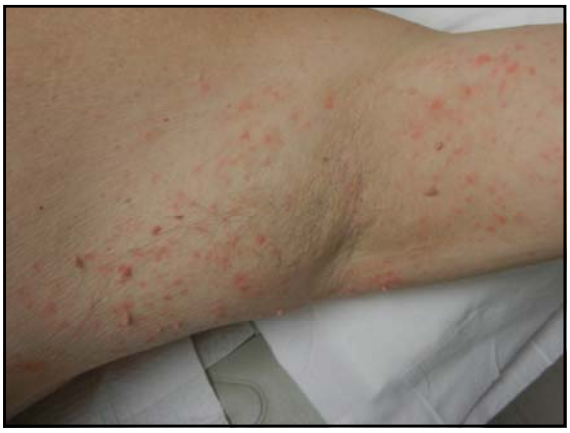
Treatment of itch

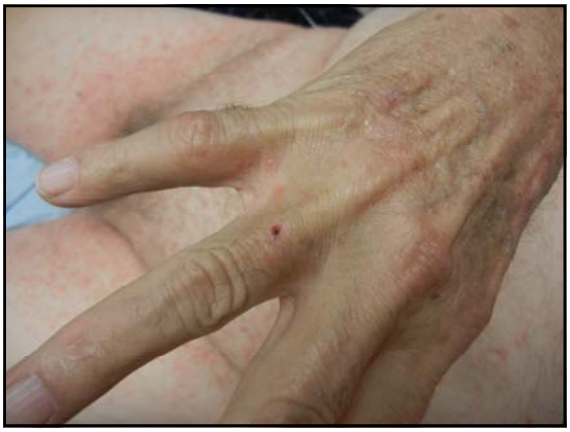
- Pramoxine cream/lotion
  - Can put in fridge to stay cool
- Menthol
- H1 and H2 blockade – can try but usually avoid in elderly if possible
- Gabapentin or pregabalin
- UVB phototherapy for refractory cases (but not often option in bedbound/nursing home patients)

Case 3

- 79 yo M with history of HTN, CAD presents with 11 months of intense itching (10/10)
- No one in family is itching
- Already treated with permethrin cream
- ROS is otherwise negative

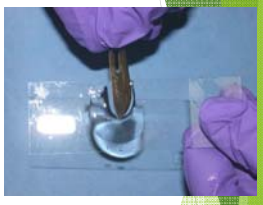






Scabies Scraping

- Slide
- 15 blade
- Mineral oil
  - Put drop on the slide
  - Wet 15 blade
  - Scrape until minor bleeding
  - Cover slip



Scabies

- Diagnosis:
  - scraping of suspected lesion (mite excreta (scybala), eggs, or mite may be seen)
  - Clinical---can still diagnosis if scarping negative
  - Better to overtreat than undertreat

Scabies

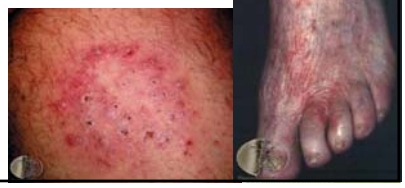
- Common in institutionalized older people; epidemics can occur in long-term-care facilities
- Spread by person-to-person contact
- Eradication can be difficult
- Signs and symptoms include severe pruritus (esp. of hands, axillae, genitalia, and peri-umbilical region), erythematous papules, and linear burrows
- Papules on the penis and/or scrotum---THINK SCABIES

Scabies Treatment

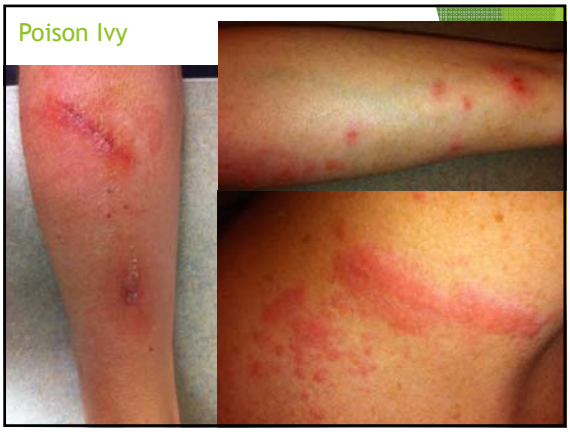
- Permethrin 5% cream
  - Neck down in "all nooks and crannies"
  - Apply at bedtime, wash off in morning
  - Repeat 1 week later
  - ALL close contacts (household members)
- Ivermectin (0.2 ug/kg), repeat in 1 week
  - Comes in 3 mg pills
- Wash clothes, towels, bedding in HOT water
- Dry on HOT in dryer
- Things that can't be washed- seal in plastic bag x 1 week
- Vacuum house
- Pets ok
- Pruritus may persist for weeks to months

Itch---Tinea

- Do NOT use steroid-antifungal combinations
- If in doubt- try antifungal first x 3-6 weeks
- Steroids on fungus leads to: tinea incognito and majocchi granuloma



Poison Ivy



Poison Ivy - Pearls

- Lasts 3 weeks---
  - 5 days of methylprednisolone is not long enough
- No topical diphenhydramine
- No topical neomycin
- Antihistamines if needed and no contraindications
  - Fexofenedine 180 mg QAM
  - Cetirizine 10-20 mg QHS or hydroxyzine 10-25 mg QHS
- Topical steroids

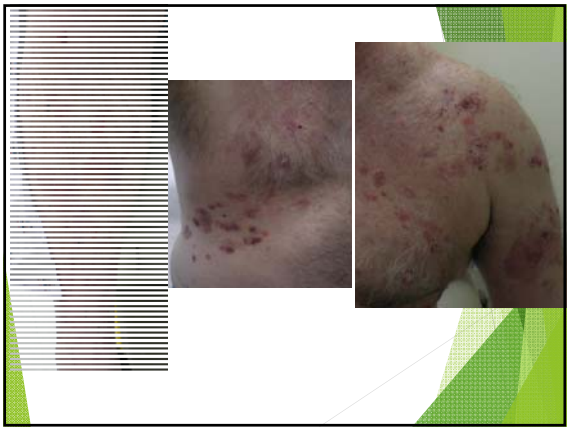
Case 4

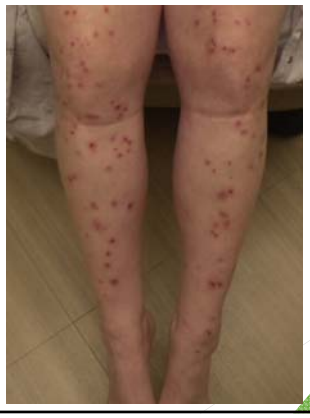
70 yo M with tense, fluid-filled, and hemorrhagic bullae on an erythematous base were seen on the trunk and extremities

Some of the bullae have ruptured and left a scab with crusting

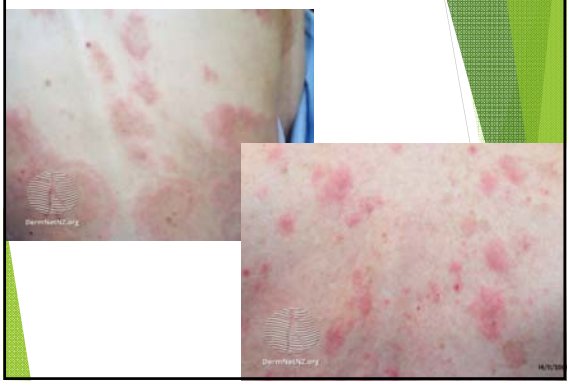
Bullous Pemphigoid

- An autoimmune blistering disorder
- Occurs most often in adults in 60s and 70s
- Blisters are usually large and tense, on normal or erythematous skin; may be filled with clear or hemorrhagic fluid
- Diagnosis by biopsy and immunofluorescence (DIF)
- Condition may last from months to years, but can be self-limited
- ~ 19% mortality rate after 1 year of diagnosis (Olmsted County data)





Urticarial bullous pemphigoid



Drug-induced bullous pemphigoid

- Furosemide
- PCN
- Captopril
- Beta-blockers
- Sulfonamides
- Terbinafine
- Penicillamine

BP: Pathophysiology

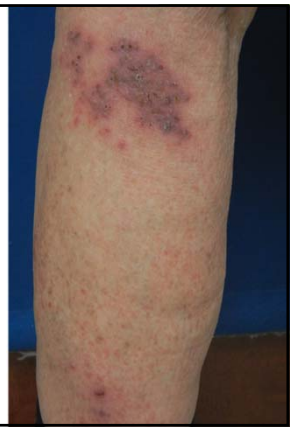
- Antigens develop in the hemidesmosomes
- Antibodies bind to bullous pemphigoid antigen, activating the complement cascade
- Attracted leukocytes and degraded mast cells cause separation of epidermis from basement membrane

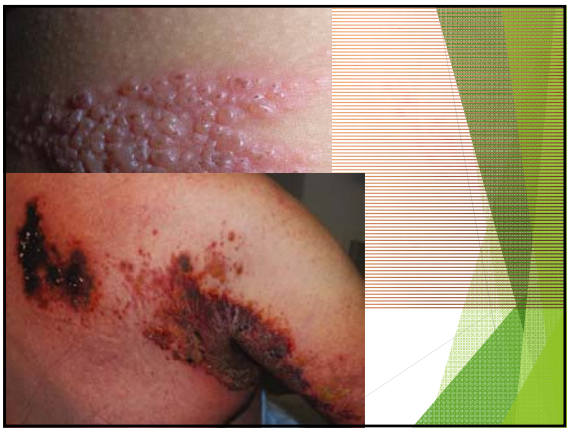
Treatment of Bullous Pemphigoid

- For localized disease:
  - Use topical corticosteroid
  - Calcineurin inhibitors (tacrolimus, promeclimius)
  - Doxycycline 100 mg BID + nicotinamide 500 mg 4x/day
- For more extensive disease:
  - Systemic corticosteroids
  - Other immunosuppressants (mycophenolate, MTX, dapsone, azathioprine, cyclosporine)
  - Tetracycline and niacinamide combination therapy
  - IVIg, rituximab

Case 5

- 82 yo F comes with a new rash on leg
- Present for 2 days
- Started as burning, pain





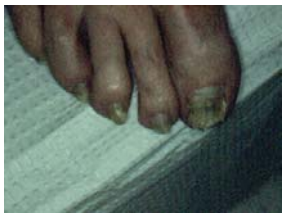
Herpes Zoster treatment

- For immunocompetent: Treat < 72 hours or getting new lesions
  - Minimum benefit if all lesions are crusted
- For immunocompromised: Treat
- If disseminated: need IV acyclovir
- Renally dose:
  - Valacyclovir 1 g TID x 1 week
  - Acyclovir 800 mg 5x/day x 1 week
  - Famciclovir 500 mg TID x 1 week

Post-herpetic neurolgia

- Pain after 4 months
- Studies have not shows benefit for giving corticosteroids to prevent post-herpetic neuralgia
- Gabapentin
  - Renally dosed
  - Can up titrate to 1800-3600 mg/day divided into TID
  - Limited by drowsiness, mental fog, dizziness
- Pregabalin
  - Renally dose
  - Can dose 75-600 mg
  - Limited by drowsiness, fatigue, peripheral edema
- Tricyclic antidepressants
  - Anti-cholinergics
    - Limited in elderly population

Intro to onychomycosis



Nails infected by fungi are often yellow, thickened, and friable, with yellow-brown debris under the nail plate

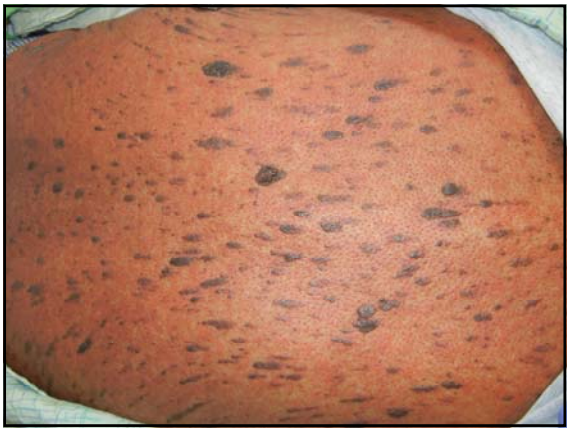
Onychomycosis

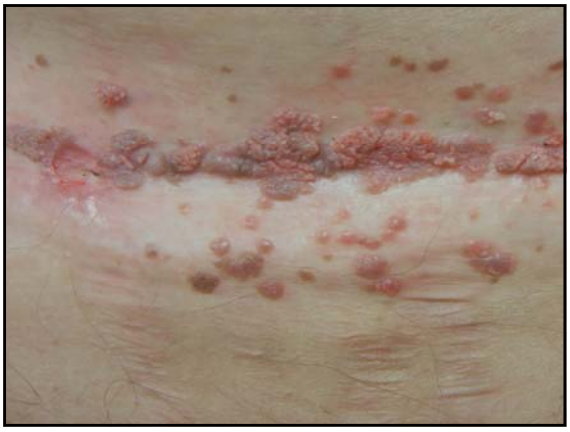
- Affects about one third of older adults
- ↑ incidence in older adults with obesity, DM, PAD, immunodeficiency, chronic tinea pedis, or psoriasis
- Causes: dermatophytes (80% of infections), yeasts, and saprophytes
- Causes thickening of the nail plate and can create pain
  - In pts with neuropathy, can be a source of nail bed ulcerations
  - In pts with DM, the break in the epidermal barrier can serve as a route for bacterial infections

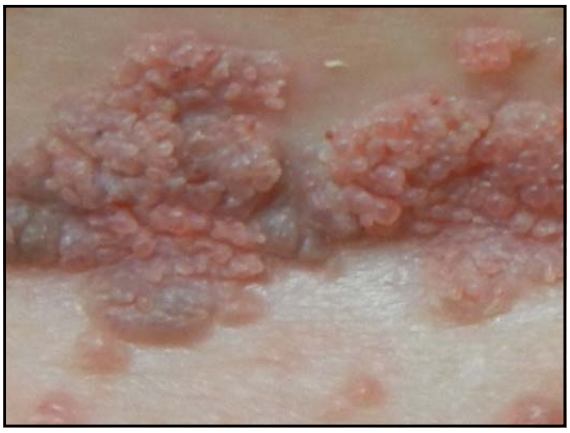
Treatment of onychomycosis

- For cosmetic concerns, comorbidities (diabetes), or pain
- Effective, but duration of treatment, adverse event profile, and high potential for drug interactions warrant caution in older adults
- Oral terbinafine, fluconazole and itraconazole
  - consider pulse therapy of terbinafine 500 mg or itraconazole 400 mg
    - daily x 7 days, take 3 weeks off, then repeat
    - 2 months for fingernails and 3 months for toenails
- Ciclopirox 8% solution daily to nails
  - Remove lacquer with alcohol q 7 days
- Efinaconazole (Jublia) 10% solution daily x 48 weeks to the nail, folds, bed, hyponychium, and undersurface of nail plate; does not require removal.
- Tavaborole (Kerydin) 5% solution once daily x 48 weeks to nail and underneath nail

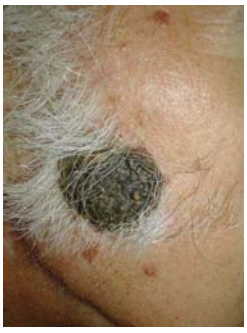
Growths



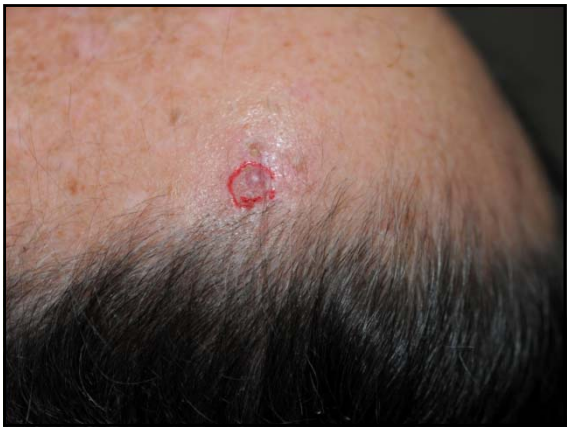




SEBORRHEIC KERATOSES

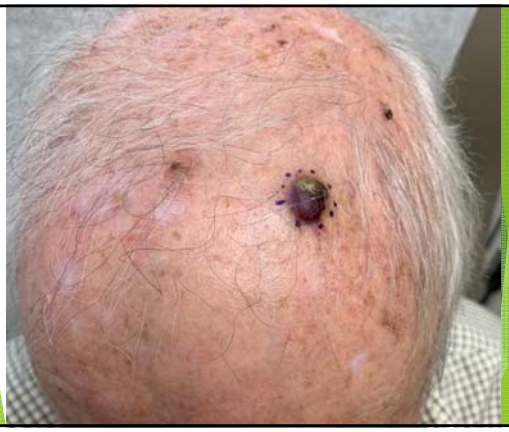


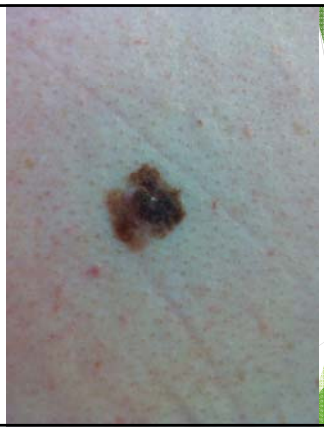
- Benign growths common in adults > 40 years old
- Tan, gray, black, waxy or warty papules and plaques with stuck-on appearance
- Can be removed for cosmetic purposes
- Occasionally confused with melanoma

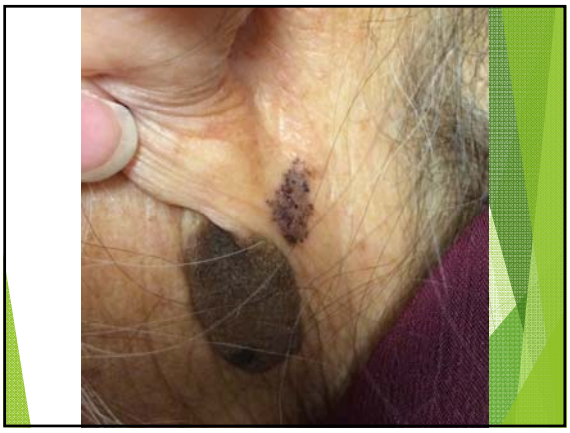


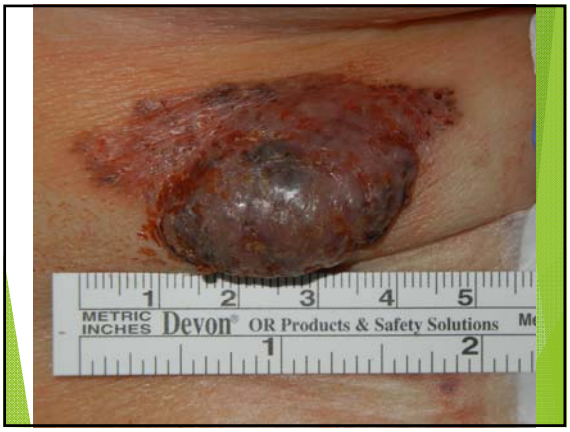
Merkel Cell Carcinoma

- Cutaneous neuroendocrine carcinoma
- Associated with sun exposure
- Caucasians >50 years old
- Solitary dome shaped papule, dark red or violaceous, shiny surface, +/- telangiectasia








METRIC
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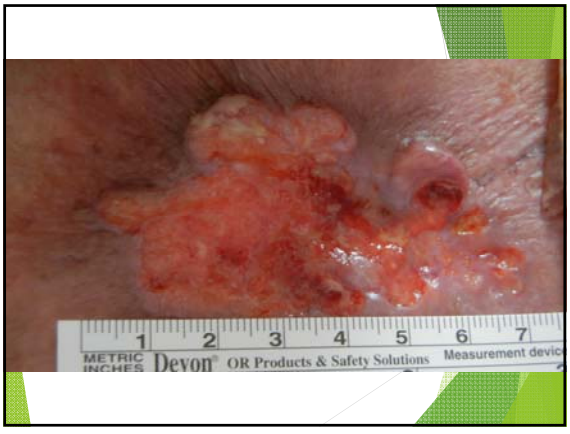
OR Products & Safety Solutions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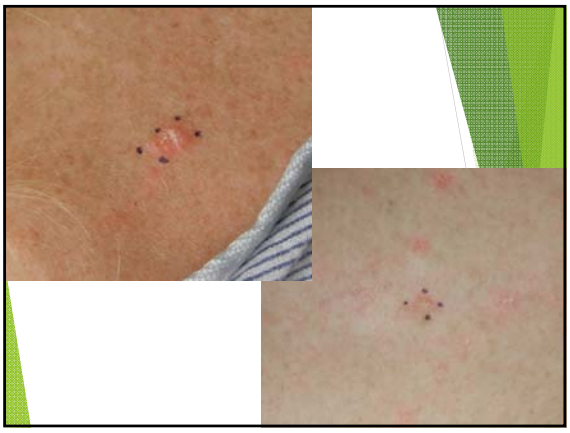

Thank You

Questions???