What Is That?

Cutaneous Neoplasm

AAPA We Are Family Medicine 2024 Conference

Phoenix, Arizona

Timothy Kessler, DMSc, PA-C

- PA for 26 years, 24 years in Dermatology
- QualDerm/Pinnacle Dermatology, Grand Blanc, Michigan

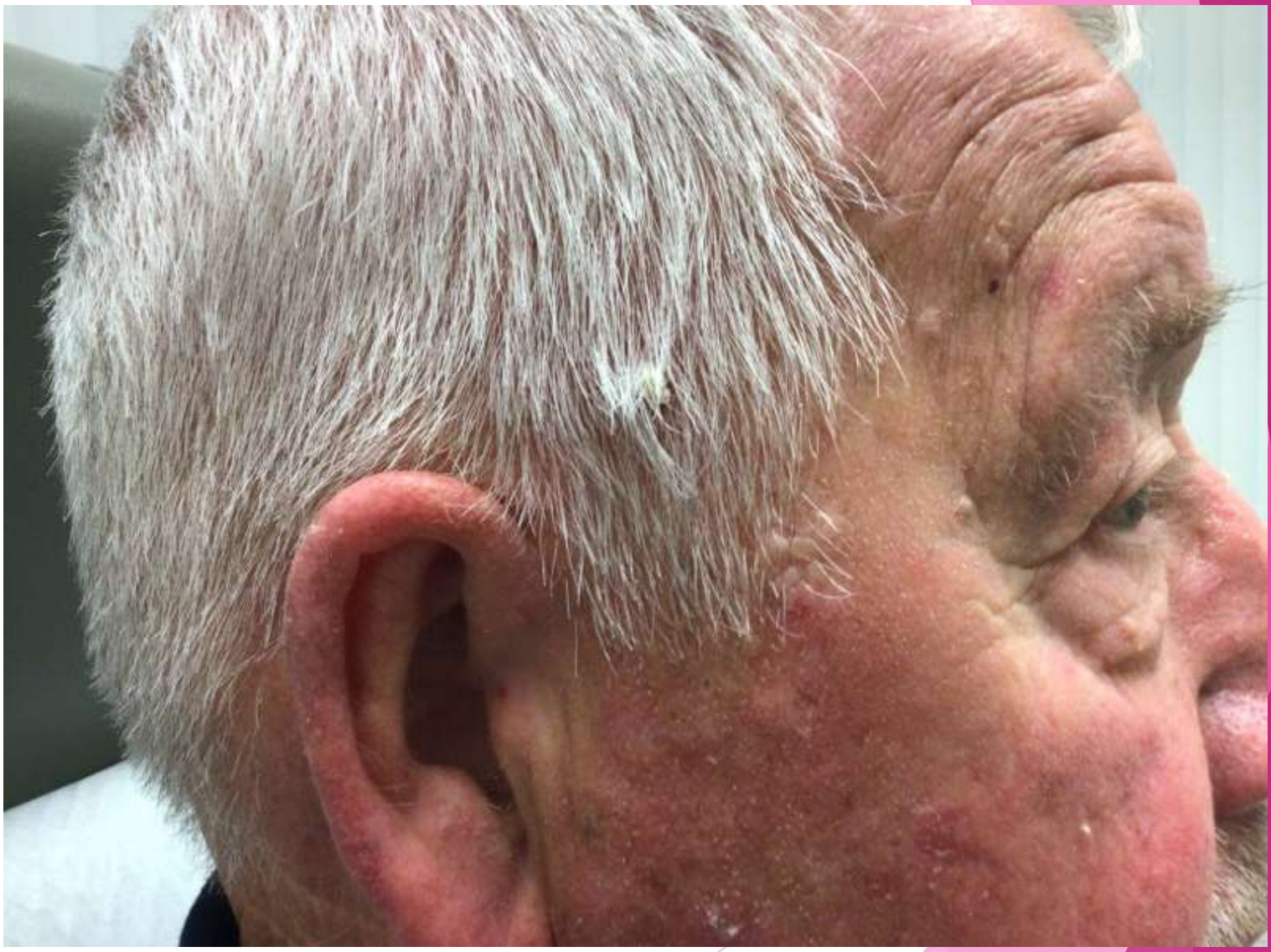
- NON-DECLARATION STATEMENT:
  - *I have no relevant relationships with ineligible companies to disclose within the past 24 months.*

Educational Objectives

- Case-based approach to cutaneous neoplasms. The lecture will focus on skin cancer types, the presentation in different skin types/tones, the work-up of the neoplasm and treatment and/or referral to specialist.
- At the conclusion of the session, the participant should be able to:
  1. Assess the role of primary care providers in diagnosis and treatment of skin neoplasms
  2. Implement updated strategies for managing actinic keratosis, squamous cell carcinoma, basal cell carcinoma and melanoma
  3. Integrate into daily practice evidence-based recommendations on new and emerging treatments for cutaneous neoplasms

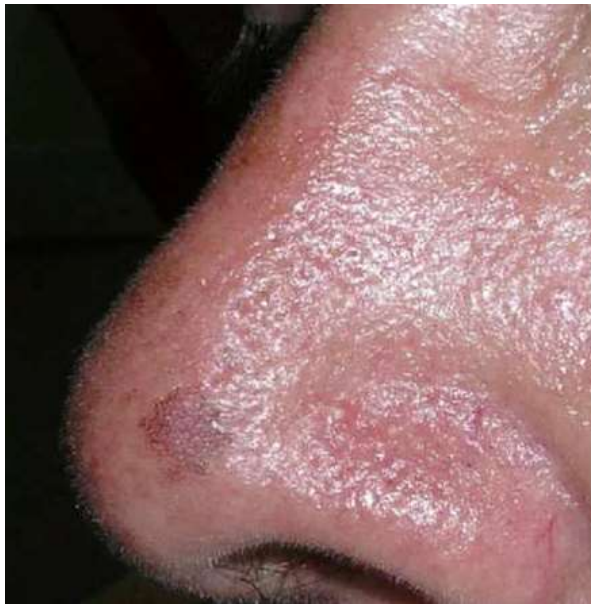
86 y/o

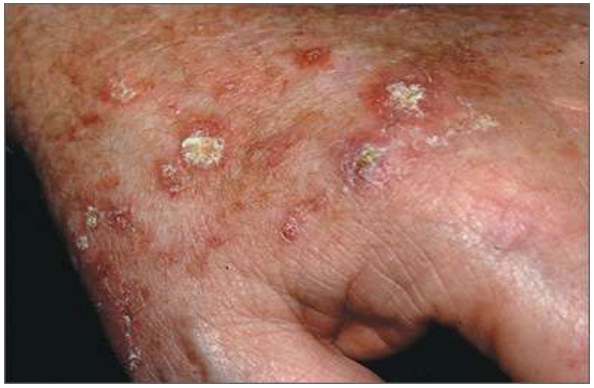
Presents to the office because his wife made this appt. He has no complaints.

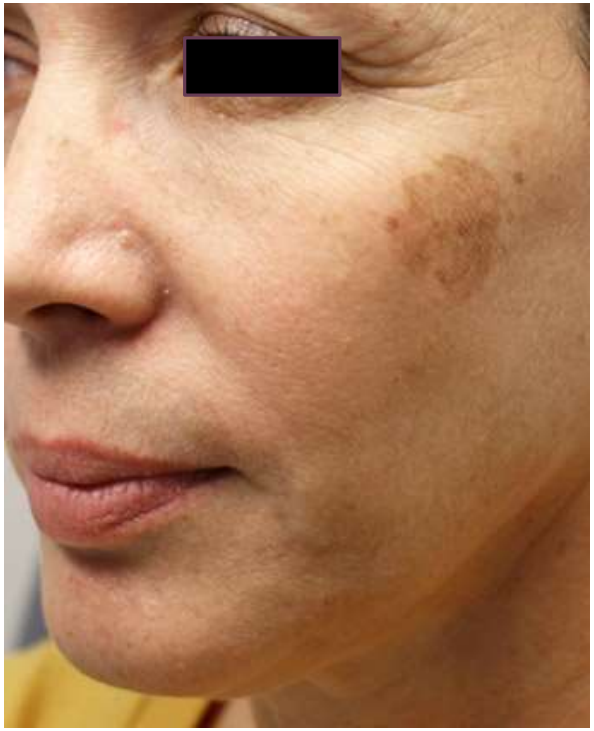


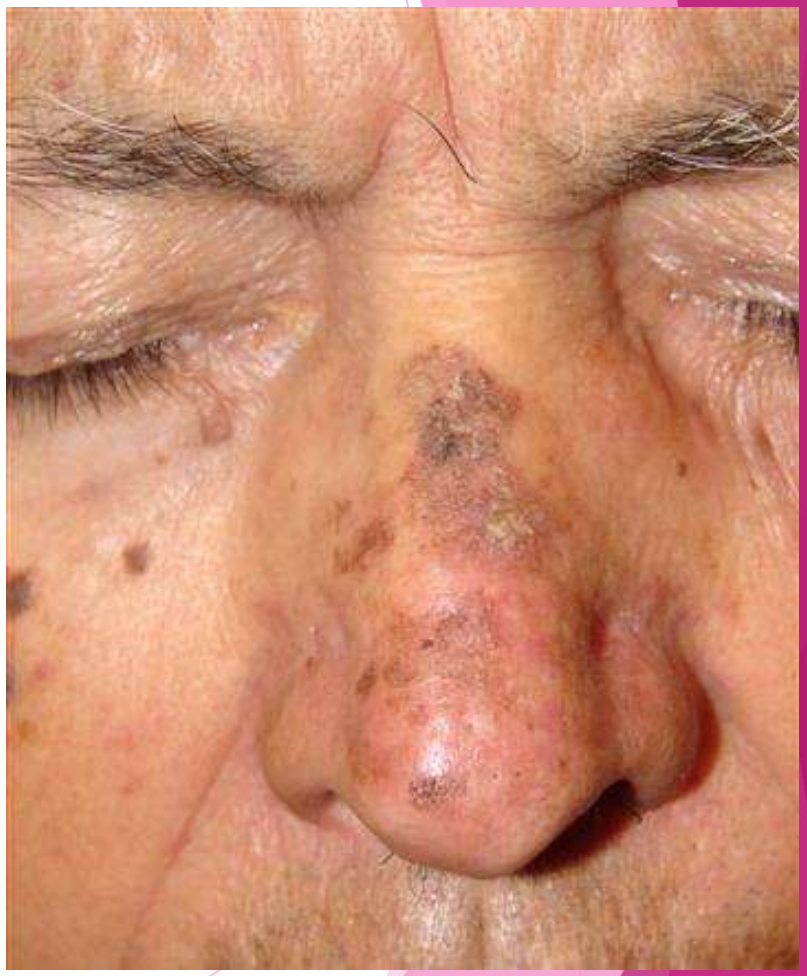
Actinic Keratosis

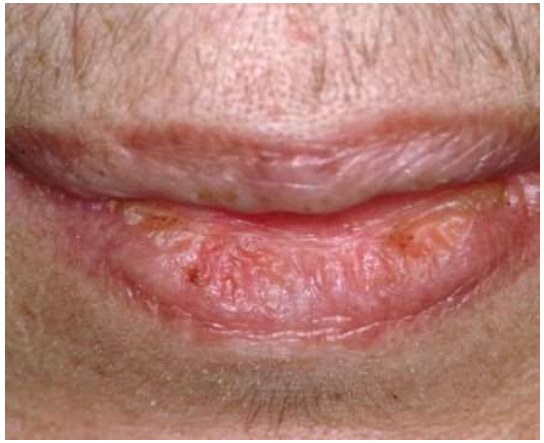
- "Precancerous" lesions that have the potential to evolve into invasive SCC
  - Rate of progression varies from ≤0.1% of lesions/year to ~10% of lesions over 10 years
  - Confined to lower portion of epidermis
  - Most frequently encountered lesion in clinical practice
  - Occur primarily in sites with greatest sun exposure
    - Scalp, face, ears, neck, dorsal forearms & hands, shins
  - Seen in middle-aged to older individuals
  - Fair-skinned individuals
  - Classic presentation: gritty papule with an erythematous base and white/yellow scale feeling rough to touch
  - Variants: pigmented AK, hypertrophic AK, lichenoid, atrophic; actinic cheilitis
  - DDX: SCC in situ (Bowen's disease), BCC, lichen planus-like keratosis, irritated SK, verruca vulgaris, invasive SCC, actinic porokeratosis, psoriasis, seborrheic dermatitis
  - DX: clinical appearance or biopsy











Treatment of AKs

Lesion-targeted

- Liquid nitrogen cryosurgery
  - 10-14d healing
  - Risk of hypopigmentation
- Curettage
  - Requires anesthesia
  - Risk of hypopigmentation and scar
- Shave excision
  - Requires anesthesia
  - Risk of hypopigmentation and scar

Topical field

- 5-fluorouracil
  - 1% or 5% cream – apply BID for 2-4wks
  - 2% or 5% soln – apply BID for 2-4wks
  - 0.5% cream – apply QHS for 4wks
  - Warn of photosensitivity
  - Optimal results if tx continues until there is significant inflammation and superficial erosions
  - Healing occurs within 2 wks of stopping tx
- Imiquimod
  - 2.5% or 3.75% cream – apply QHS for 2wks; take 2wk break then repeat
  - 5% cream – apply twice a week for 16wks
  - May cause systemic flu-like symptoms
  - Not recommended in individuals with autoimmune conditions
  - May cause hypopigmentation

Treatment of AKs

Topical field

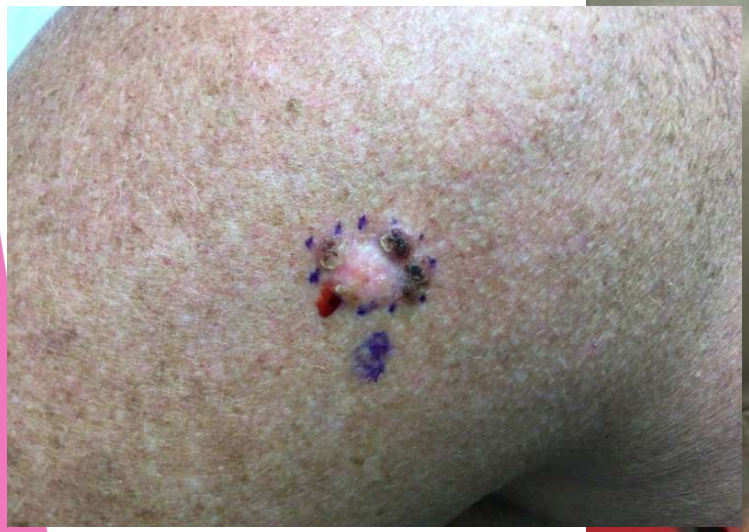
- Diclofenac
  - 3% gel – apply BID for 90 days
  - Maximum amt should not exceed 8gm QD
  - Do NOT use if allergic to NSAIDs
  - Compliance issues
- Ingenol mebutate
  - 0.015% gel – apply QHS for 3 nights
  - 0.05% gel – apply QHS for 2 nights
    - Rapid onset of action
    - Pt will experience erythema and burning
    - Healing within 10-14 days

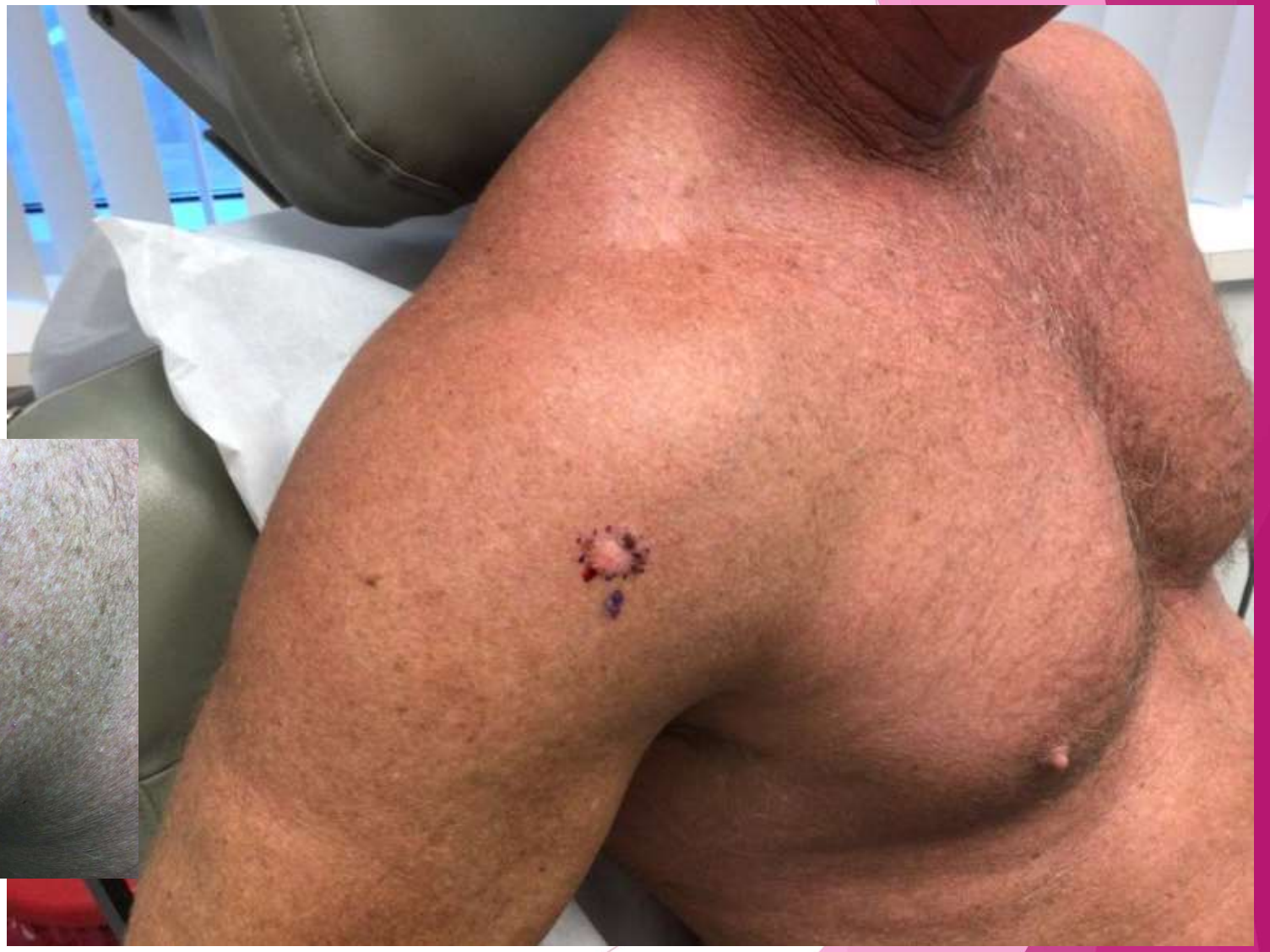
Procedural field

- Photodynamic therapy (5-ALA + blue light)
  - Requires 48hr no outdoor exposure
  - Can be painful
  - Healing 1-2wks
- Chemical peels (TCA)
  - Significant irritation and temporary discoloration

62 y/o

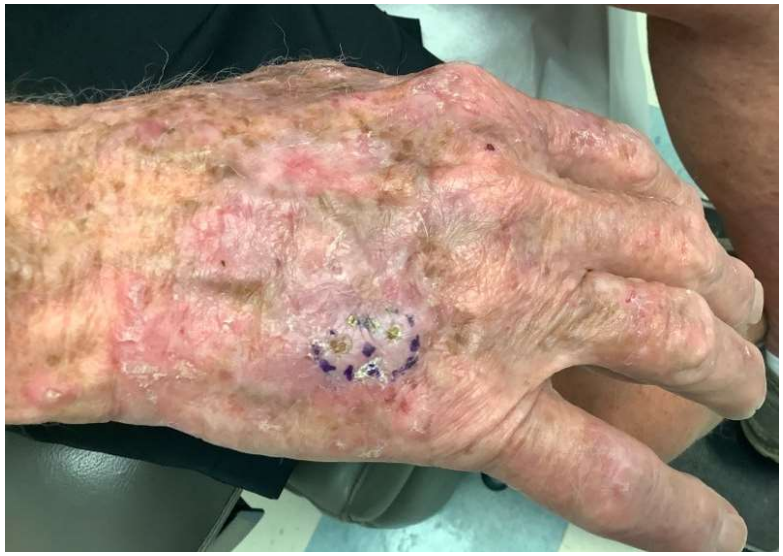
Presents to office with growing, bleeding lesion x1yr.

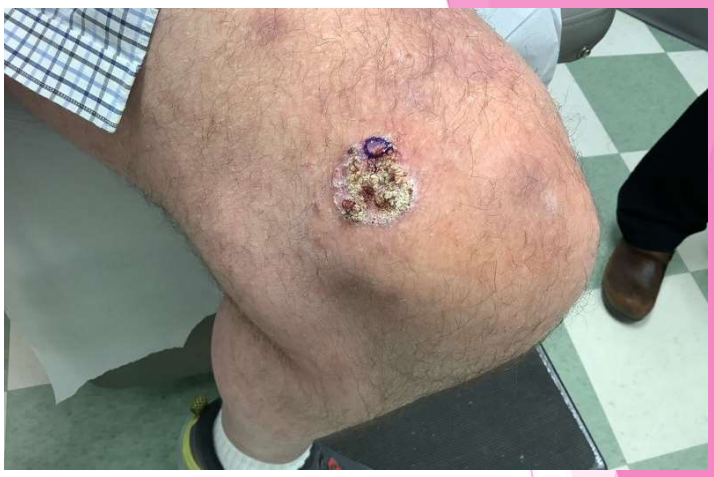


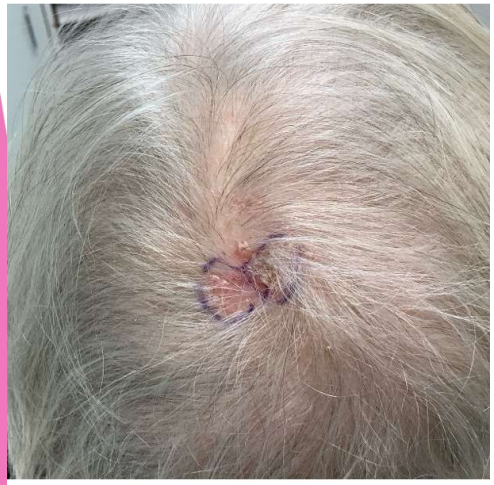


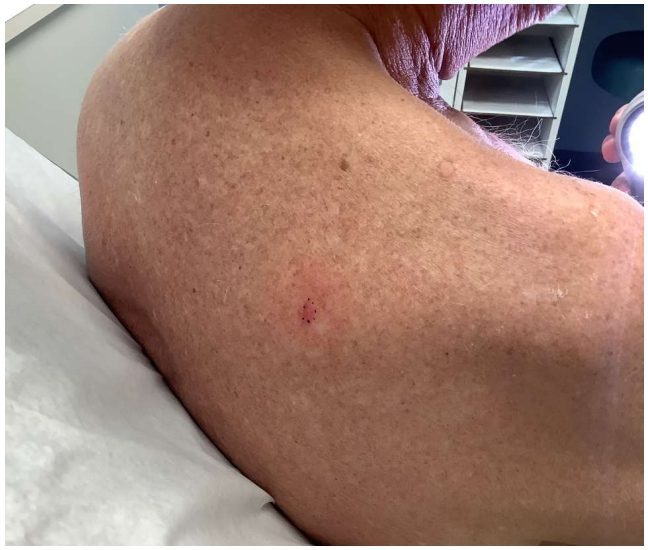
Squamous Cell Carcinoma *In Situ* (Bowen Disease)

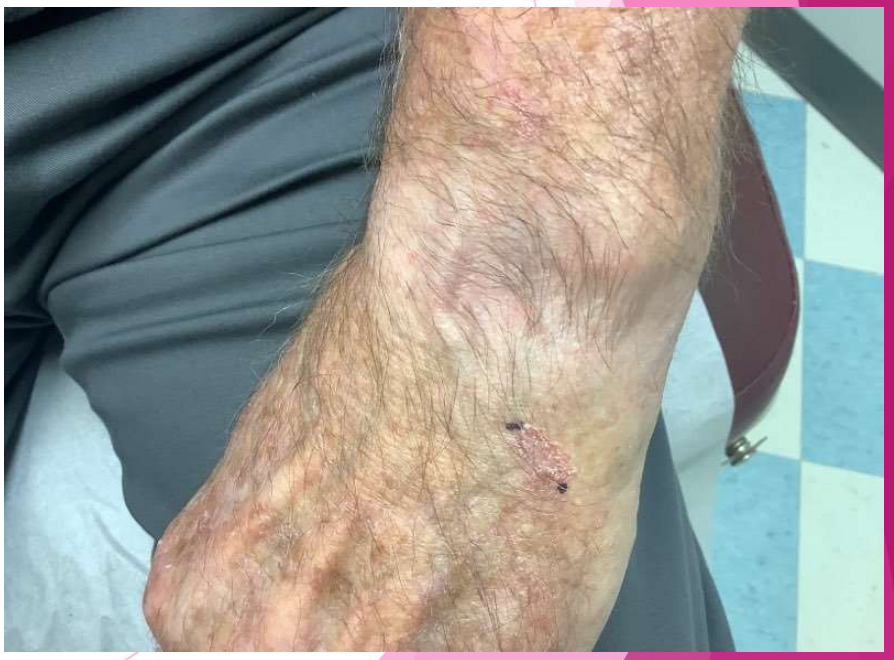
- May arise *de novo* or from a pre-existing AK
- Sometimes caused by oncogenic strains of human papillomavirus (HPV)
- Keratinocyte atypia seen throughout the entire epidermis
- Potential to progress to SCC (~3-5% if untreated)
- Location same as AK
- Clinically presents as an erythematous patch or thin plaque with scale; occasionally pigmented
- DDX: AK, invasive SCC, BCC, lichen planus-like keratosis (LPLK), irritated SK, amelanotic melanoma, psoriasis, nummular eczema (lack of response to appropriate tx)
- DX: biopsy









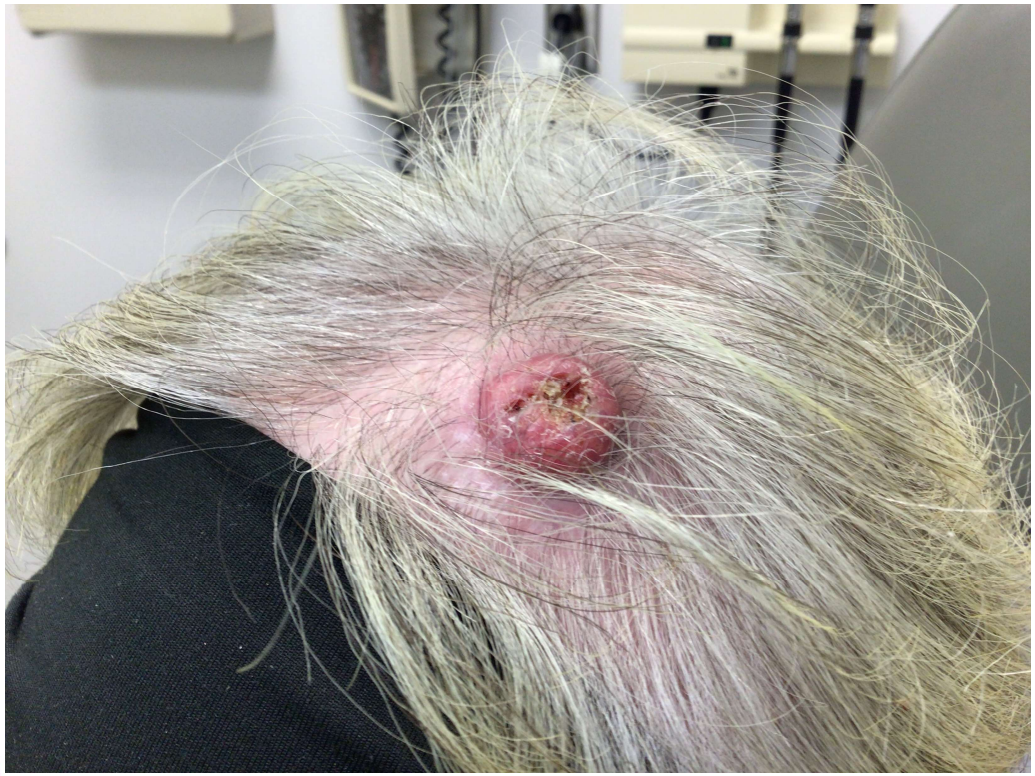


Treatment of SCC in situ

- Tangential excision with curettage
- Electrodesiccation and curettage (ED&C)
- Excision
- Mohs micrographic surgery (head, neck, urogenital)
- Imiquimod cream or 5% fluorouracil (bid for ~8wks)
  - Used when a surgical approach would prove difficult to perform because of location or extent

78 y/o

Presents to office for growing scalp lesion present for 2-4 wks

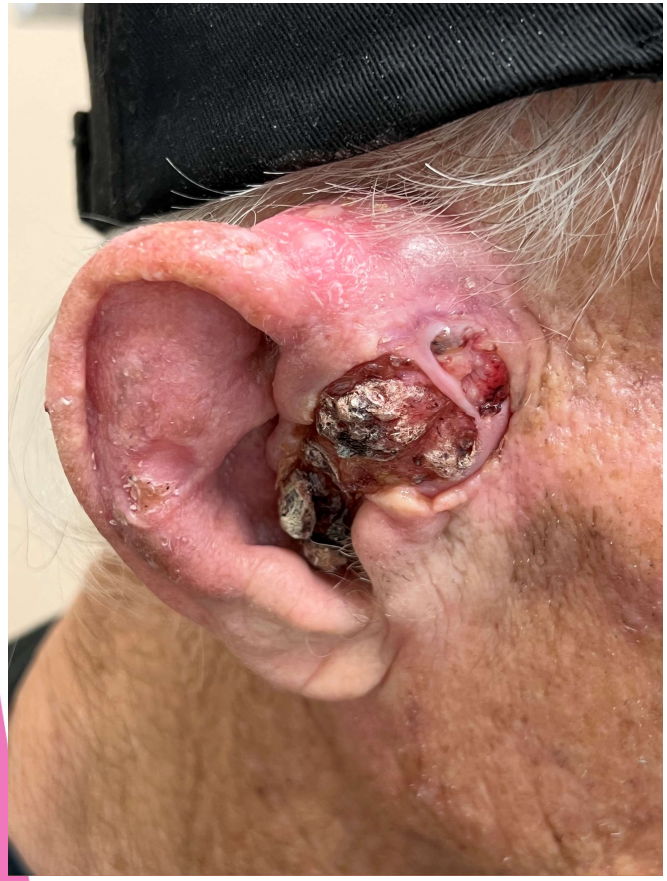


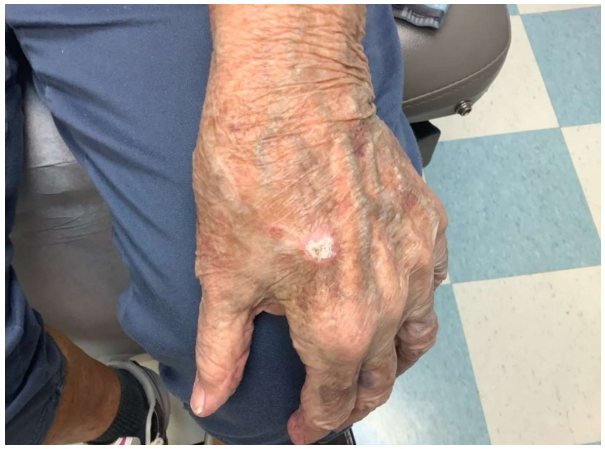
Squamous Cell Carcinoma

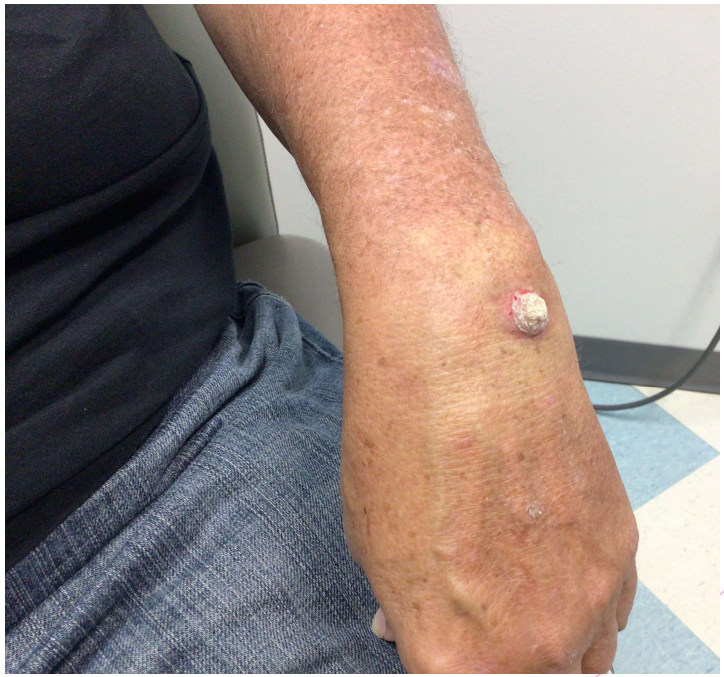
- May develop *de novo* or from precursor AK or SCC in situ
- More common in males than females with increased incidence with age
- Location same as AK & SCC in situ; fair-skinned individuals higher risk
- In all photo/skin types, invasive SCC may develop in sites of
  - HPV infection
  - Scars
  - Chronic injury or inflammation
  - Previous radiation therapy
  - Chemical exposure (arsenic, mineral oil, coal tar, psoralen, etc.)
- Other risk factors: UV exposure, medications (HCTZ, BRAF inhibitors, hydroxyurea), cigarette smoking, genetic syndromes (xeroderma pigmentosum, basal cell nevus syndrome, etc.), longstanding discoid lupus, lichen planus or lichen sclerosus, porokeratosis, nevus sebaceous, immunosuppression from organ transplant, medications

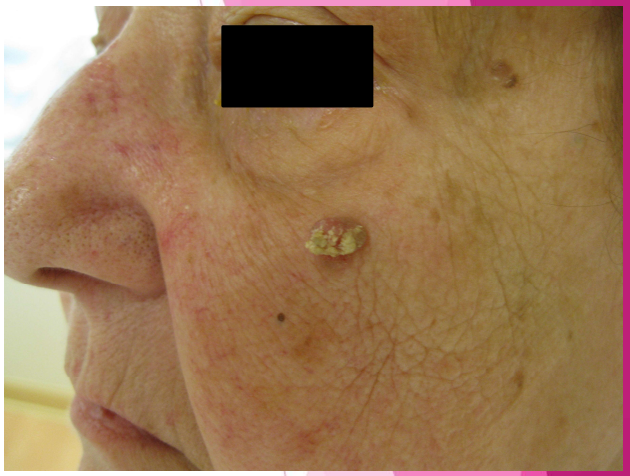
Squamous Cell Carcinoma

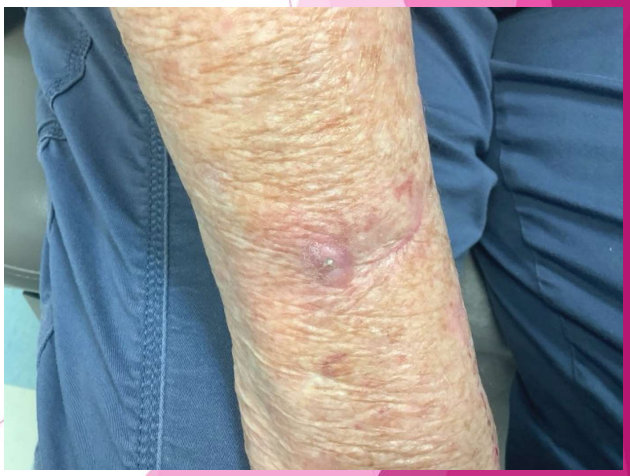
- Clinically presents as an erythematous, keratotic papule or nodule that arises within a background of sun-damaged skin
  - + tenderness
  - Rapid development or enlargement
  - Sometimes a history of preceding trauma
- Variants: keratoacanthoma (KA), verrucous carcinoma, mucosal, periungual and subungual
- DDX: AK, HAK, SCC in situ, BCC, verruca vulgaris, irritated SK, amelanotic melanoma, atypical fibroxanthoma, Merkel cell carcinoma, adnexal tumors, prurigo nodularis
- DX: biopsy (should be deep enough to determine extent of dermal invasion); palpate regional lymph node basin
- Risk of nodal metastases ~2-4% with SCC accounting for 20% of all skin cancer deaths
- Risk factors for metastases: lesions on lips, ear, mucosae (tongue, vulva, penis), development within scar, host immunosuppression, tumor thickness >2mm, tumor diameter >2cm, poorly differentiated, perineural invasion





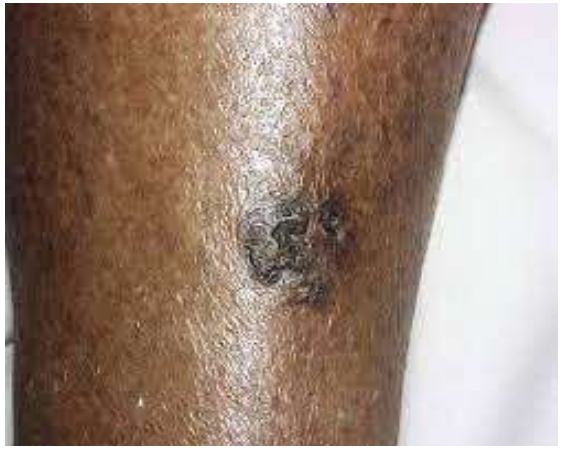


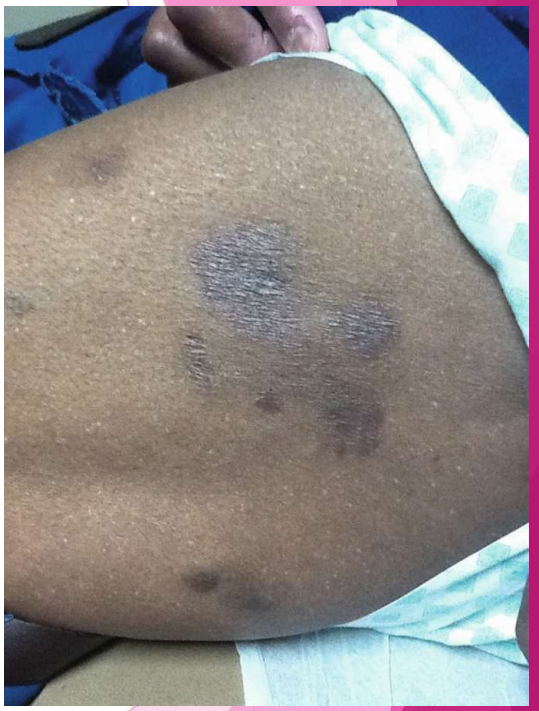


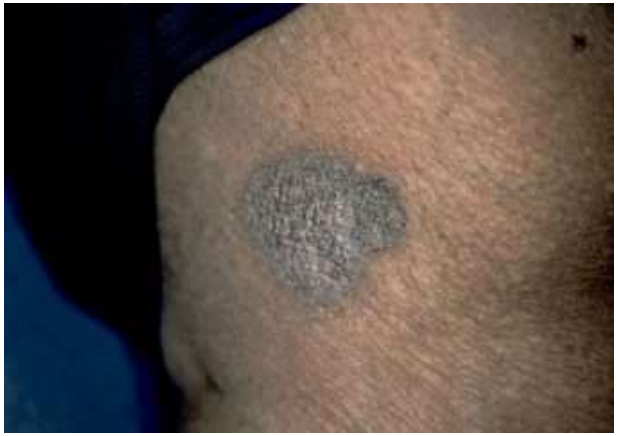


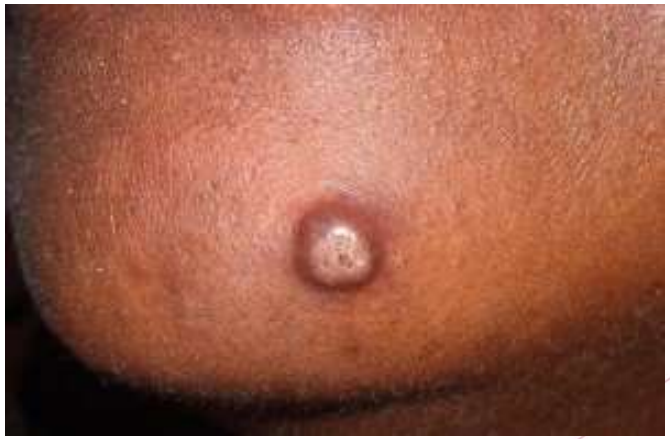
SCC: Skin of color

- Most common skin cancer in Blacks
- Second most common in Hispanics, Asians
- Anatomic distribution: legs







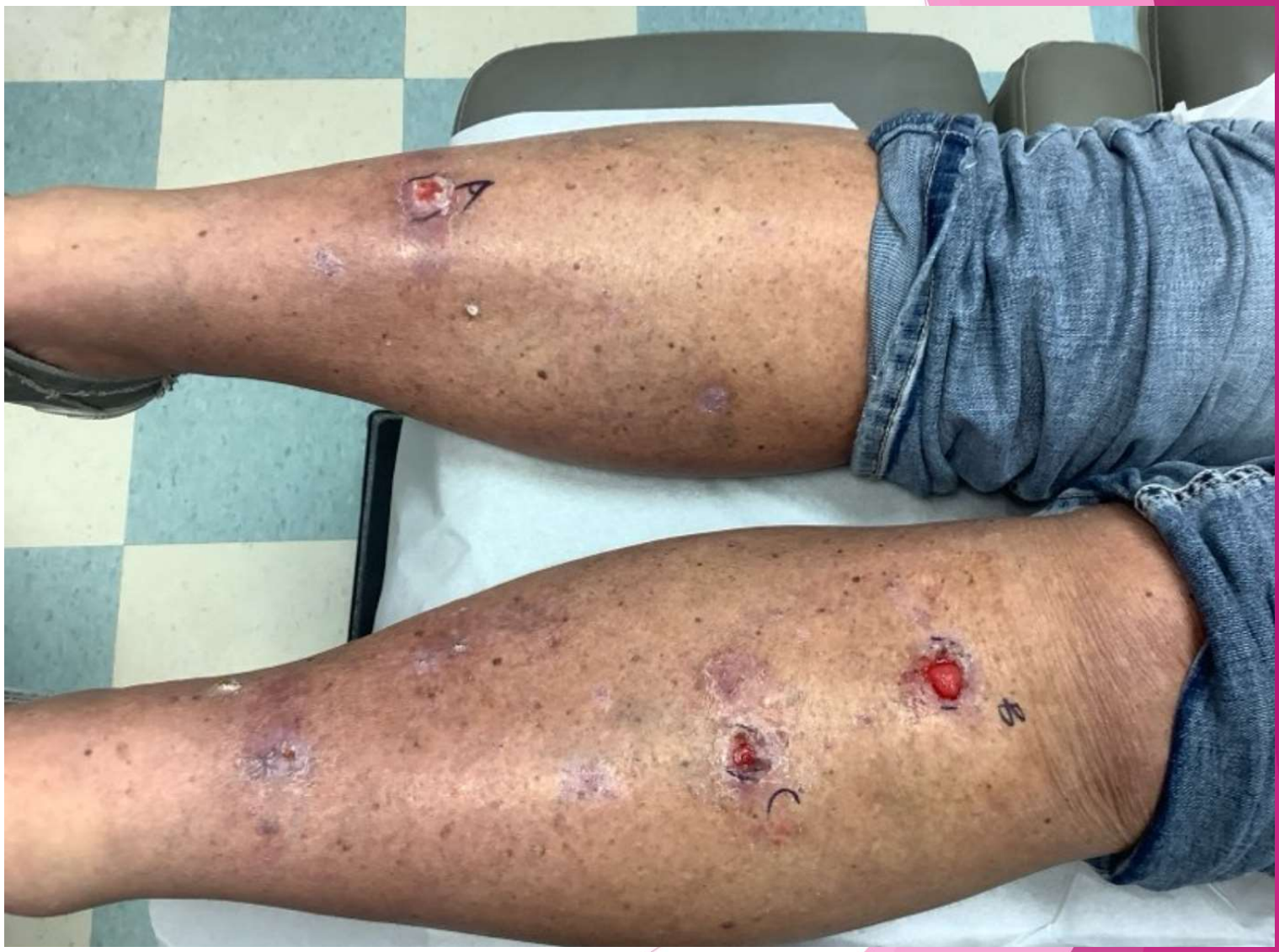


Treatment of SCC

- Excision based on risk factors
  - Low risk: small in size
    - Standard excision with 4-6mm margins
  - High risk: poorly defined borders, recurrent tumor, immunosuppressed host, tumor at previous XRT, tumor at site of chronic inflammatory process or ulceration; rapidly growing tumor, neurologic symptoms, size: trunk & ext >20mm, cheeks, forehead, scalp, neck, pretibial >10mm, face, genitalia – any size
    - Mohs micrographic surgery
    - Standard excision with 10+mm margins
- XRT for nonsurgical candidates

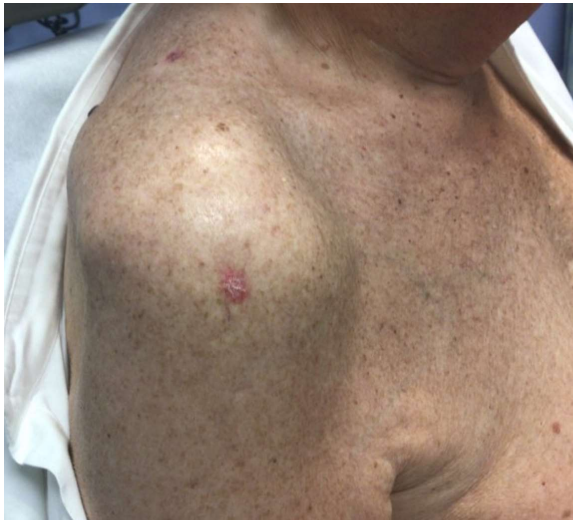
55 y/o

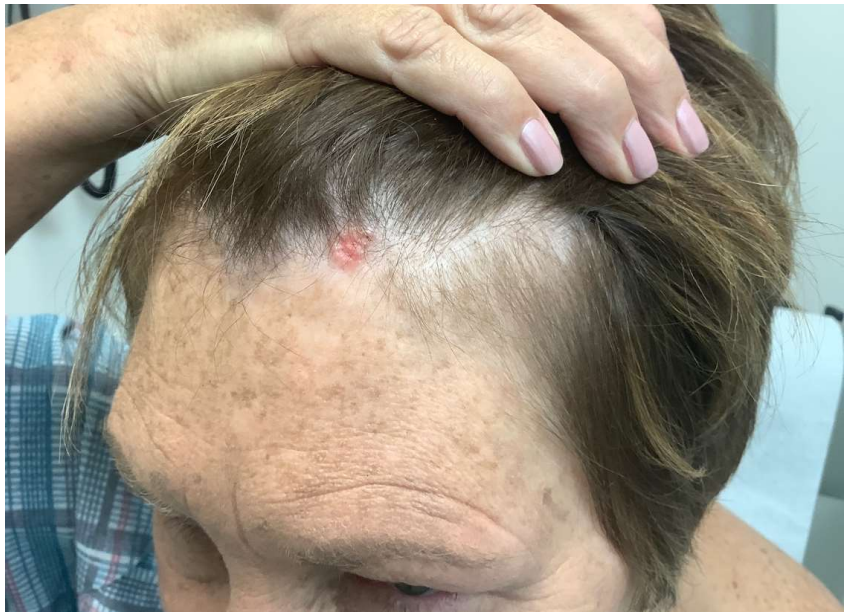
Presents to office with multiple non-healing sores on bilat lower ext present for 6-12mos

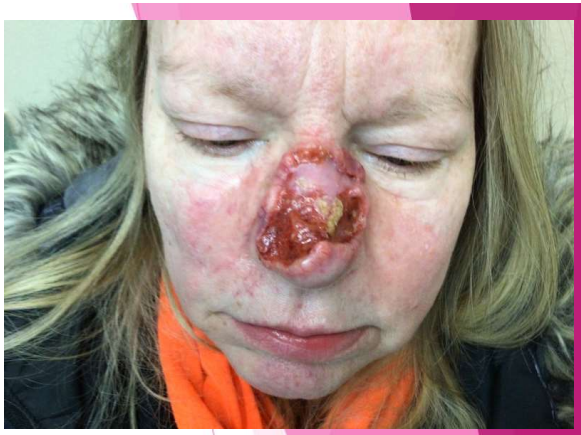


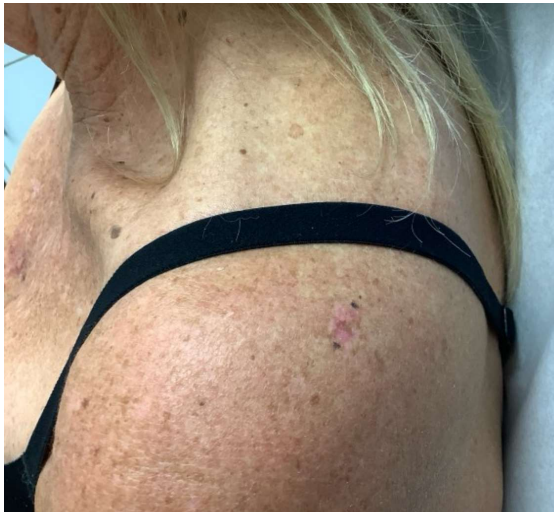
Basal Cell Carcinoma

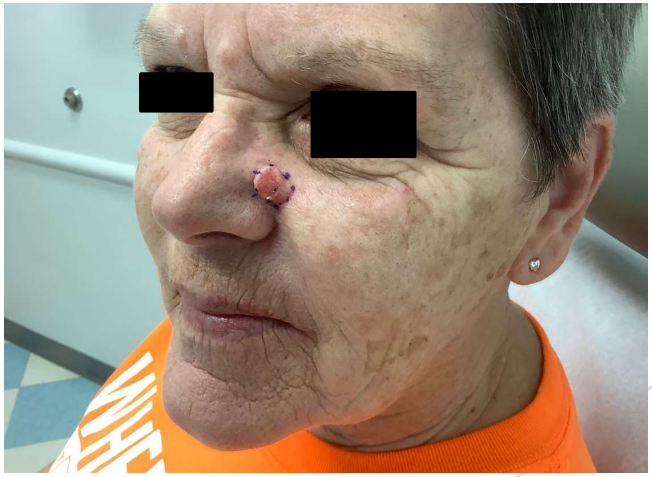
- Most common keratinocyte carcinoma
- Arises *de novo*; no known precursors
- More common in males than females; primarily seen in middle-aged to older adults; fair-skinned; rising incidence in young women
- UV exposure is greatest risk factor; intense episodes of b urning are more important than chronic long-term exposure
- Usually slow growing; may ulcerate and cause local destruction of surrounding tissue
- Metastases are rare
- Variants: nodular (pearly papule with telangiectasias and/or umbilication), superficial (erythematous thin plaque on trunk/extremity), pigmented, morpheaform (scar-like), micronodular, cystic, basosquamous
- DDX: nodular (IDN, fibrous papule, seb hyperplasia, invasive SCC, amelanotic melanoma); superficial (LPLK, AK, SCC in situ, psoriasis, seb derm, nummular eczema); morpheaform (scar, adnexal tumors); pigmented (melanocytic nevus, SK, pigmented SCC in situ, nodular melanoma)
- DX: biopsy

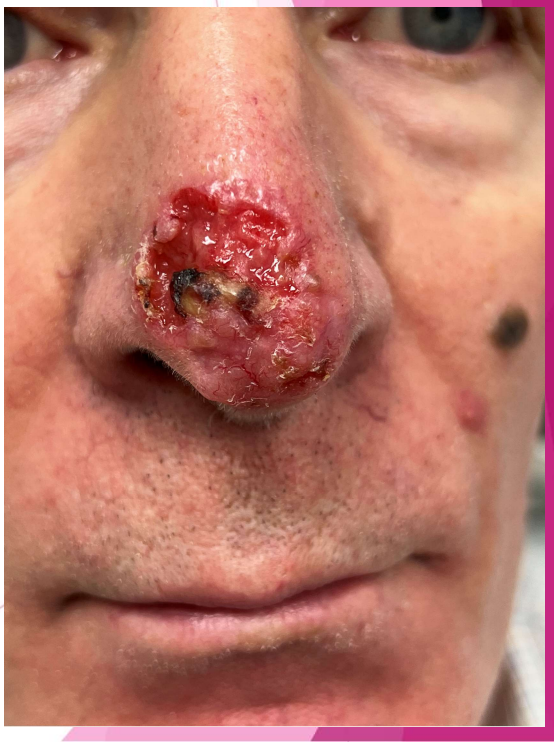






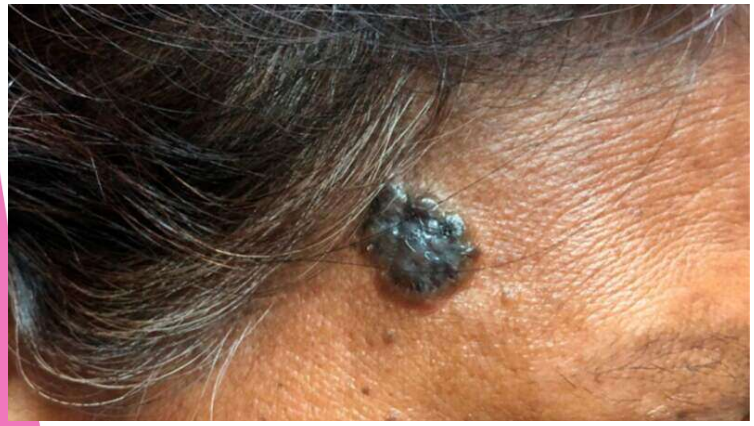


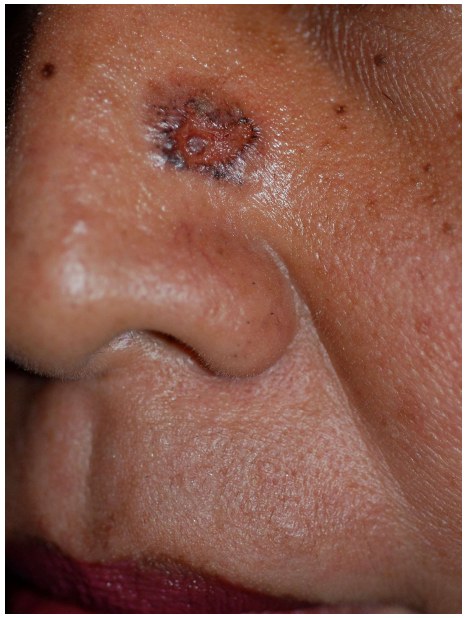


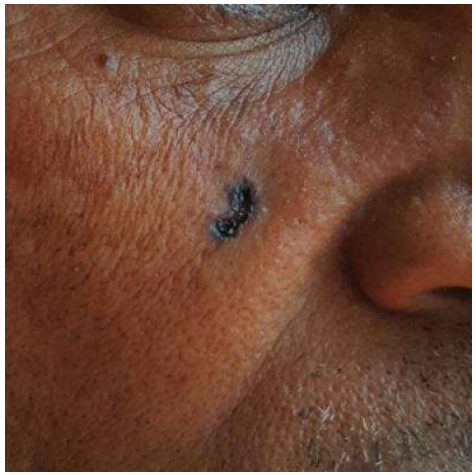


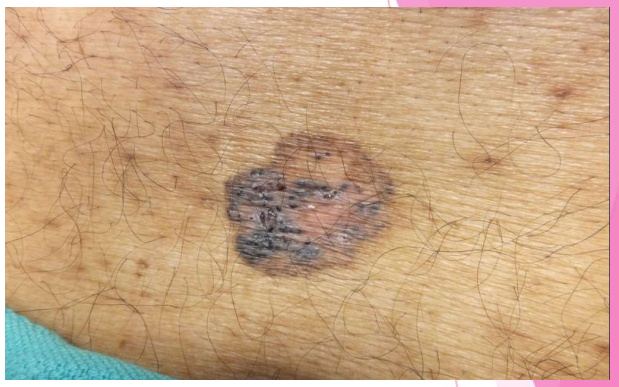
BCC: Skin of color

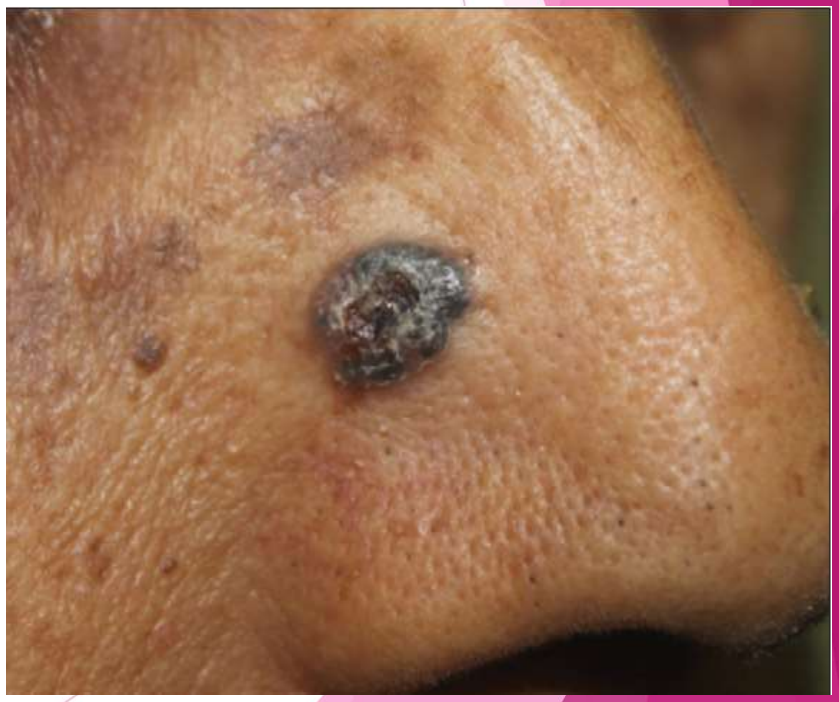
- Most common skin cancer in Hispanics and Asians
- Anatomic distribution: head and neck regions









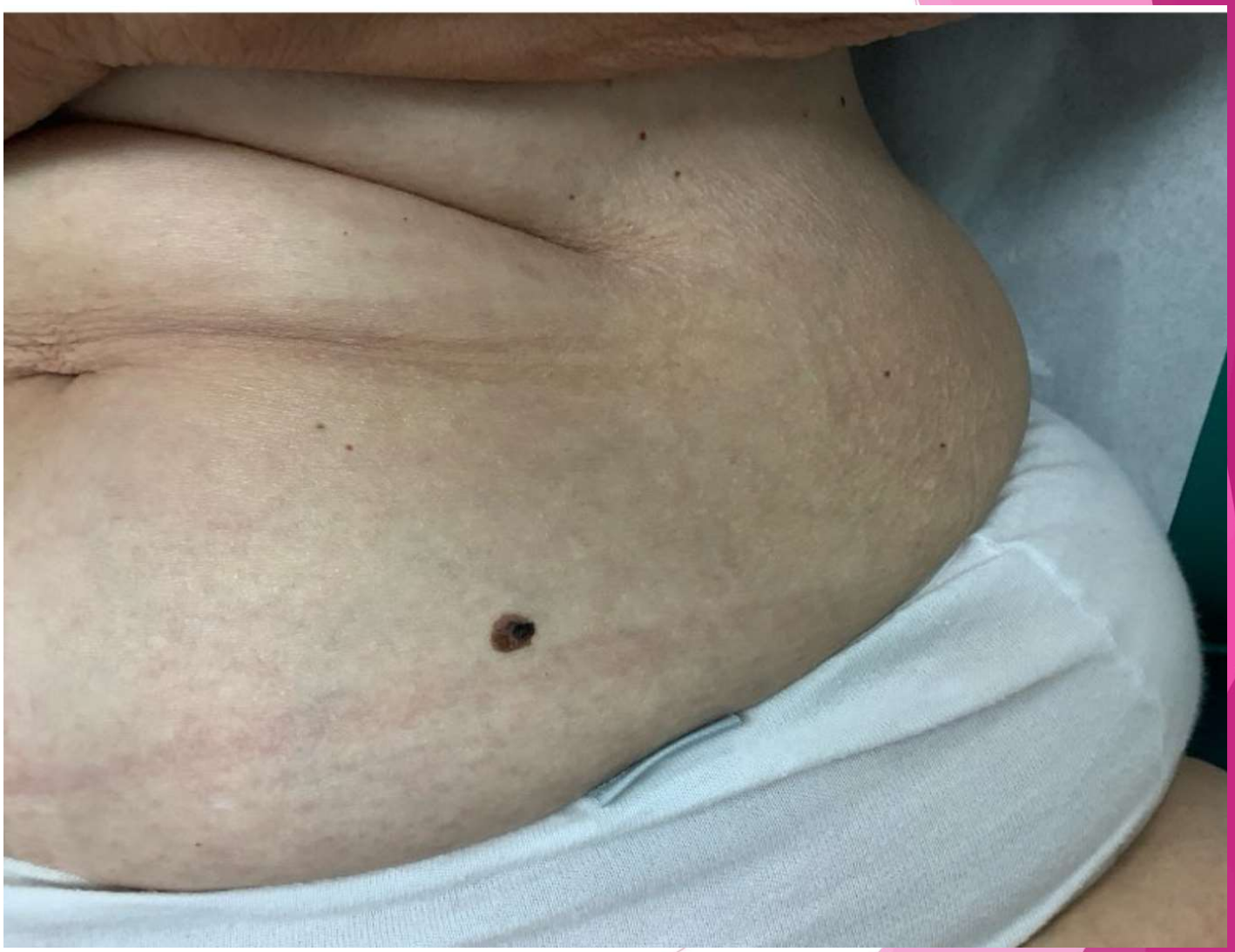


Treatment of Basal Cell Carcinoma

- Excision based on risk factors
  - Low risk: small in size
    - Standard excision with 4mm margins
    - Tangential excision with curettage
    - ED&C
  - High risk: poorly defined borders, recurrent tumor, immunosuppressed host, tumor at previous XRT, tumor at site of chronic inflammatory process or ulceration; rapidly growing tumor, neurologic symptoms, size: trunk & ext >20mm, cheeks, forehead, scalp, neck, pretibial >10mm, face, genitalia – any size
    - Mohs micrographic surgery
    - Standard excision with 10+mm margins
- XRT for nonsurgical candidates
- Nonsurgical candidates (primarily for superficial variant)
  - Topical imiquimod cream (5 days/wk x6wks)
  - Topical 5% 5-FU (BID x3-6wks)

51y/o

Presents to office with changing lesion present for ~6mos



Malignant Melanoma

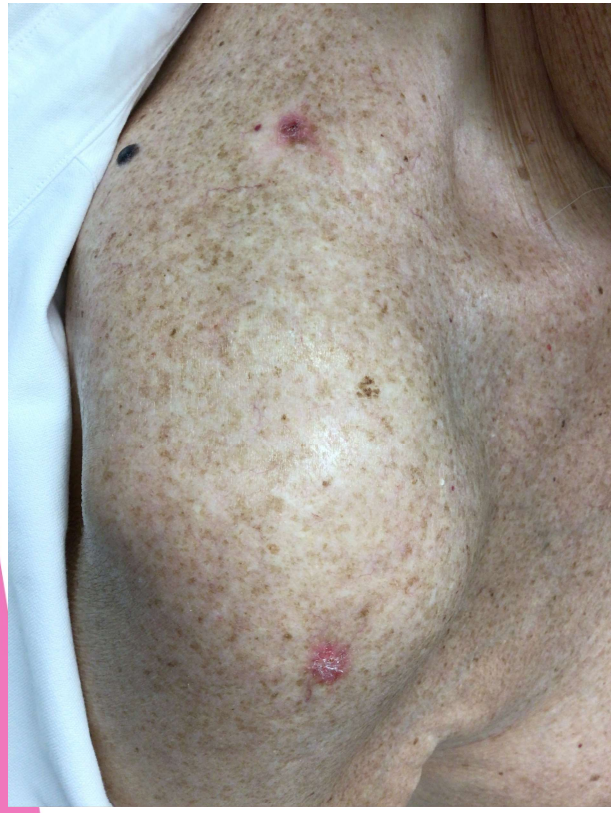
- Malignant tumor of melanocytes
- Some arising *de novo*, whereas others arise within precursor lesions
- Marked increase in incidence over past 40-50 years
- American Cancer Society 2023 US estimates:
  - 97,610 new cases of MM will be diagnosed in 2023
  - 7,990 persons expected to die of MM
  - MM 20x more common in Caucasian population compared to African American
  - Overall lifetime risk:
    - 2.6% (1 in 38) Caucasians
    - 0.1% (1 in 1,000) African Americans
    - 0.6% (1 in 167) Hispanics
  - Risk of MM increases as people age; average age of people when first diagnosed with MM is 65 years
  - MM is one of the most common cancers in young adults

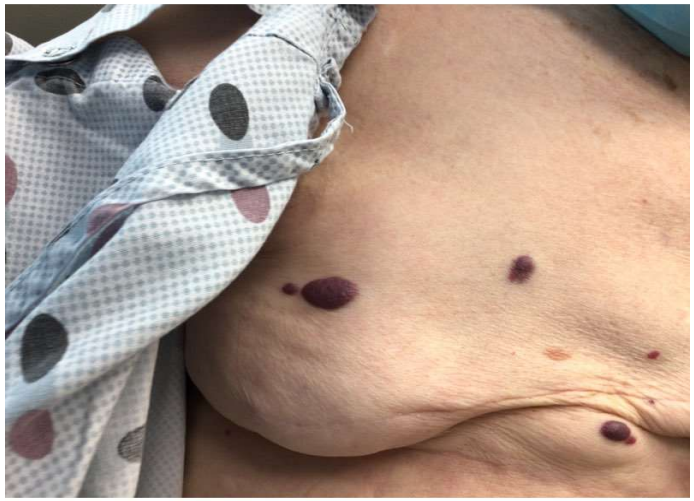
Malignant Melanoma

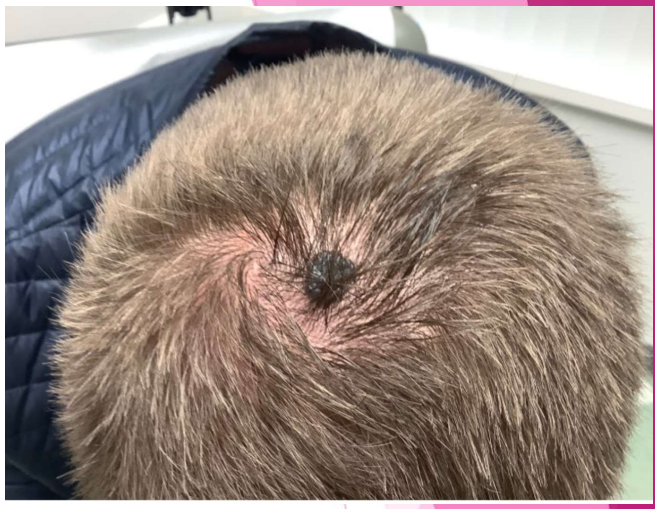
- Risk factors: genetic markers (CDKN2a mutation), Skin type I/II, Family history of atypical nevi or melanoma, Personal history of melanoma, Ultraviolet irradiation, particularly sunburns during childhood and intermittent burning exposures, Number (>50) and size (>5mm) of melanocytic nevi, Congenital nevi, Number of atypical nevi (>5), Atypical melanocytic nevus syndrome
- ***Asymmetry, Border, Color, Diameter, Elevation, Evolution, Firm, Growing***
- Variants: Melanoma in situ, lentigo maligna, superficial spreading, acral lentiginous, nodular
- Most frequent regional metastasis: lymph nodes, skin, and subcutaneous tissue (42-57%)
- Distant metastasis: lungs (18-36%), liver (14-29%), brain (12-20%), bone (11-17%), intestines (1-7%)
- DDX:
- DX: Complete excision with a 1-3mm margin of skin is the preferred method
  - For large lesions, an incisional biopsy or punch biopsy, deep enough to permit measurement of thickness; multiple punch biopsies may be necessary
  - For suspected lentigo maligna, a broad shave biopsy

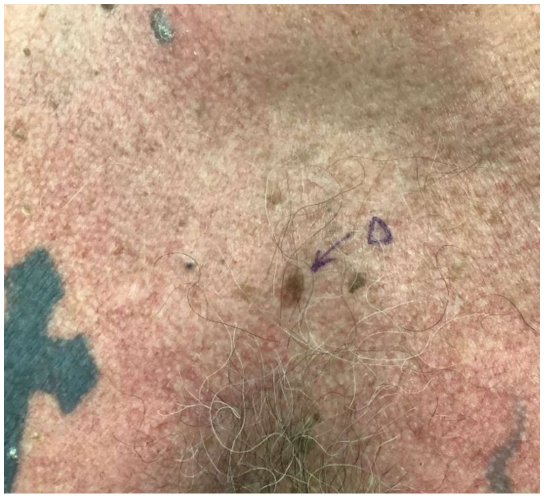
Malignant Melanoma

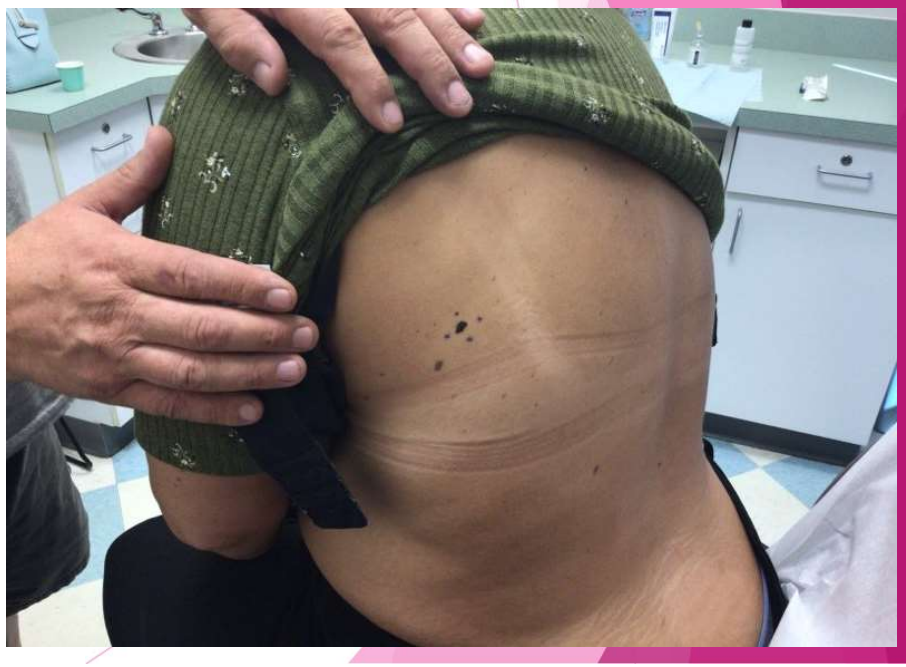
- DDX: atypical nevus, SK, pigmented BCC, pigmented SCC in situ, thrombosed angioma, dermatofibroma, etc.
- DX: Complete excision with a 1-3mm margin of skin is the preferred method
  - For large lesions, an incisional biopsy or punch biopsy, deep enough to permit measurement of thickness; multiple punch biopsies may be necessary
  - For suspected lentigo maligna, a broad shave biopsy



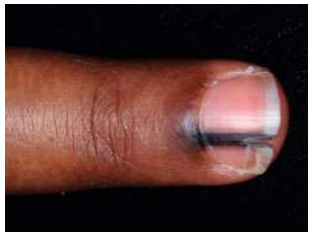


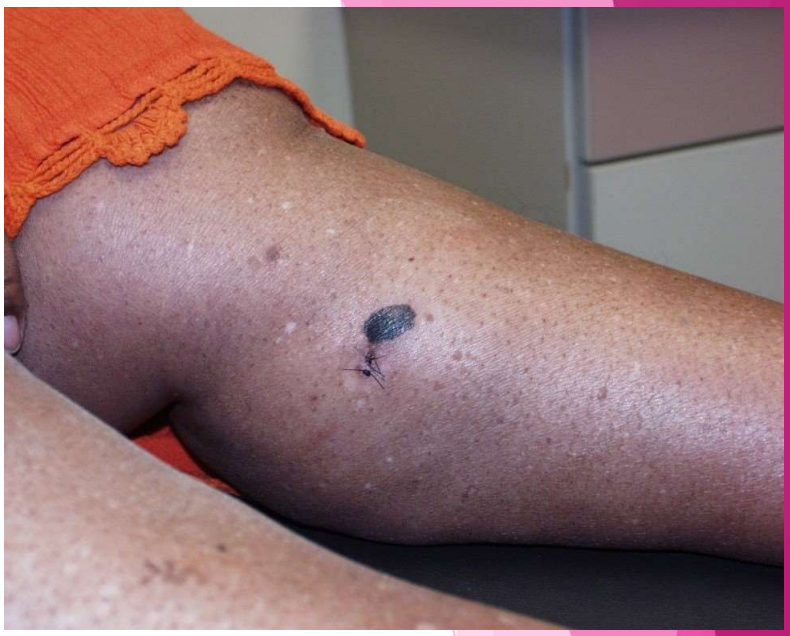


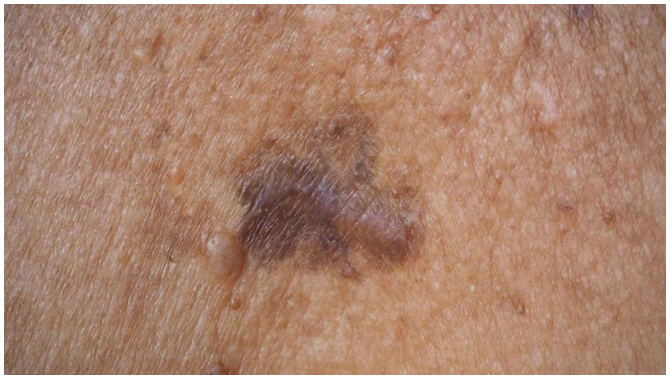


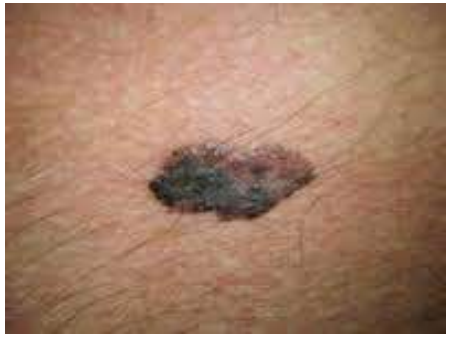


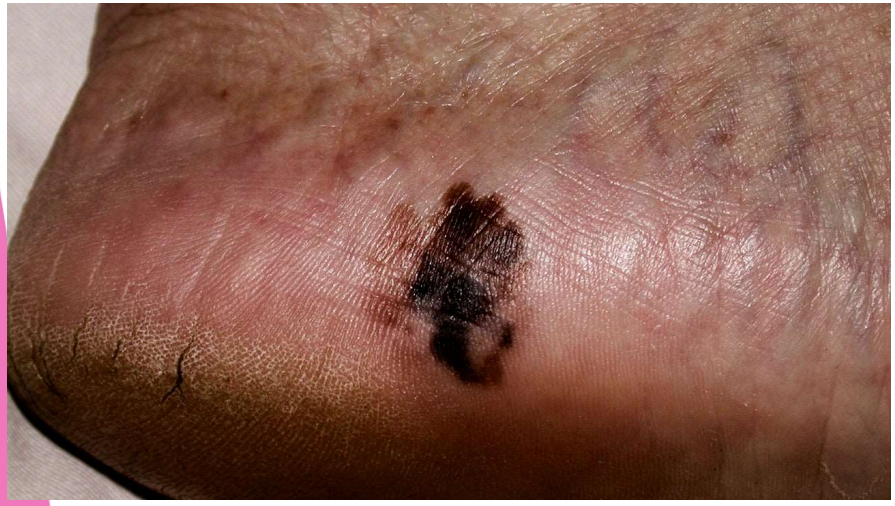
MM: Skin of color

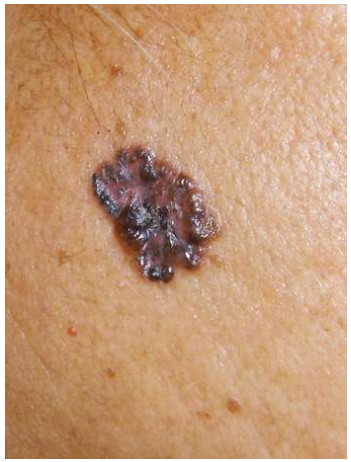


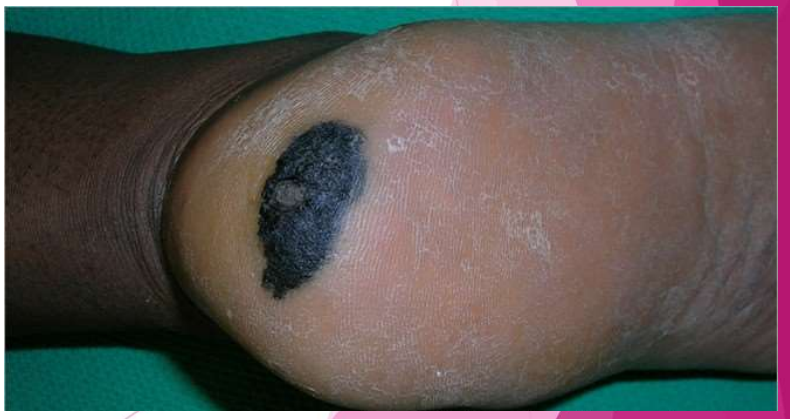










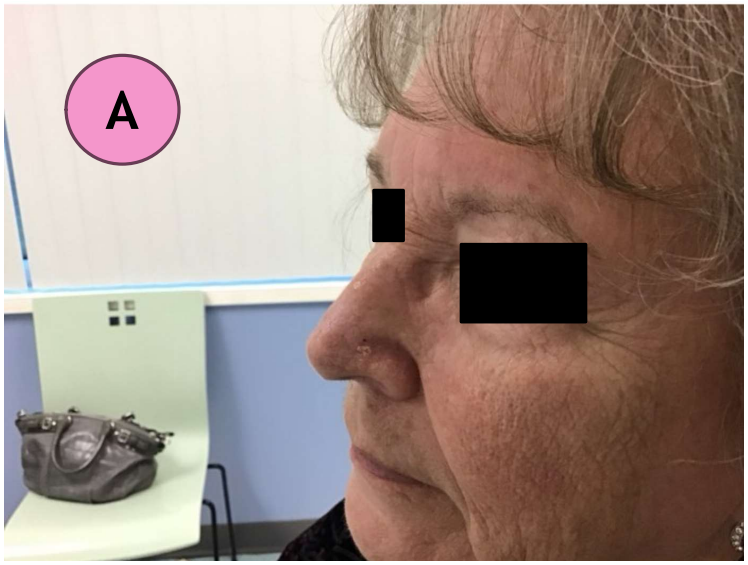


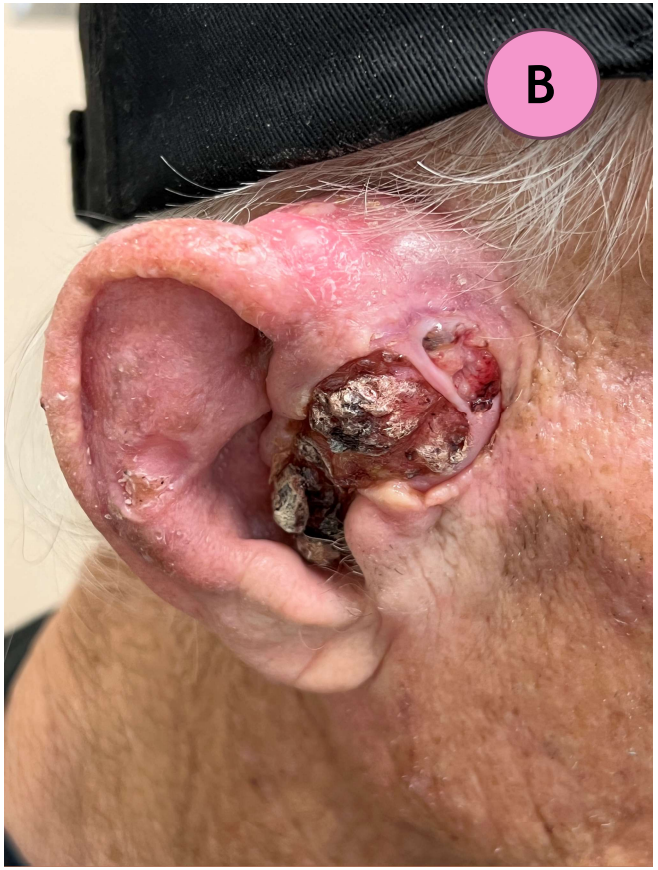
Treatment of Malignant Melanoma

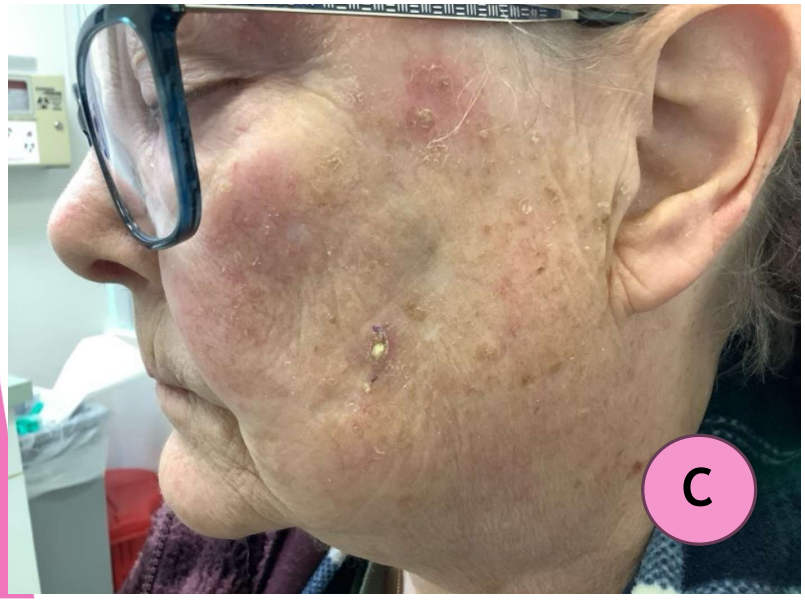
- Ensure that total body skin exam is performed along with palpation of skin and lymph node basin prior to excision
- Encourage eye exam and oral exam, notify those providers of the diagnosis
- Surgical margins are based on Breslow depth assuming no additional concerning features
- Melanoma in-situ: 0.5 cm margin
- $\leq$ 1.1 mm thickness: 1.0 cm margin
- 1.1-2 mm thickness: 1-2 cm margin
- >2 mm thickness: 2 cm margin
- Lentigo maligna and acral lentiginous melanoma: Mohs micrographic surgery
- Nail apparatus melanoma: may require amputation or skin grafting
- High risk patients may need imaging for identification of metastatic disease
- Ultrasound of lymph node basin
- CT of chest, abdomen and pelvis
- PET scan
- Cranial MRI
- May monitor serum LDH serially over time

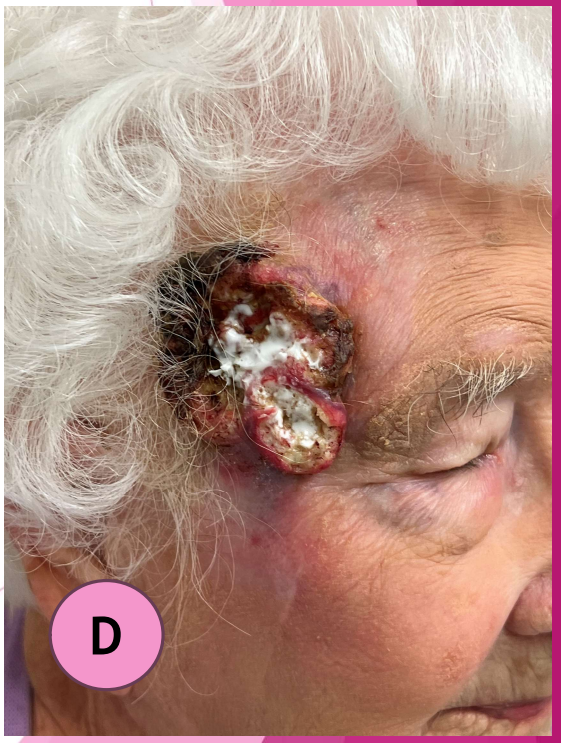
Malignant Melanoma

- **MM of the skin is approaching epidemic proportions:** incidence is on the rise (in 1935 risk of developing MM 1 in 1,500 and now 1 in 38); it is the leading fatal illness arising in the skin; death from MM occur at a younger age than most other cancers; and MM is among the most common type of cancer in young adults
- **Early recognition and excision of primary MM = Virtual Cure:** most critical tool for conquering this disease is identification of early MM; total skin examinations should be done routinely
- **All healthcare providers have the responsibility of detecting early MM:** early detection of MM assures increased survival; do not overlook pigmented lesions
- **Examination of all acquired pigmented lesions according to the ABCDE Rule:** this rule analyzes pigmented lesion according to symmetry, border, color, diameter, elevation and evolution


A


B


C


D

References

- Eisen, Daniel B., et al. “Guidelines of care for the management of actinic keratosis.” *Journal of the American Academy of Dermatology*, vol. 85, no. 4, 2 Apr. 2021, https://doi.org/10.1016/j.jaad.2021.02.082.
- Kim, John Y.S., Jeffrey H. Kozlow, Bharat Mittal, Jeffrey Moyer, Thomas Olencki, et al. “Guidelines of care for the management of basal cell carcinoma.” *Journal of the American Academy of Dermatology*, vol. 78, no. 3, 10 Jan. 2018, pp. 540–559, https://doi.org/10.1016/j.jaad.2017.10.006.
- Kim, John Y.S., Jeffrey H. Kozlow, Bharat Mittal, Jeffrey Moyer, Thomas Olenecki, et al. “Guidelines of care for the management of cutaneous squamous cell carcinoma.” *Journal of the American Academy of Dermatology*, vol. 78, no. 3, 10 Jan. 2018, pp. 560–578, https://doi.org/10.1016/j.jaad.2017.10.007.
- Swetter, Susan M., et al. “Guidelines of care for the management of primary cutaneous melanoma.” *Journal of the American Academy of Dermatology*, vol. 80, no. 1, 1 Nov. 2018, pp. 208–250, https://doi.org/10.1016/j.jaad.2018.08.055.

Questions??

- Tim Kessler

  tmjkessler@gmail.com