Cutaneous Malignancies

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GRAND RAPIDS, MICHIGAN

POTENTIAL CONFLICTS OF INTEREST
RELEVANT FINANCIAL DISCLOSURES

- **Clinical researcher for Castle Bioscience Genetic assay for High Risk Squamous Call carcinoma**

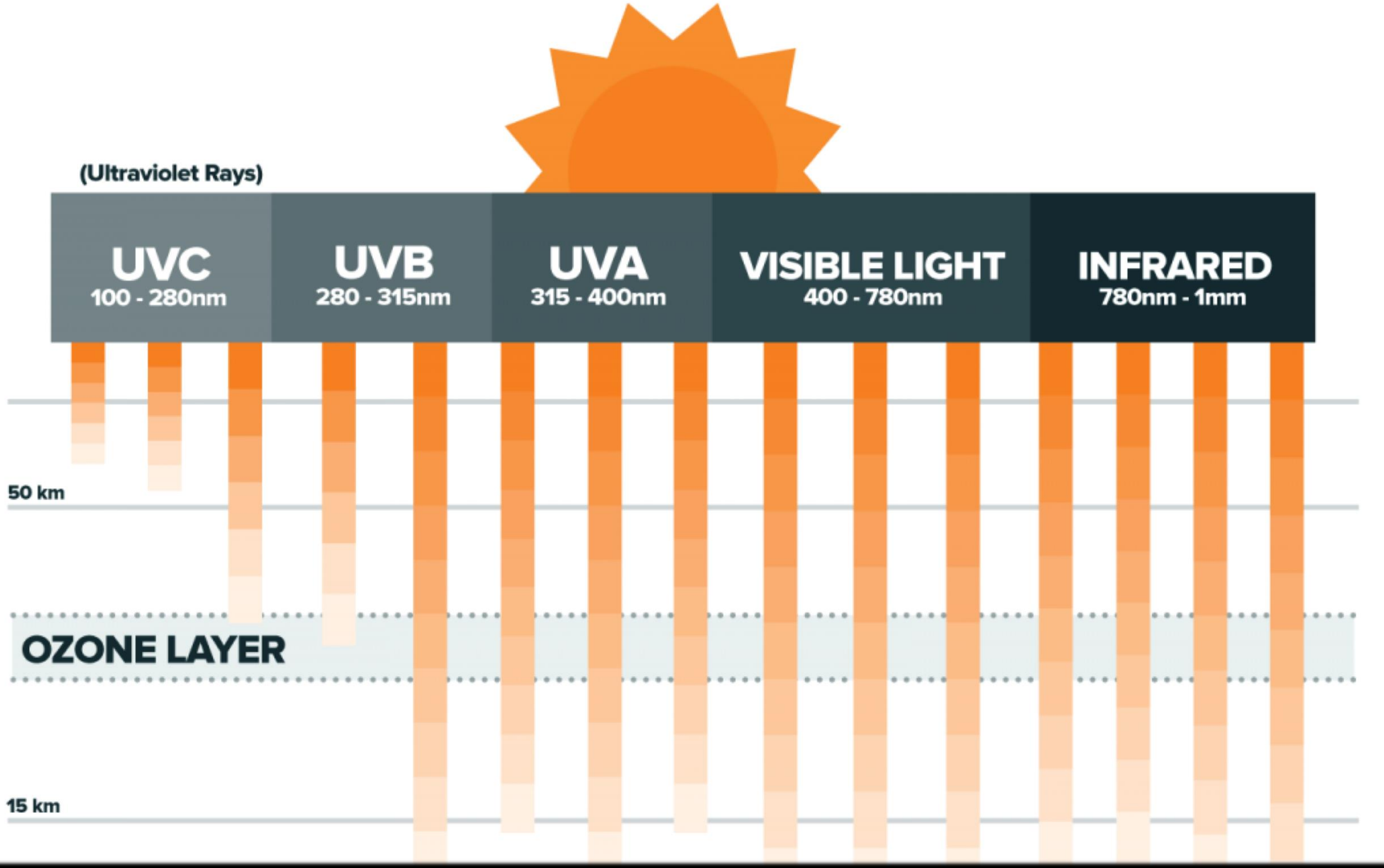

IRISH GIRL
SUNBATHING
NO, NOT HER... THE OTHER ONE

So, what’s the problem?

“It’s me, hi, I’m the problem its me..”

-Taylor Swift

And what we do…


(Ultraviolet Rays)
UVC
100 - 280nm
UVB
280 - 315nm
UVA
315 - 400nm
VISIBLE LIGHT
400 - 780nm
INFRARED
780nm - 1mm
50 km
OZONE LAYER
15 km

SKIN CANCER INCIDENCE RATES VARY BY RACIAL GROUP

RATE PER 100,000 POPULATION

- **Basal cell carcinoma**
  - 1-2 African American
  - 5-6 Chinese
  - 15-17 Japanese (30/26 residents of Hawaii/Okinawa)
  - 50-90 Hispanics
  - 1,500-2,000 Non-Hispanic White
- **Squamous cell carcinoma**
  - 3 African- American
  - 18-19 Chinese
  - 23 Japanese (Hawaii)
  - 15-30 Hispanics
  - 1,000-1,500 Non- Hispanic White
- **Melanoma**
  - 1 African- American
  - 1.6 Asian/Pacific Islander
  - 4.3 Hispanics
  - 7 Indian/Alaskan Native
  - 37 Non- Hispanic White

DERMATOLOGY FOCUS " CHALLENGES AND OPPORTUNITY IN ADDRESSING HEALTH DISPARITIES IN SKIN CANCER IN SKIN OF COLOR PATIENTS" ADEWOLE ADAMSON, MD. JULY, 2021.

BY THE NUMBERS…

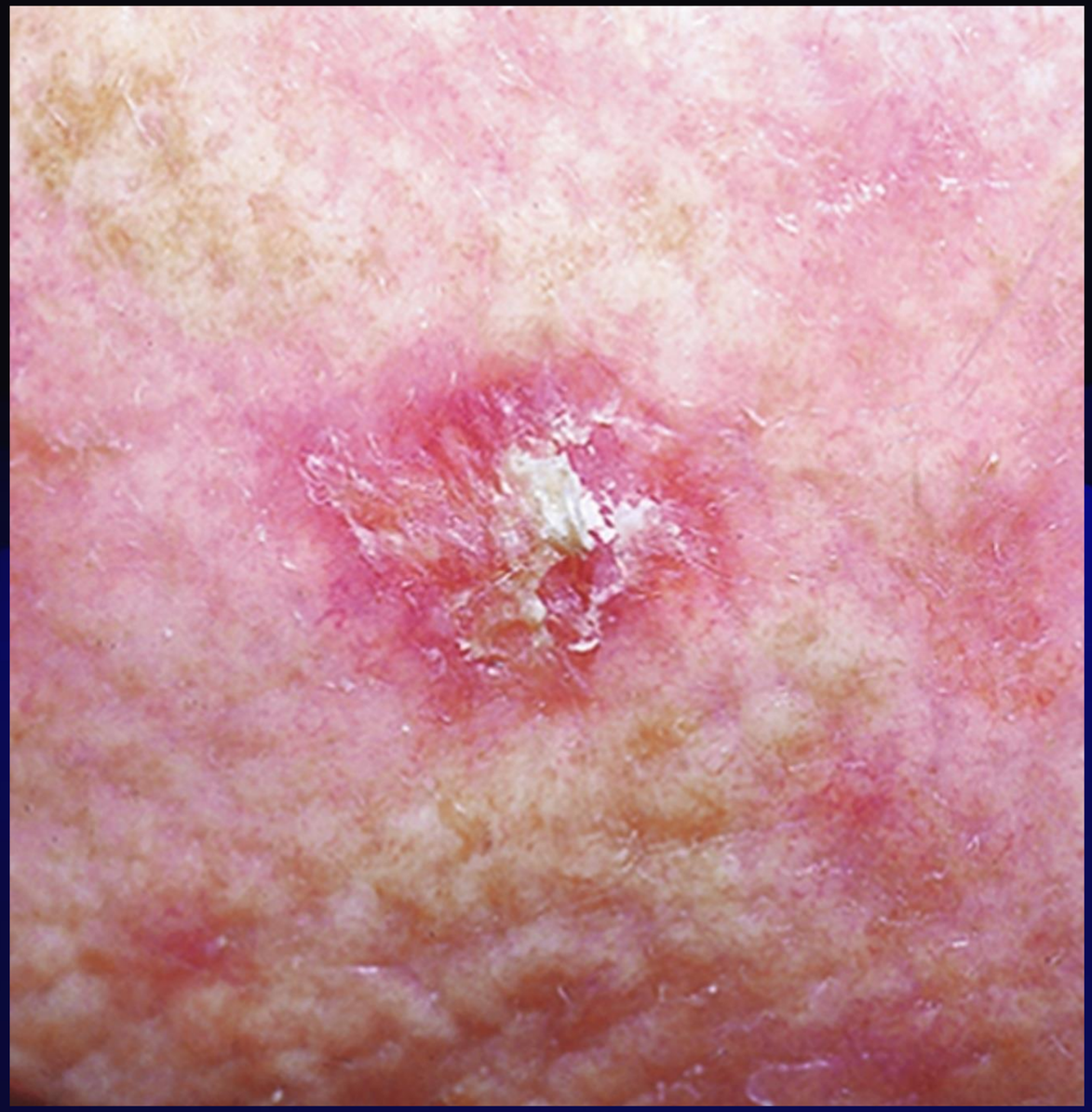
- Skin Cancer is the **MOST COMMON CANCER** in the United States and worldwide.
- 1 in 5 Americans will develop skin cancer by age of 70
- More than 2 people die of skin cancer in the U.S. every hour.
- Having 5 or more sunburns doubles your risk for melanoma.
- When detected early, the 5-year survival rate for melanoma is 99 percent.

HTTPS://WWW.SKINCANCER.ORG/SKIN-CANCER-INFORMATION/SKIN-CANCER-FACTS/

Actinic Keratosis

Actinic Keratosis

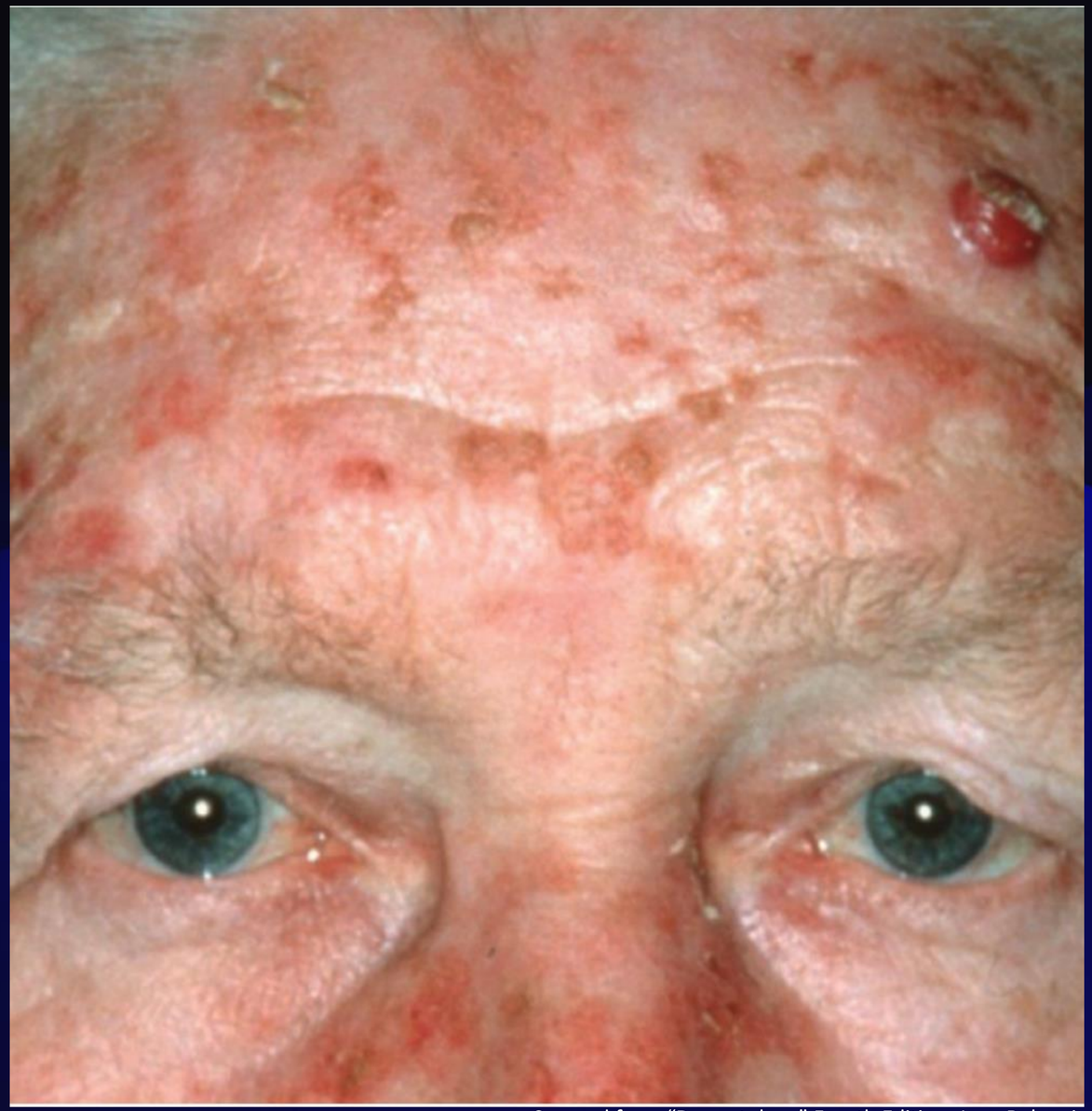
Single or multiple, erythematous discrete, rough to coarse sandpaper scaly lesions. Distributed over on habitually sun-exposed skin on adults.
“Better felt than seen”



PHOTOGRAPH SOURCED FROM “DERMATOLOGY” JEAN L. BOLOGNIA, MD 2003

Actinic Keratosis

Increased risk of evolving into squamous cell carcinoma. Risk varies by studies, ~1% risk annually per lesion.



Sourced from “Dermatology” Fourth Edition. Jean Bolognia.

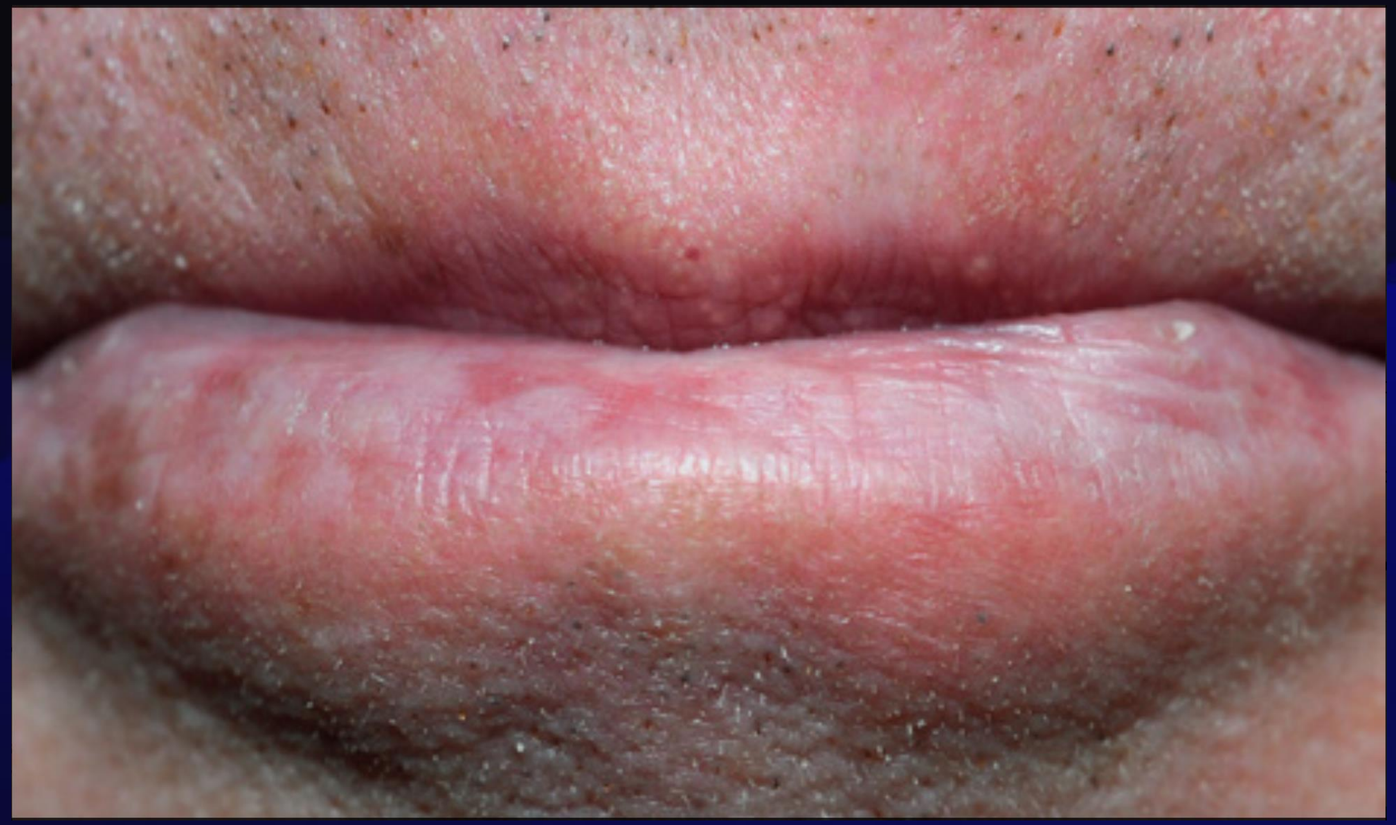
Actinic Cheilitis

Moderate to severe photodamage.

Well-demarcated, erythematous papules or thin plaques with scale, areas of leukoplakia may also be present.

Low threshold for biopsy

The potential for evolving into invasive SCC is higher for actinic cheilitis than it is for classic AKs.



TREATMENT

Actinic Keratosis

Cryosurgery
Curettage +/− electrosurgery
Fluorouracil, topical
Imiquimod
Diclofenac
Ingenol mebutate
Chemical peel
Dermabrasion
Resurfacing lasers
Photodynamic therapy

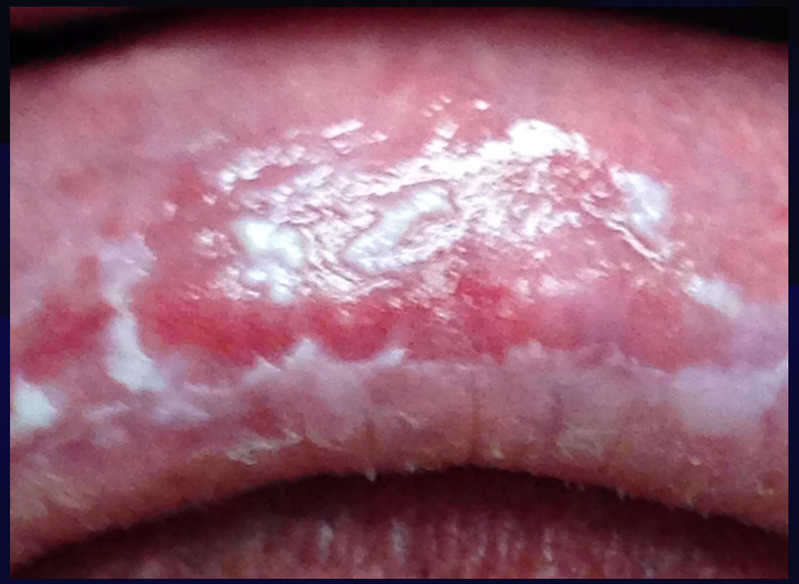
Actinic Cheilitis

Cryosurgery
Electrosurgery
Chemical peel
Laser ablation
Vermilionectomy
Imiquimod

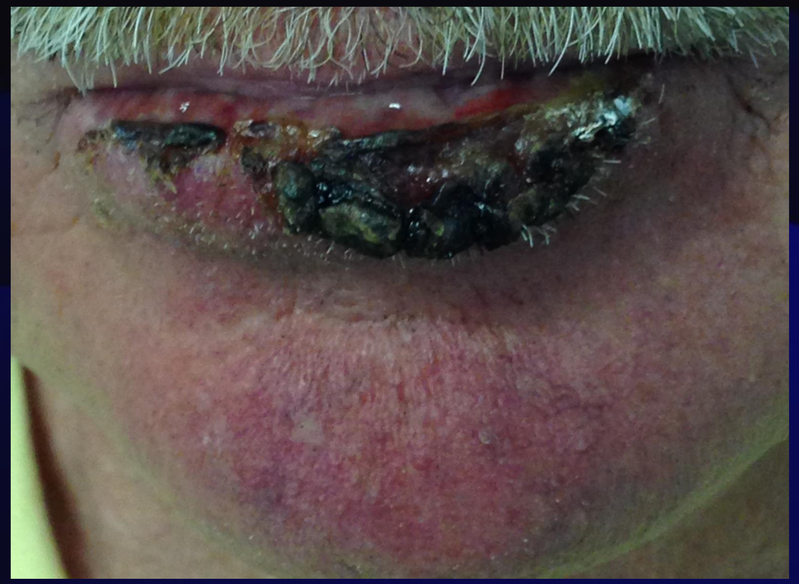
Neville J, Welch E, Leffell D. Management of nonmelanoma skin cancer in 2007. Nat Clin Pract Oncol. 2007;4:462–469.

Actinic Cheilitis

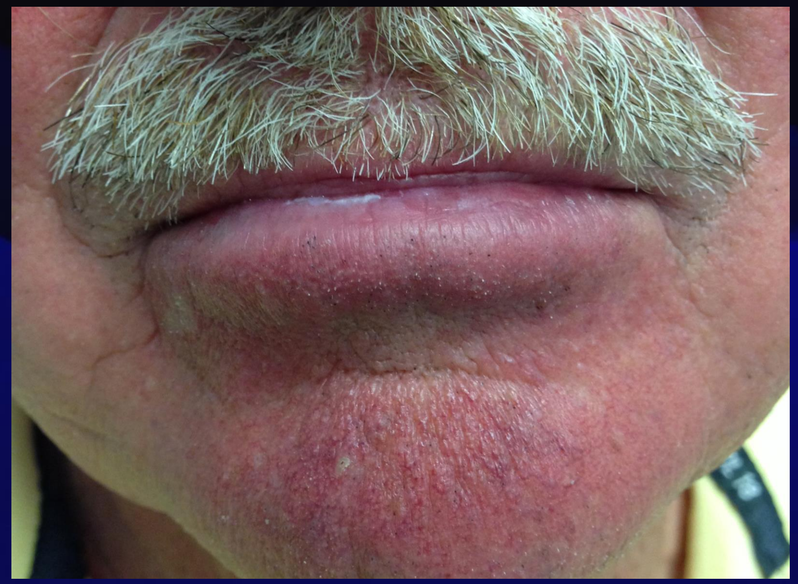
Pretreatment



Two weeks



8 weeks Post



5% Fluorouracil, topical cream was used for field therapy.

Photodynamic (PDT)

A specialized light is used to activate a medicine, Levulan® (5-aminolevulinic or ALA), for several medical and cosmetic procedures with excellent results. PDT with blue light is FDA-approved for the removal of scalp and facial pre-cancerous zones and actinic keratoses.

~~HTTPS~~://WWW.PERAZADERM.COM/NEW-BLU-U-BLUE-LIGHT-TREATS-PRE-CANCEROUS-ZONES-ROSACEA-ACNE-AND-MORE/

Cryosurgery

(Liquid nitrogen)

Boiling point -195.8 celsius

Temperature for cell death:

- Melanocyctes (most sensitive) -5 celsius
- Keratinocytes -20 to -30 celsius
- Fibroblasts -35 to -40 celsius

Rapid freezing with slow thawing (favors intracellular ice formation)

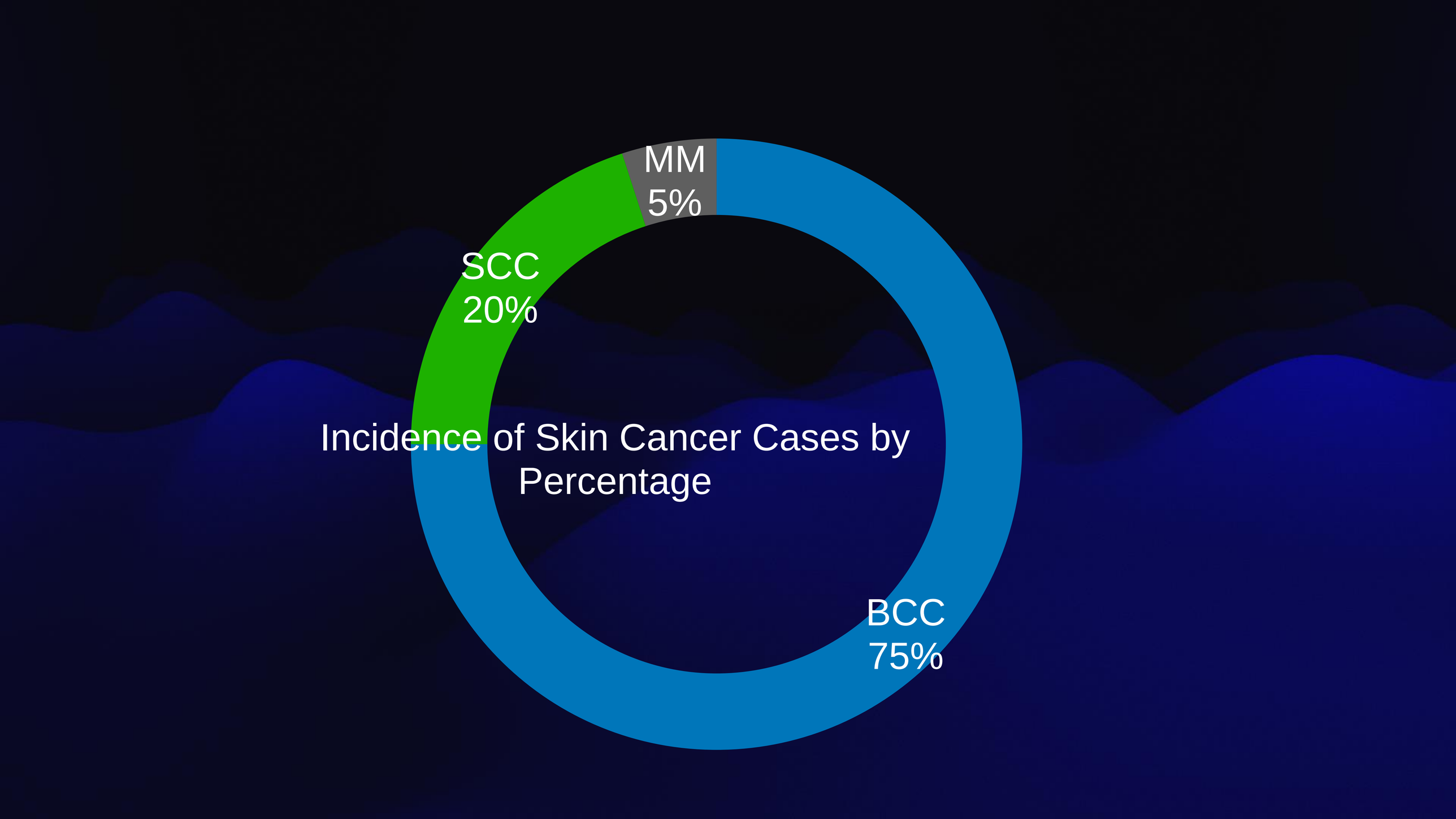
REVIEW OF DERMATOLOGY. ALIKHAN 2017

Basal Cell Carcinoma

First Lady Jill Biden Undergoes Mohs Surgery

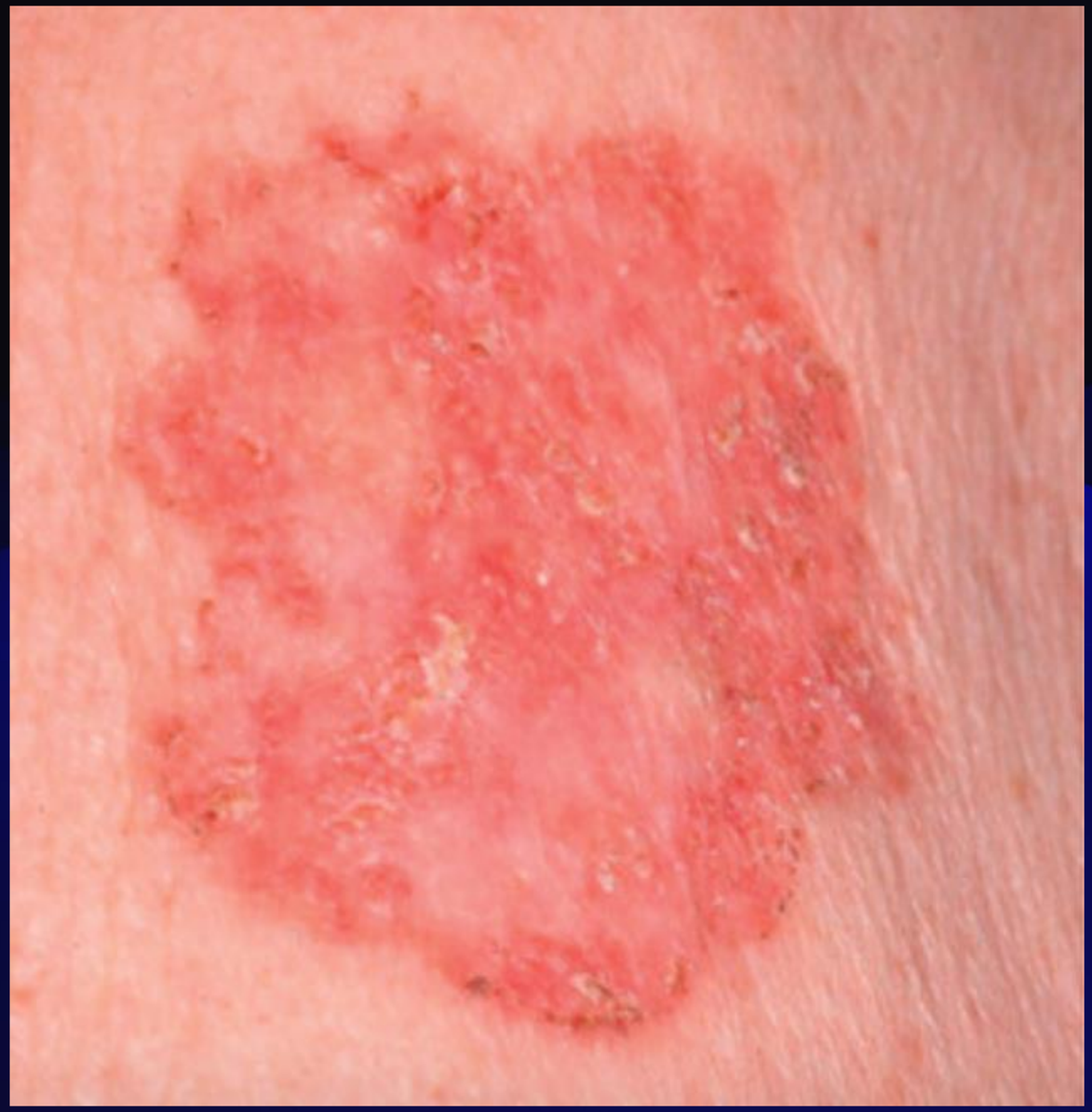
BY VICTORIA KOPEC • JANUARY 11, 2023

HTTPS://WWW.SKINCANCER.ORG/BLOG/FIRST-LADY-JILL-BIDEN-UNDERGOES-MOHS-SURGERY/


MM
5%
SCC
20%
Incidence of Skin Cancer Cases by Percentage
BCC
75%

Superficial Basal Cell Carcinoma

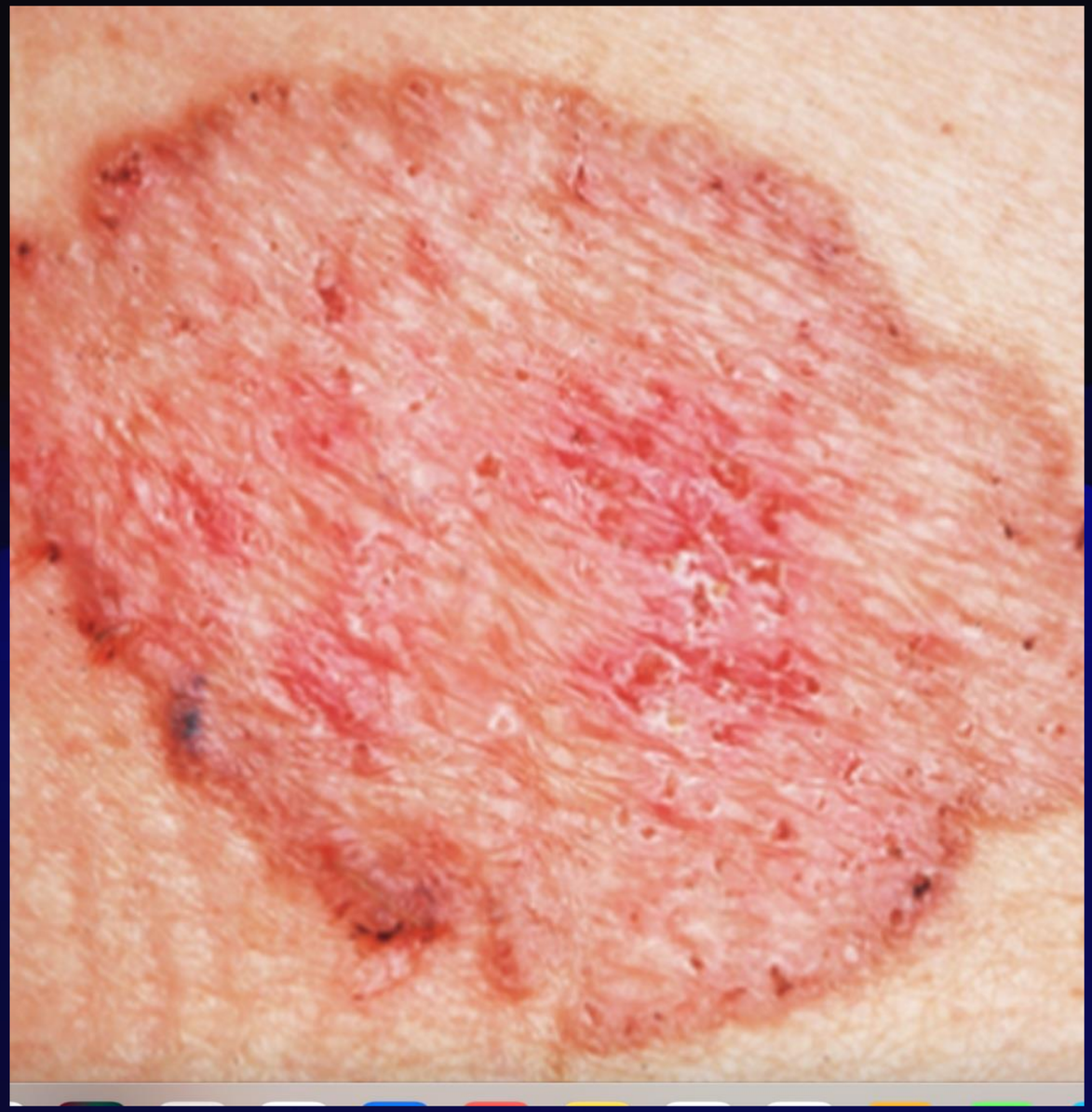
- Well-circumscribed, erythematous, macule/patch or thin papule/plaque.
- Findings include focal scale and/or crusts, a thin rolled border, atrophy and hypopigmentation.
- Mean age at diagnosis is 57 years.
- Favors the trunk and extremities; less often, it occurs in the head and neck region.
- Multiple lesions may be present.



PHOTOGRAPH SOURCED FROM "DERMATOLOGY" JEAN L. BOLOGNIA, MD 2018

Pigmented Basal Cell Carcinoma

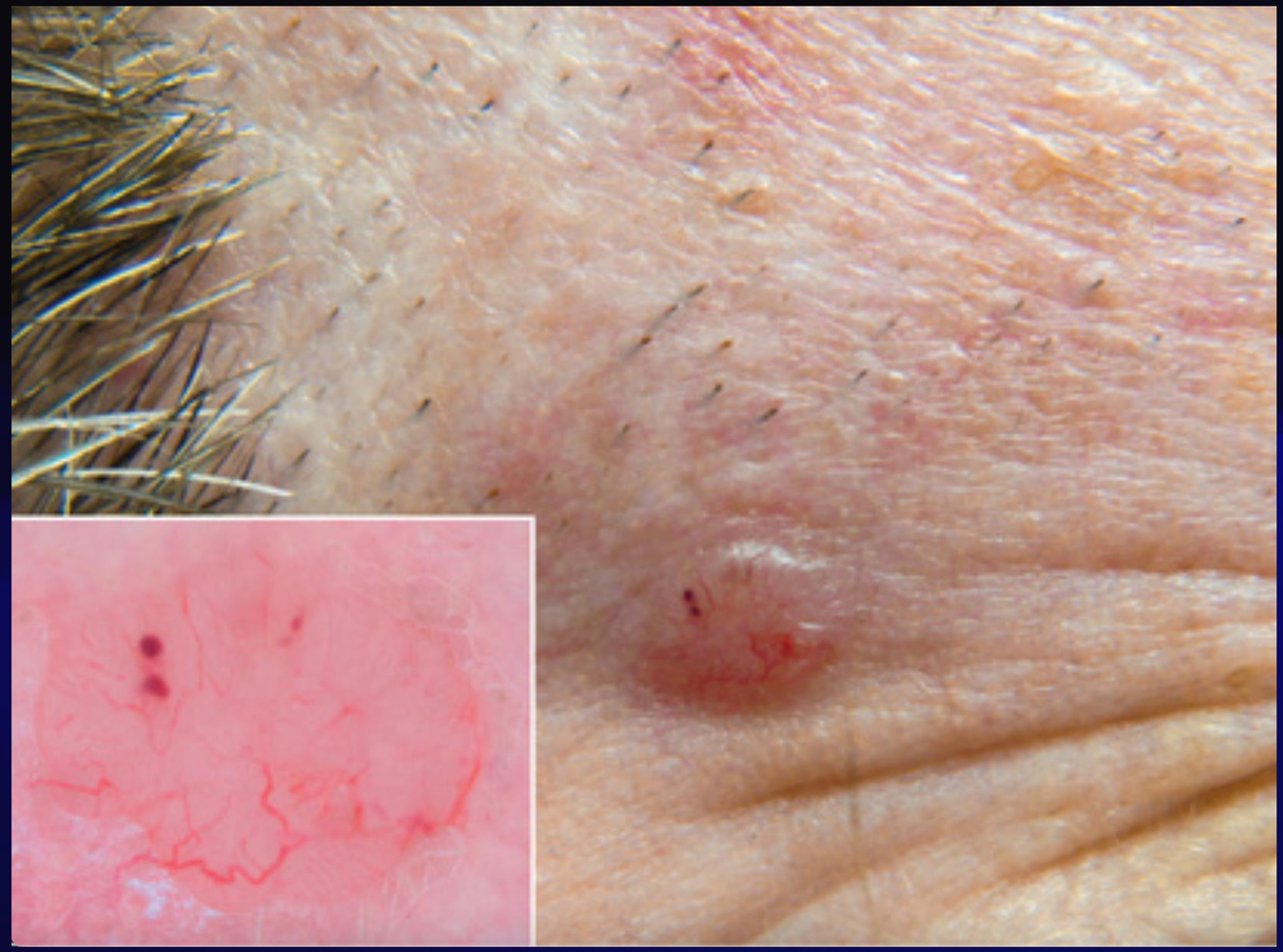
- Variable amounts of melanin (pigmentation); in larger lesions.
- Areas of spontaneous regression may be present.
- Basal Cell Carcinoma can have pigmentation, not always “pearly or transucent”



PHOTOGRAPH SOURCED FROM “DERMATOLOGY” JEAN L. BOLOGNIA, MD 2003

Nodular Basal Cell Carcinoma

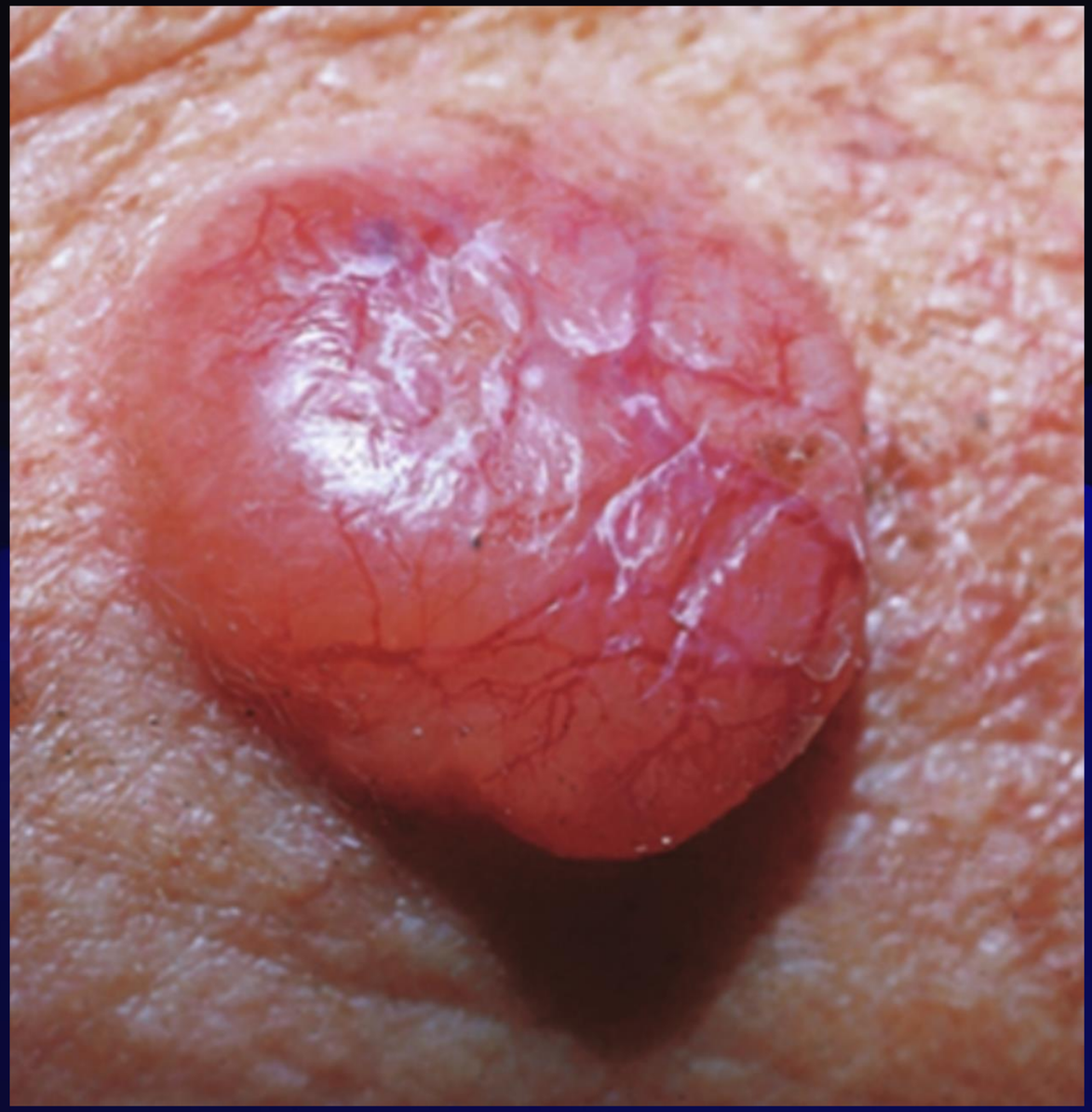
- Nodular BCC is the most common subtype (~50%).
- Sites of predilection are the face, especially the cheeks, nose, nasolabial folds, forehead and eyelids.



PHOTOGRAPH SOURCED FROM “DERMATOLOGY” JEAN L. BOLOGNIA, MD 2018

Nodular Basal Cell Carcinoma

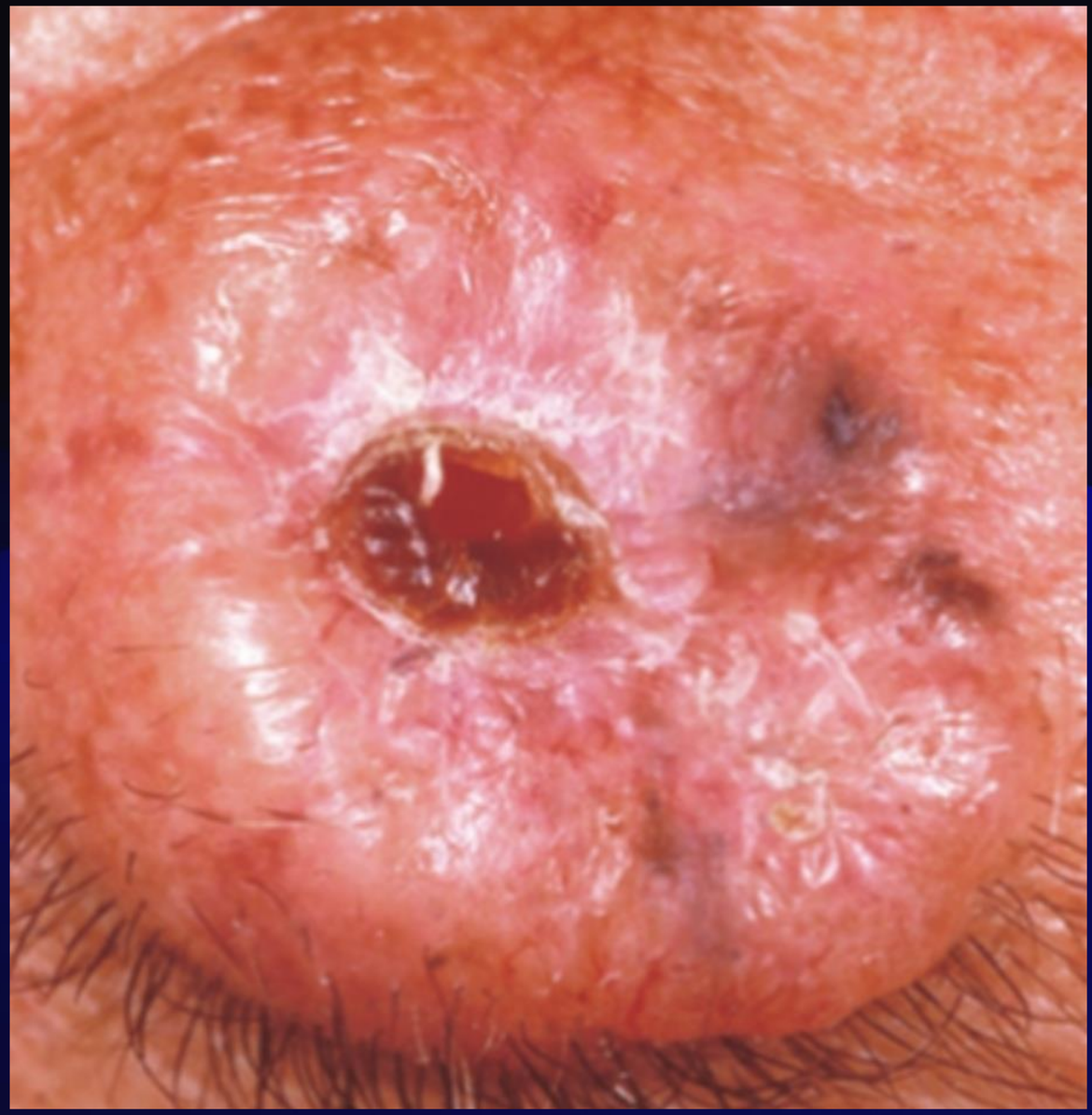
- Shiny, pearly papule or nodule with a smooth surface and the presence of arborizing telangiectasias.



PHOTOGRAPH SOURCED FROM “DERMATOLOGY” JEAN L. BOLOGNIA, MD 2003

Nodular Basal Cell Carcinoma

- Can enlarge and ulcerate (rodent ulcer, phagedenic ulcer), but an elevated rolled border usually remains and is a clinical clue to the diagnosis.



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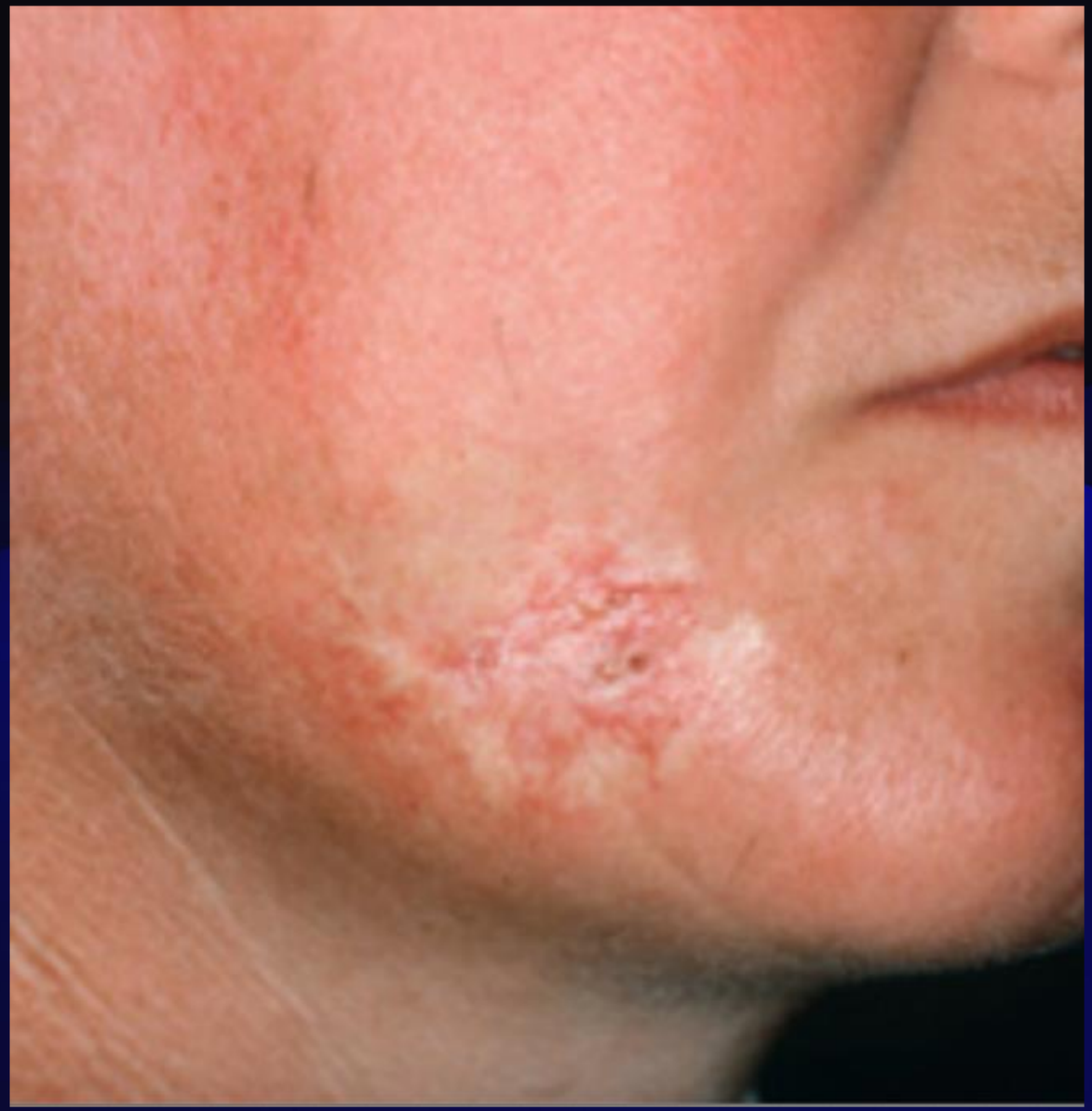
Morpheaform Basal Cell Carcinoma

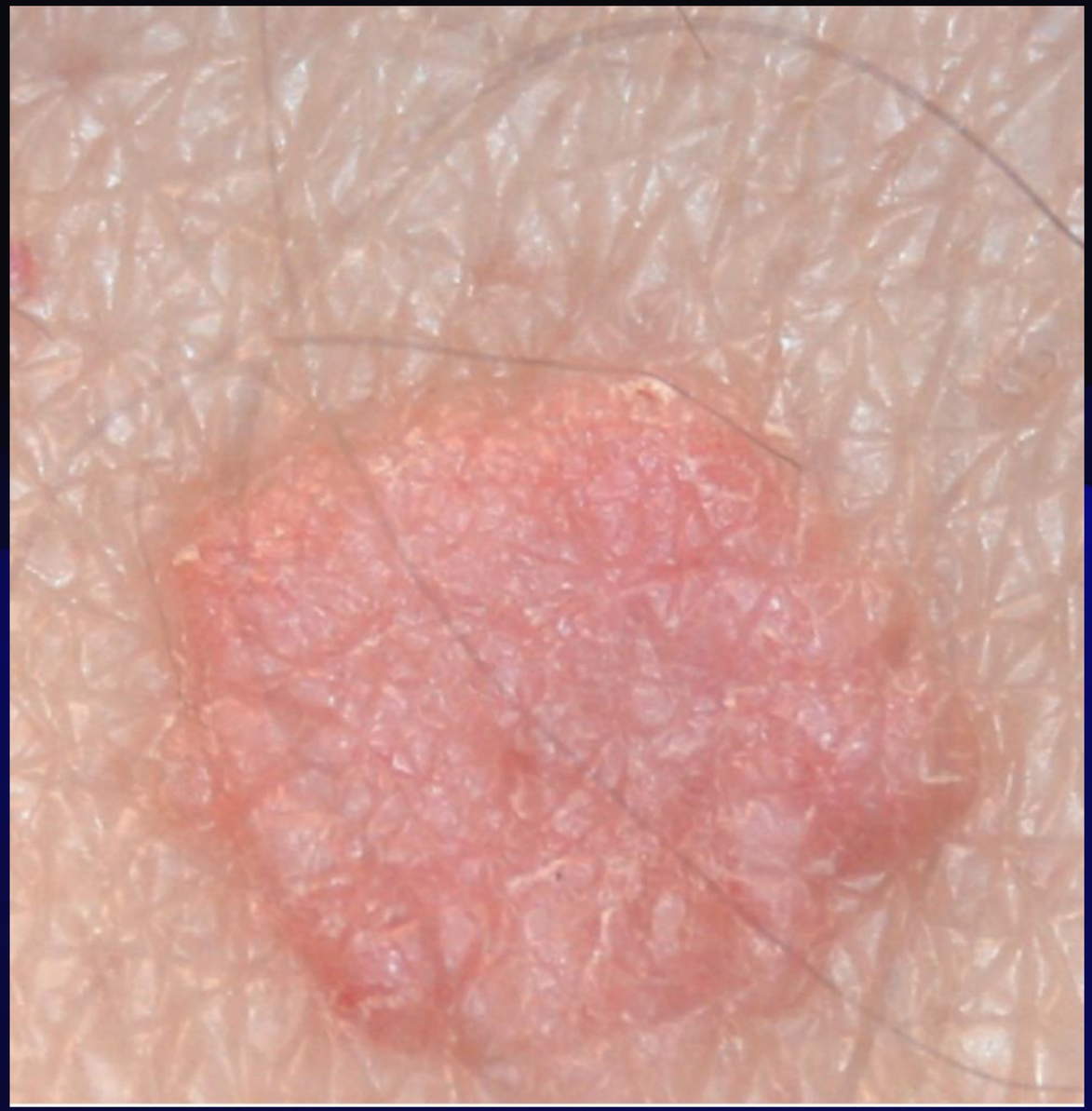
- Less common subtype presents as a slightly elevated to even depressed area of induration that is usually light pink to white in color and has ill-defined borders.
- May resemble a scar or plaque of morphea.
- Typically smooth, although crusts with underlying erosions or ulcerations as well as superimposed papules may be observed.
- More aggressive, with extensive local destruction.



PHOTOGRAPH SOURCED FROM "DERMATOLOGY" JEAN L. BOLOGNIA, MD 2018

Fibroepithelioma of Pinkus variant of Basal cell carcinoma

- Rare variant of BCC, a skin-colored or pink, sessile plaque or pedunculated papulonodule with a smooth surface.
- Favors trunk, especially the lower back.
- Of note, some experts believe that fibroepithelioma of Pinkus is a variant of trichoblastoma (not BCC).
- Dr. Pinkus was from Wayne State University.
- (Still has Pinkus Laboratory for Dermatopathology)



PHOTOGRAPH SOURCED FROM "DERMATOLOGY" JEAN L. BOLOGNIA, MD 2018

TREATMENT

Superficial

Cryosurgery
Curettage +/− electrosurgery
Laser ablation
Imiquimod
Ingenol mebutate
Excision
Mohs surgery

Nodular

Cryosurgery
Electrodesiccation and Curettage
Excision
Radiation therapy
Mohs surgery

Morpheaform, aggressive BCC, or recurrent BCC

Excision
Mohs surgery

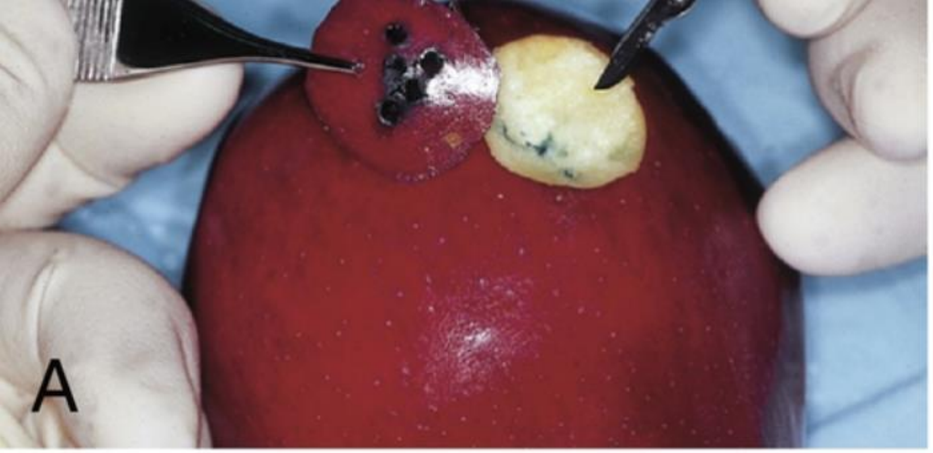
Nonresectable BCC

Cryosurgery
Small-molecule inhibitors of the Hedgehog pathway (vismodegib, sonidegib)
Radiation therapy

Neville J, Welch E, Leffell D. Management of nonmelanoma skin cancer in 2007. Nat Clin Pract Oncol. 2007;4:462–469.

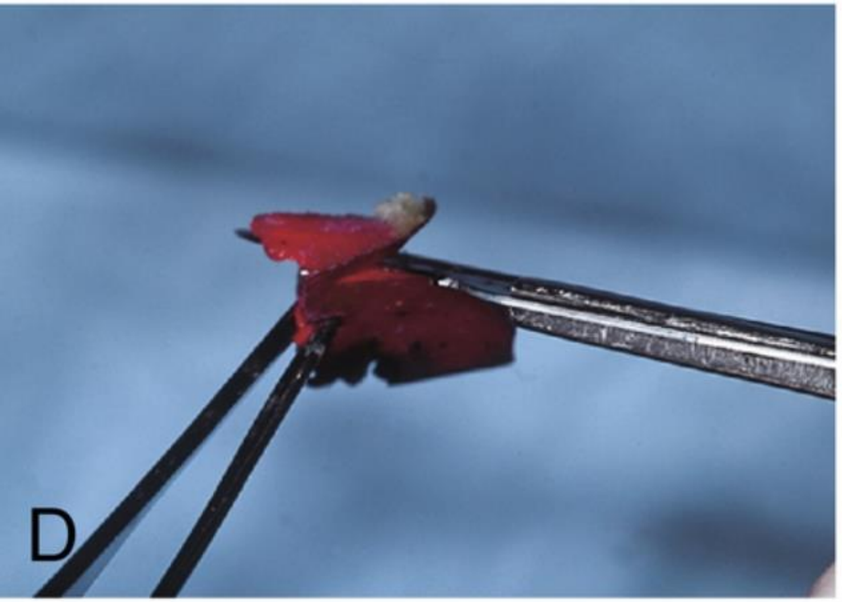
MOHS MICROGRAPHIC SURGERY

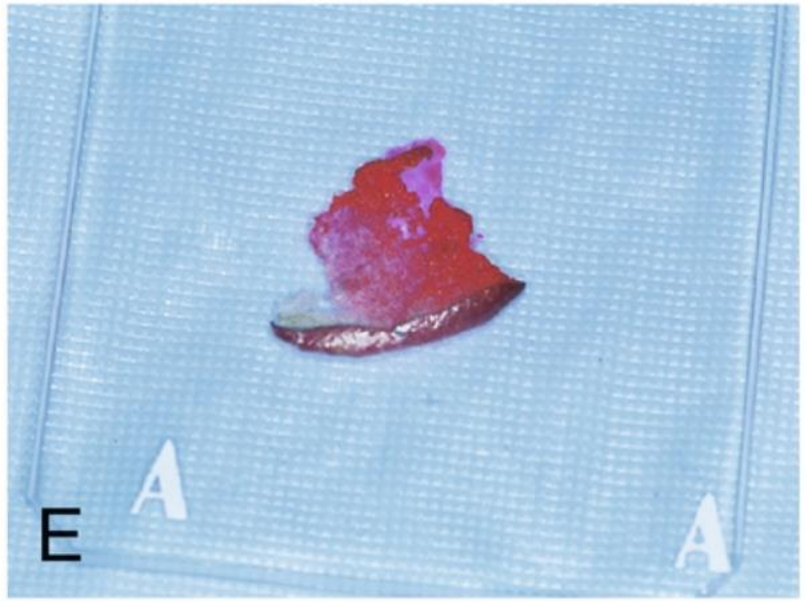
- During Mohs surgery, the dermatologist acts as both the surgeon and the pathologist.
- Tissue sparing technique.
- Mohs surgery is recommended as first-line treatment for the majority of skin cancers that are aggressive and/or arising in high-risk patients and anatomic locations.
- Dr. Frederic Mohs (1910–2002), of the University of Wisconsin, developed a tumor extirpation technique for skin cancer in the late 1930s. Initially, Mohs micrographic surgery involved chemically fixing in vivo cancerous tissue with zinc chloride paste. Using the zinc chloride paste, each stage of Mohs took 24 hours, and the process was quite painful.

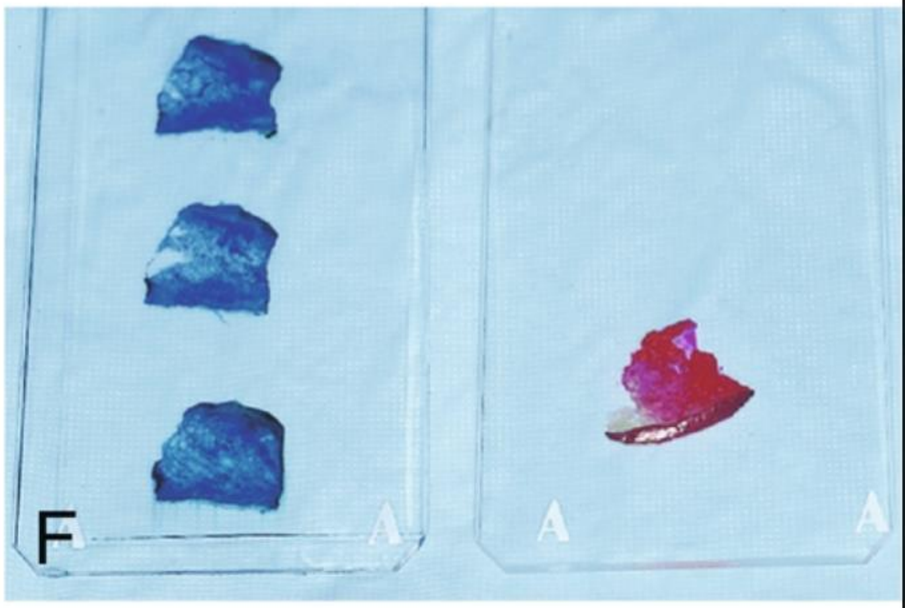

A


B


RED
GREEN
GREEN
RED
C


D


A
A
E


A
A
A
A
F


STAGE II NEGATIVE
GREEN

INDICATIONS FOR MOHS MICROGRAPHIC SURGERY FOR NON-MELANOMA SKIN CANCER

Tumor characteristics[10]

- Recurrent
- High-risk * anatomic location (Area H): "Mask areas" of the face (central face, eyelids, eyebrows, nose, lips, chin, ear, and periauricular skin/sulci, temple), anogenital region, hands, feet, nail units, ankles, and nipples/areola (see Fig. 150.2)
- Aggressive histologic subtype:
  - BCC: morpheaform (sclerosing), micronodular, basosquamous (metatypical), infiltrating
  - SCC: Breslow depth >2 mm/deeply penetrating, poorly differentiated or undifferentiated **, spindle cell, acantholytic, sclerosing, small cell, clear cell, lymphoepithelioma-like, sarcomatoid
- Perineural invasion
- Large size (>2 cm diameter)
- Poorly defined clinical borders (lateral and/or deep)
- Rapid growth
- Positive margin on recent excision

Characteristics of background skin

- Prior exposure to ionizing radiation
- Chronic scar (Marjolin ulcer)

Patient characteristics

- Immunocompromised: solid organ transplant recipient, chronic lymphocytic leukemia, HIV infection, pharmacologic immunosuppression
- Underlying genetic syndrome, e.g. xeroderma pigmentosum, basal cell nevus syndrome, Bazex–Dupré–Christol syndrome
- Patient known to have high-risk tumors without other known health risk factors

PHOTOGRAPH SOURCED FROM "DERMATOLOGY" JEAN L. BOLOGNIA, MD 2003

FIVE WARNING SIGNS OF BASAL CELL CARCINOMA

- Look for “persistent pimple”, a solitary acne cyst for 8 weeks on heavy sun exposed areas or older patients, likely not acne.
- Open sore: Bleeds, crusts, heals, and repeats.
- Small reddish patch. Nonhealing dermatitis.
- Shiny translucent pump or nodule.
- Pink growth, may look like nevus. “If it’s pink, think.”

Squamous Cell Carcinoma

Cutaneous Squamous Cell Carcinoma

ETIOLOGY

- Chronic cumulative ultraviolet exposure
- Chronic radiodermatitis
- Old thermal burn scars
- Topical carcinogens
- Chronic inflammation
- Chronic HPV infection
- Inorganic arsenic ingestion

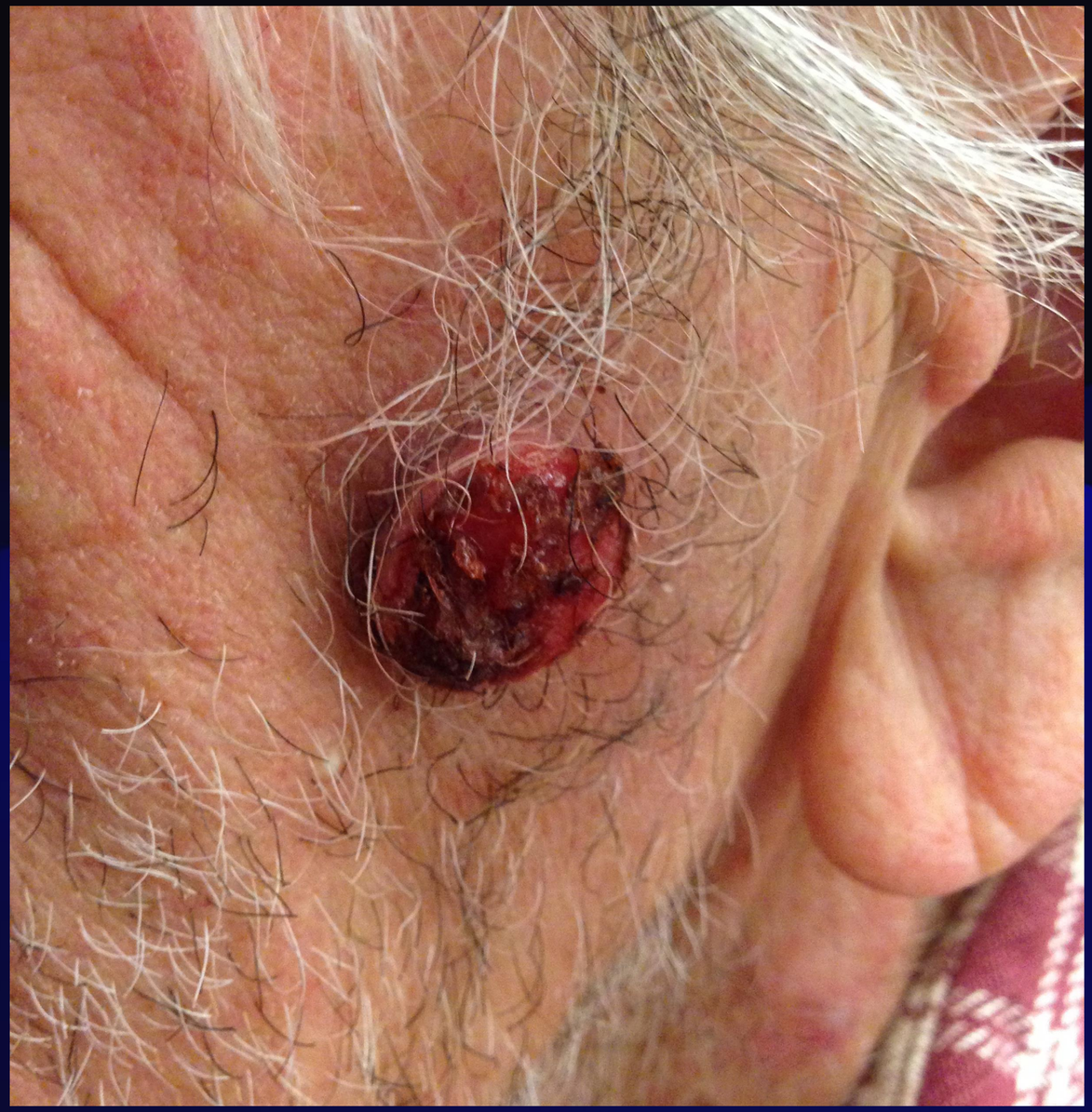
Cutaneous Squamous Cell Carcinoma

High Risk Features associated with increased recurrence, metastasis, and death

TUMOR FACTORS	HOST FACTORS
• Location (ear, lip, anogenital, scars) • Diameter >2cm • Depth >4mm or beyond subcutaneous fat • Perineural invasion • Poorly differentiated tumor • Infiltrative/desmoplastic growth pattern • History of local recurrence	• Immunosuppression Organ transplant recipients (heart/lung>kidney>liver) Chronic lymphocytic leukemia/ lymphoma AIDS • Other: arsenic, psoralen ultraviolet-A (PUVA), radiation exposure, bullous diseases

Keratoacanthoma variant of SCC

- Considered by some to be a variant of SCC and by others to represent benign tumors (i.e. pseudomalignancy).
- Rapidly enlarging papule evolves into a sharply circumscribed, crateriform nodule with a keratotic core over a period of a few weeks.
- Some regress slowly over months to leave an atrophic scar.
- Head and neck or in sun-exposed areas of the extremities, with or without symptoms of pain or tenderness.



PHOTOGRAPH SOURCED FROM "DERMATOLOGY" JEAN L. BOLOGNIA, MD 2018

Squamous Cell Carcinoma In Situ

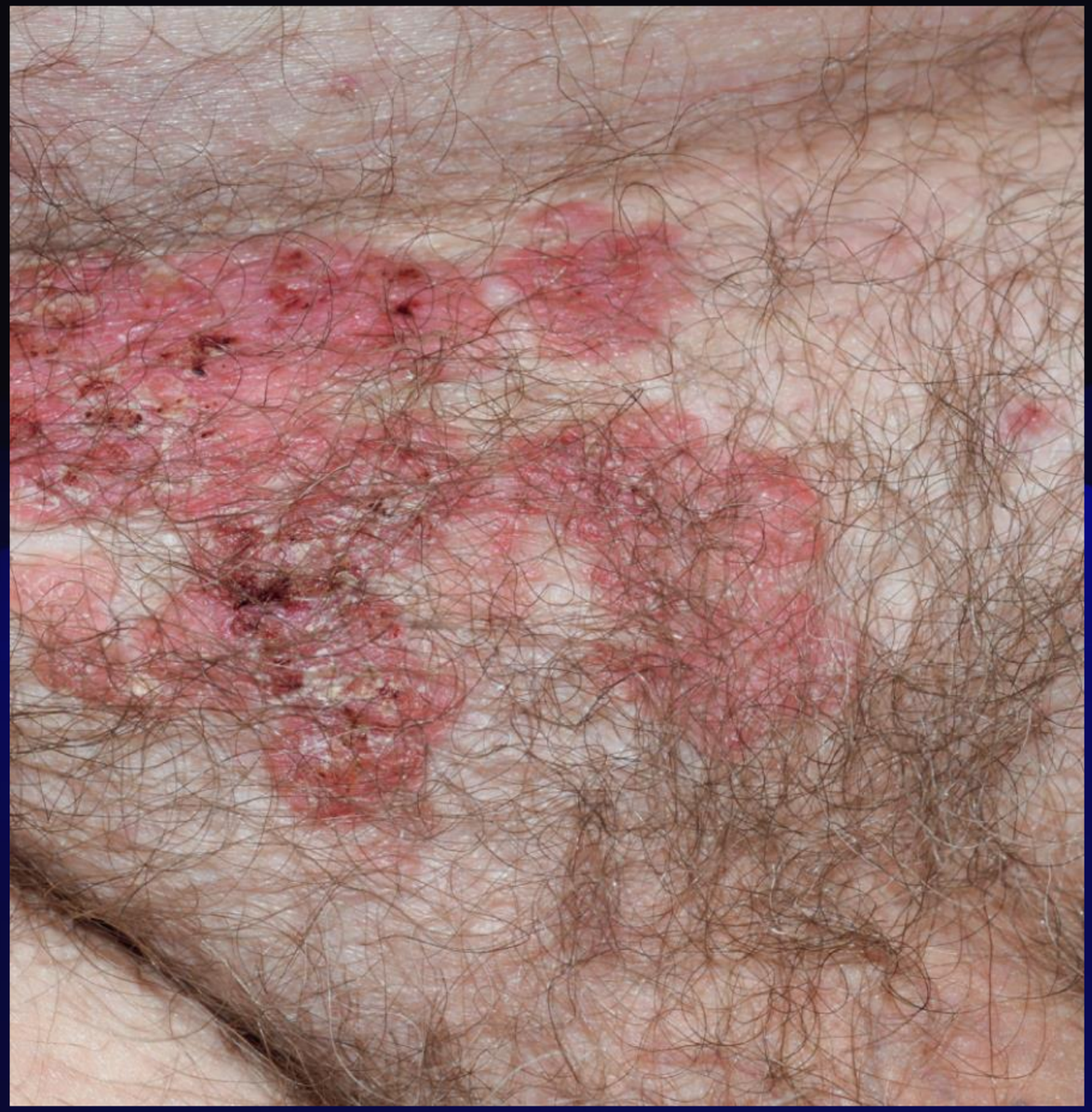
Commonly called Bowens disease.

Erythematous scaly patch or slightly elevated plaque that often arises within sun-exposed skin of an elderly individual.

Can develop in younger individuals with significant photodamage or in sun-protected sites.

Bowen disease may arise de novo or from a pre-existing AK.

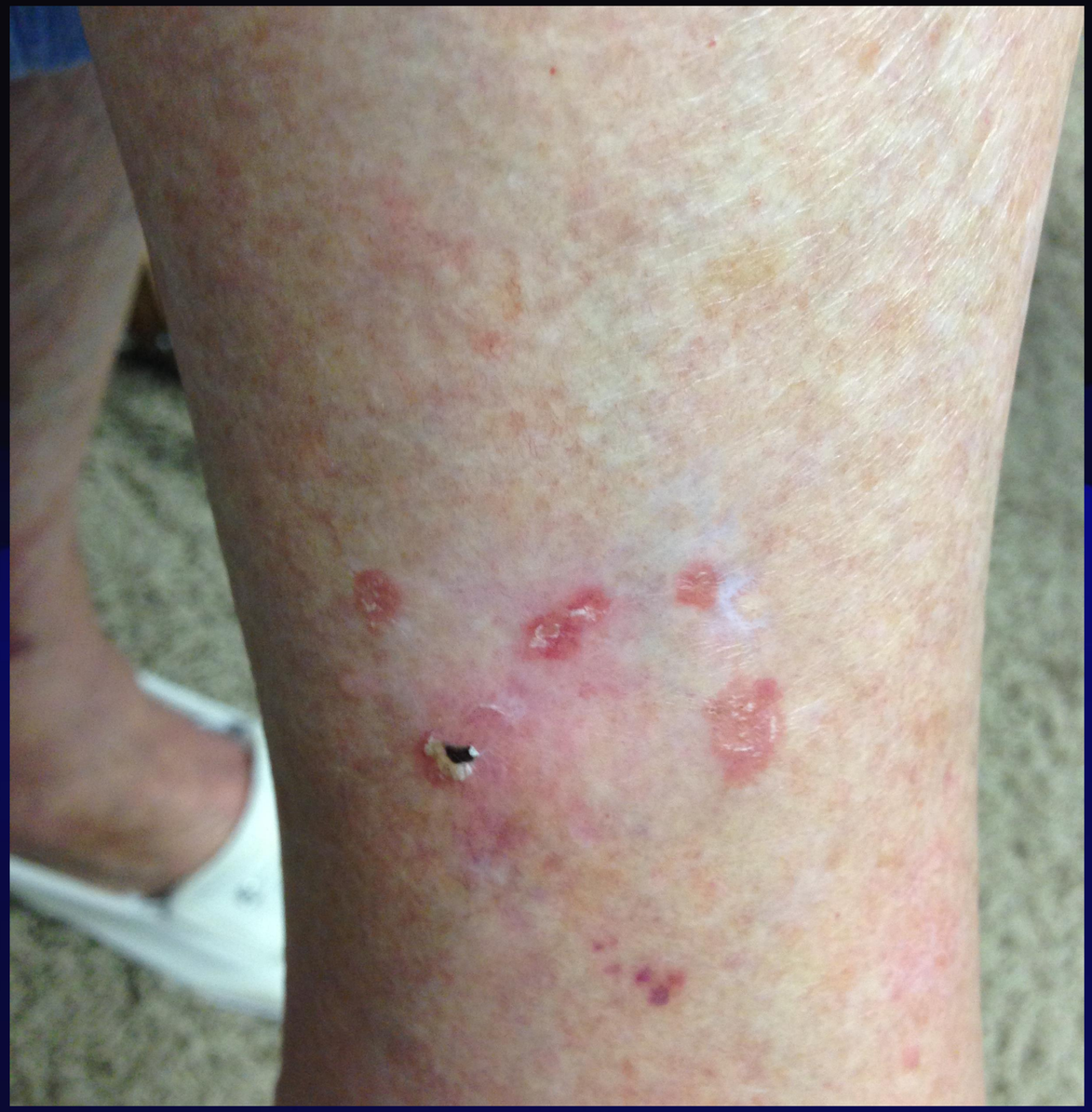
The head and neck, followed by the extremities and trunk, are the most common sites.



PHOTOGRAPH SOURCED FROM "DERMATOLOGY" JEAN L. BOLOGNIA, MD 2018

Squamous Cell Carcinoma In Situ

- Residual Cancer following topical 5-Fluorouracil



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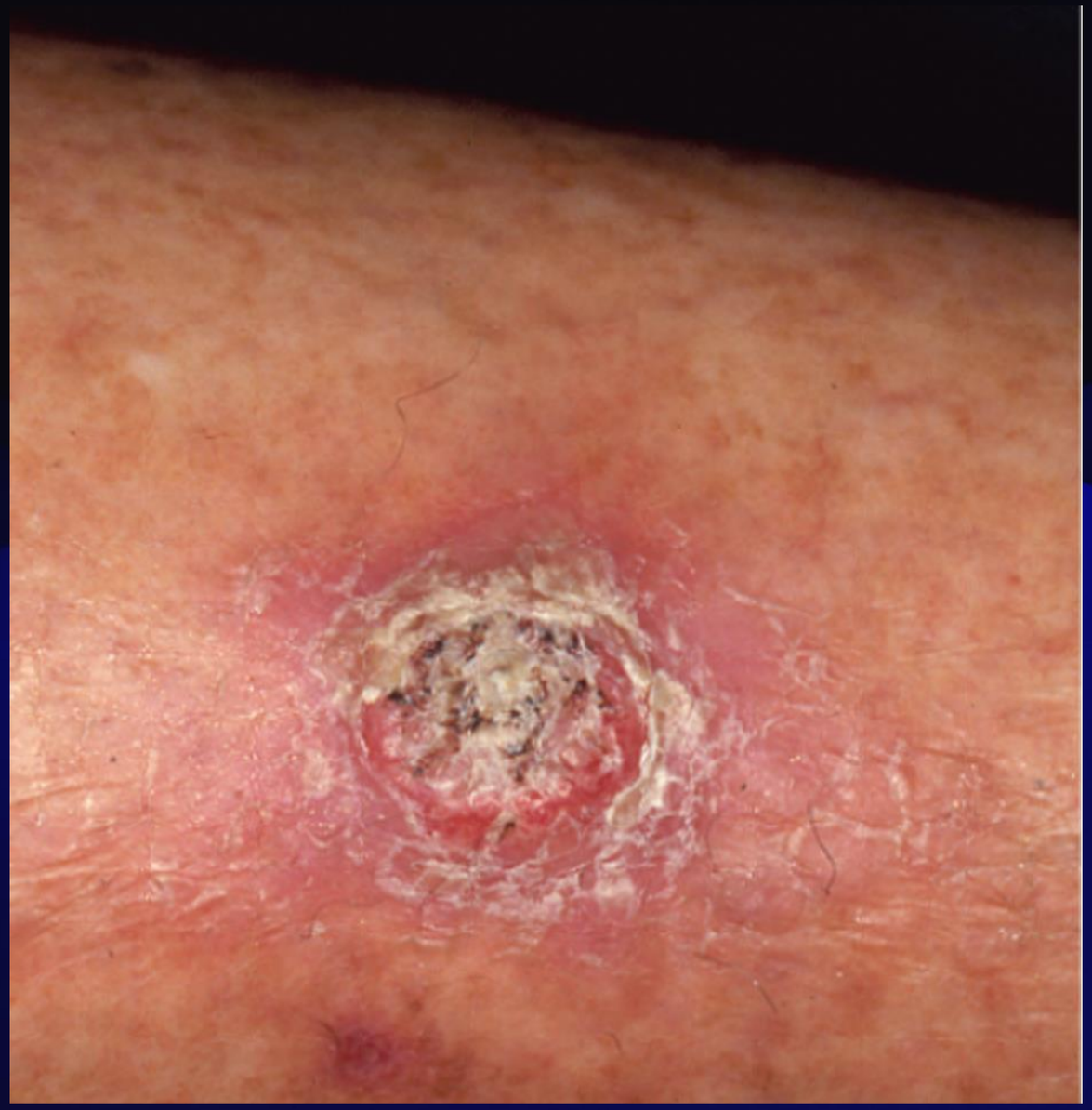
Invasive Cutaneous Squamous Cell Carcinoma

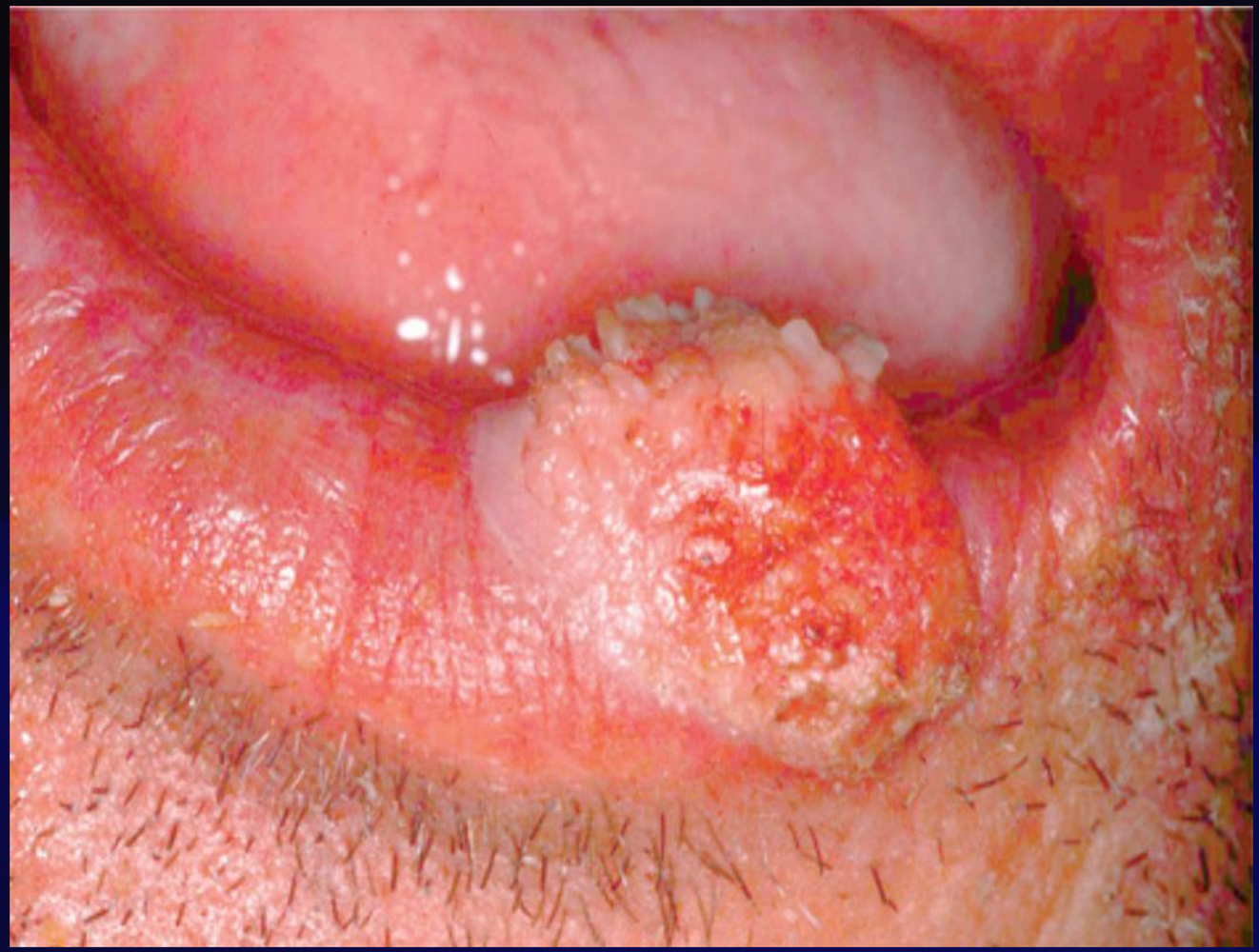
- Arises within a background of sun-damaged skin.
- Most commonly on the bald scalp, face, neck, extensor forearms, dorsal hands, and shins.
- Papulonodular, but can be plaque-like, papillomatous, or exophytic.
- Scale varies, with some lesions becoming quite hyperkeratotic; other secondary changes include crusting, erosions, and ulcerations.



PHOTOGRAPH SOURCED FROM “DERMATOLOGY” JEAN L. BOLOGNIA, MD 2018

Invasive Squamous Cell Carcinoma

- Can have warty appearing presentation.
- Vermillion border represents a higher risk location for metastasis.



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TREATMENT

Squamous Cell Carcinoma In Situ (Bowen's Disease)

—

Electrodesiccation and curettage
Fluorouracil, topical
Imiquimod
Cryosurgery
Laser
Excision
Photodynamic therapy
Ingenol mebutate

(SCC) Low Risk

Electrodesiccation and curettage
Cryosurgery
Excision
Mohs surgery

SCC High risk

Excision
Mohs surgery
Radiation therapy (primary or adjuvant)
Chemotherapy, adjuvant
Immunotherapy, Anti-PD1 (cemiplimab, pembrolizumab), primary or adjuvant

Nonresectable SCC

Radiation
Chemotherapy
Immunotherapy (anti-PD1)

Neville J, Welch E, Leffell D. Management of nonmelanoma skin cancer in 2007. Nat Clin Pract Oncol. 2007;4:462–469.

TREATMENT

FIVE-YEAR CURE RATES FOR PRIMARY BCC AND SCC		
Treatment modality	**5-year cure rate**	
	BCC (%)	**SCC (%)**
Surgical excision	90	92
Electrodesiccation & curettage	92	96
Radiation	91	90
Cryotherapy	93	N/A
All non-Mohs modalities	91	92
Mohs micrographic surgery	99	97

SOURCED FROM "DERMATOLOGY" JEAN L. BOLOGNIA, MD 2018

Malignant Melanoma

BY THE NUMBERS..

1 in 52 Americans will develop melanoma

25% of cases will be diagnosed before the age of 40

5th most common cancer in men

6th most common cancer in women

Most common cancer young women 25-29

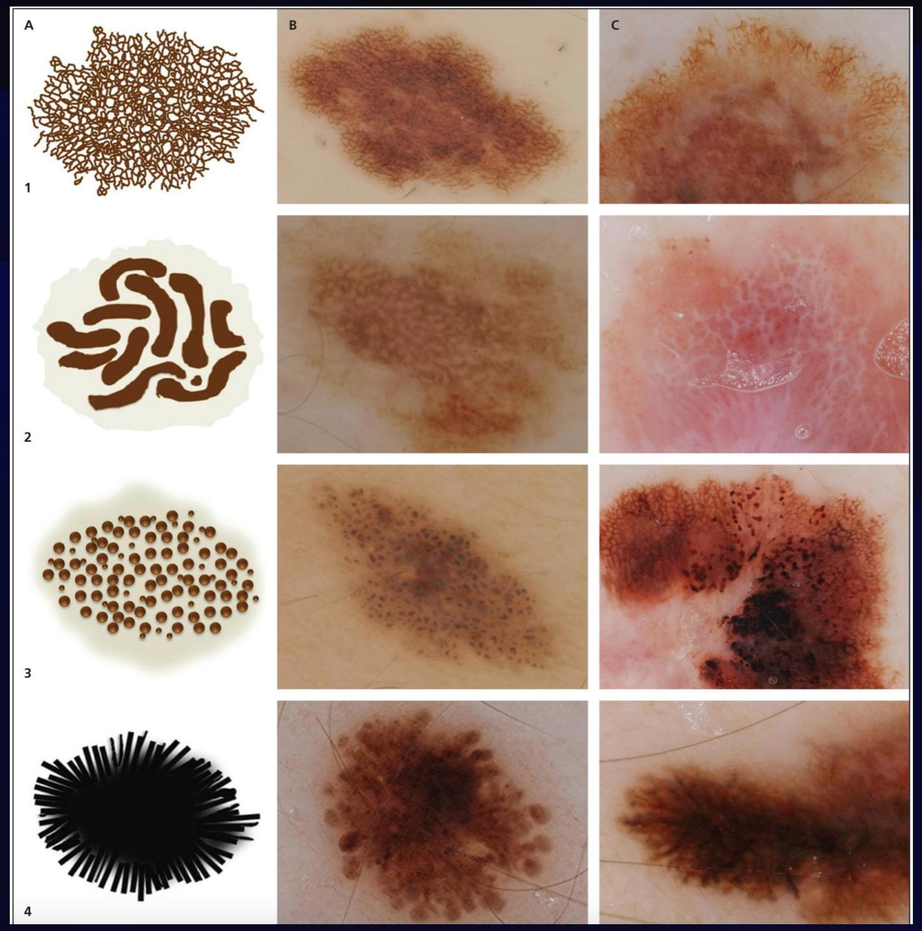
Most common cancer death in women 25-30

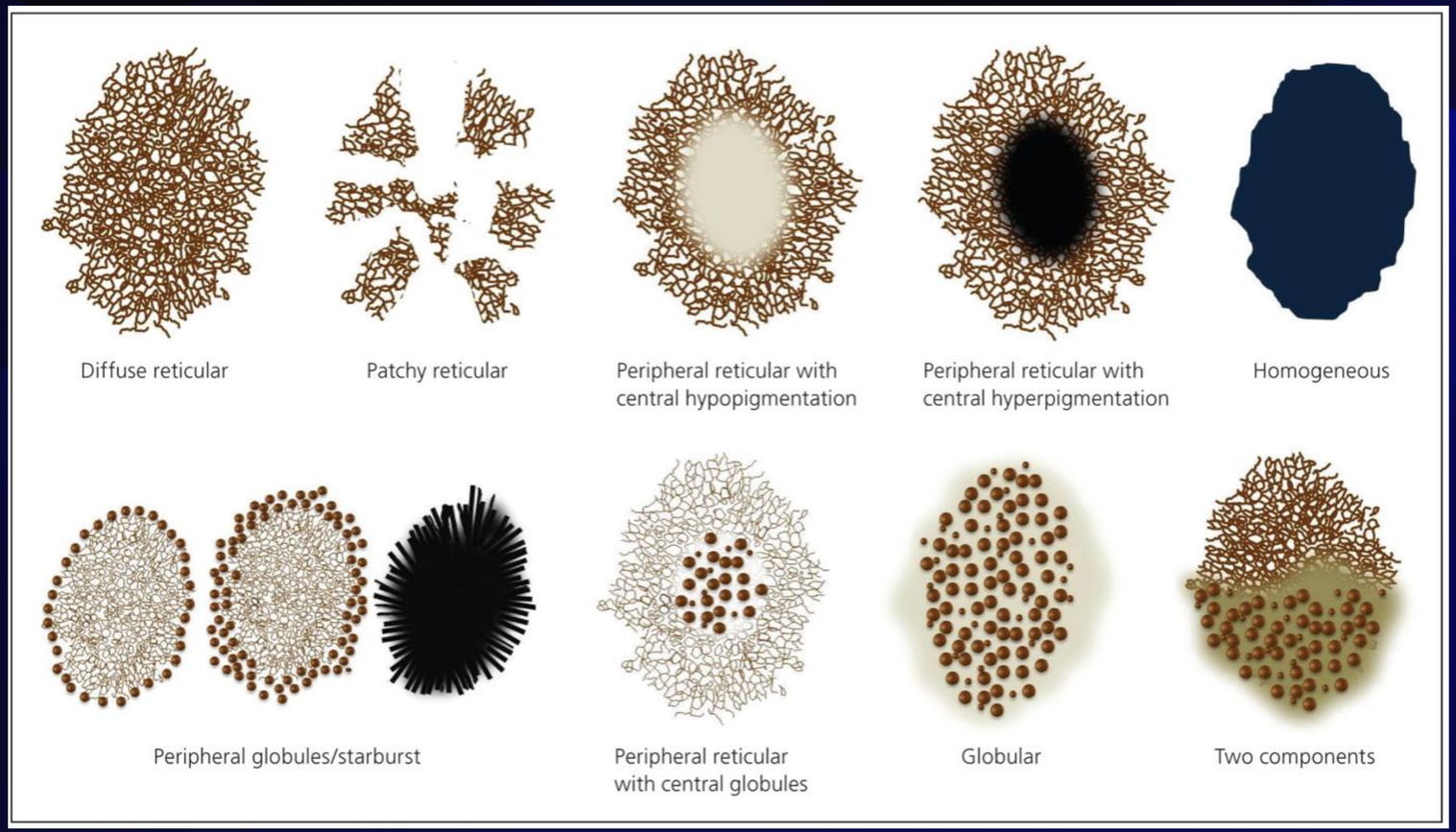
ABCDE’s of Moles

NORMAL		CANCEROUS
	**A: ASYMMETRY** If you draw a line through the centre of the lesion, the two halves of a melanoma won't match.	
	**B: BORDER IRREGULARITY** The border of a melanoma is irregular, typically geographic: peninsulas, bays, islands.	
	**C: COLOUR VARIEGATION** Healthy moles are a uniform colour. A variety of different colours in the same lesion is suspicious.	
	**D: DIAMETER > 6 MM** Greater than 6 mm is suspious, although melanomas can be smaller.	
	**E: EVOLVING** Recent change in size, shape or colour, or bleeding or scabbing are suspicious.	

Dermoscopy

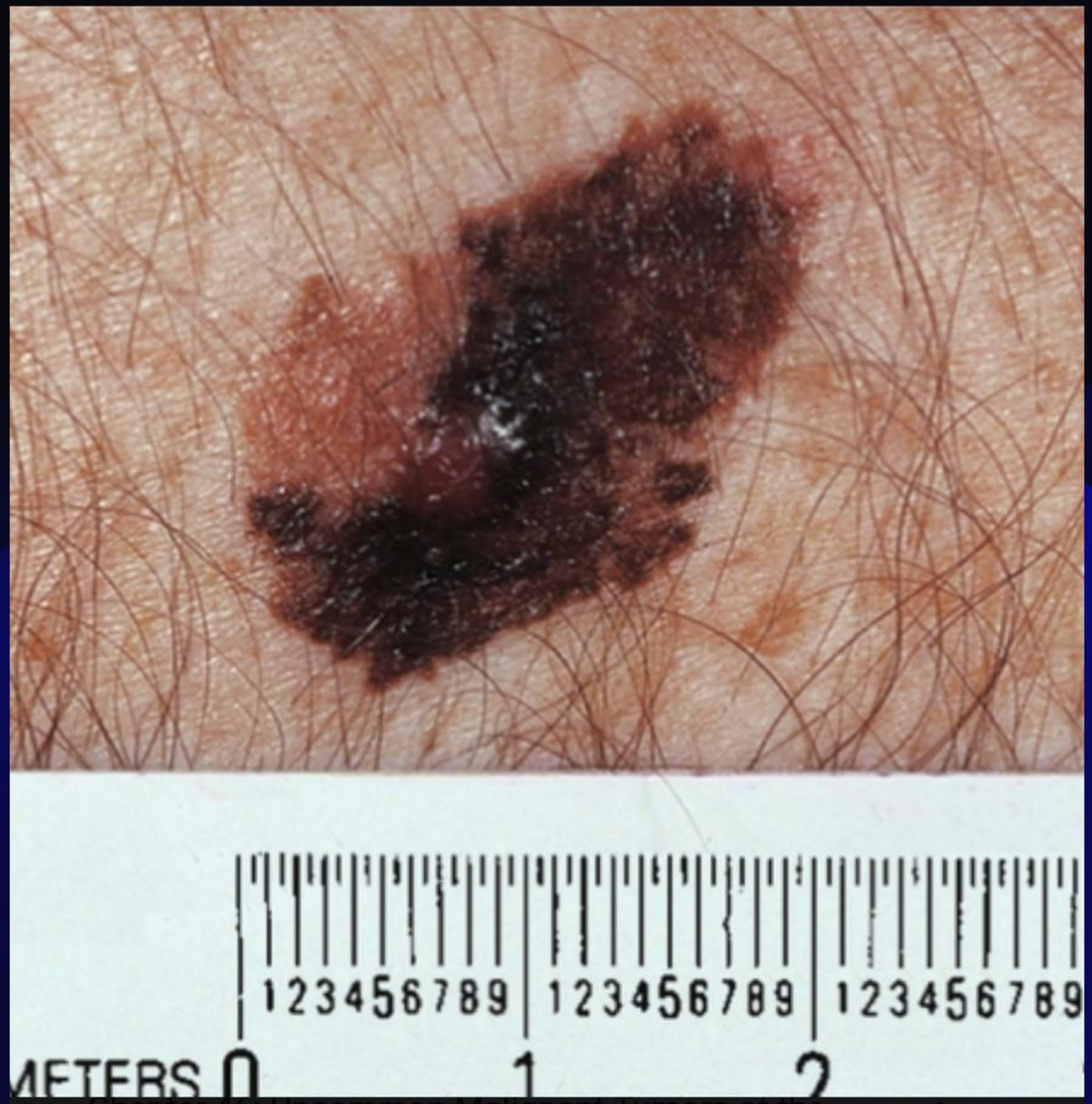
Epiluminescence microscopy, incident light microscopy, and skin-surface microscopy are synonyms. Utilizing a handheld device called a dermatoscope.





Superficial Spreading Melanoma

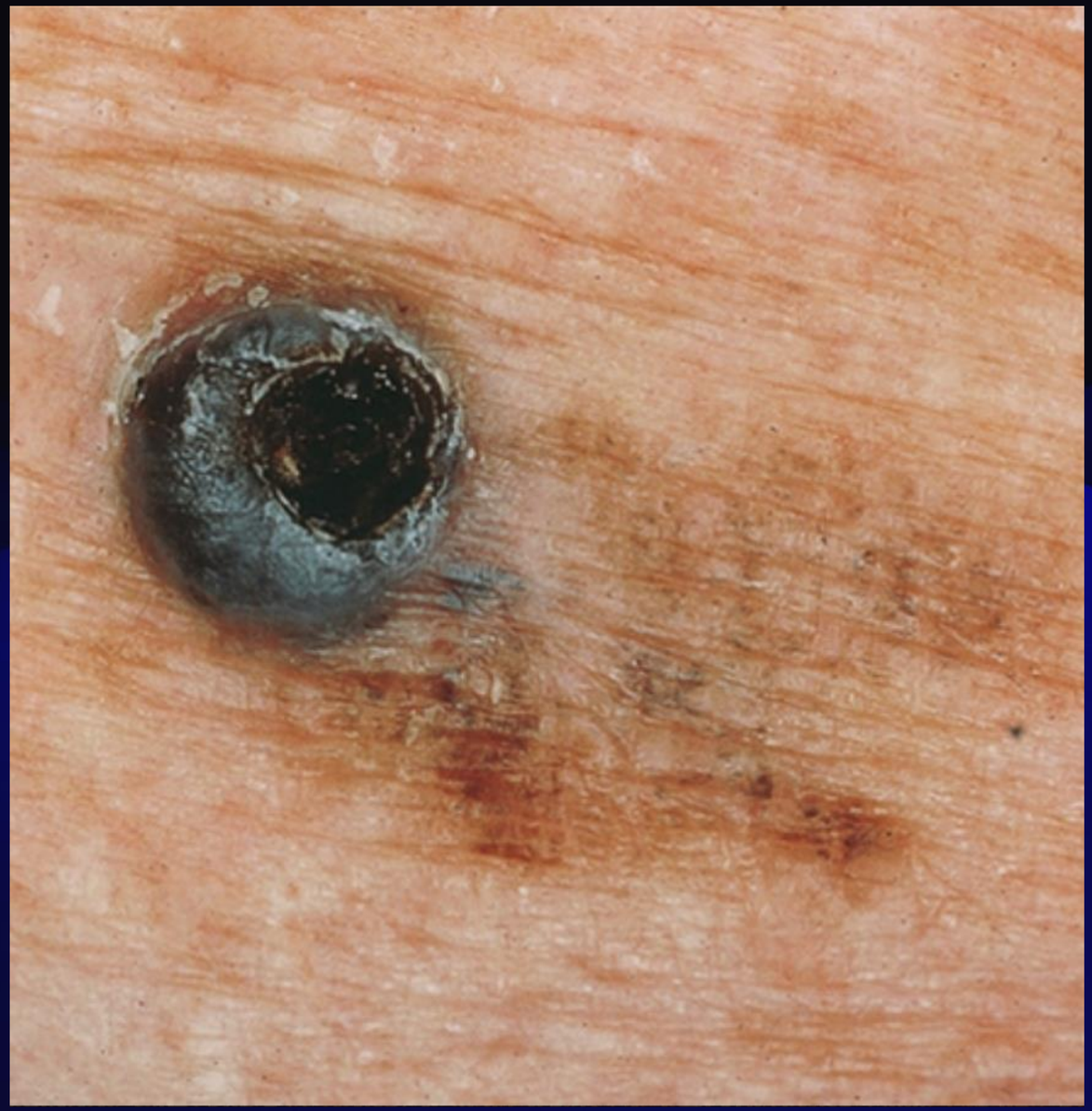
- 70% of melanomas
- Typically >6mm
- Trunk in men and women
- Legs in Women
- Irregular asymmetric borders
- Multiple colors (black, red, blue, white)
- Begins as flat or elevated brown lesion



PHOTOGRAPH SOURCED FROM “DERMATOLOGY” JEAN L. BOLOGNIA, MD 2003

Nodular Melanoma

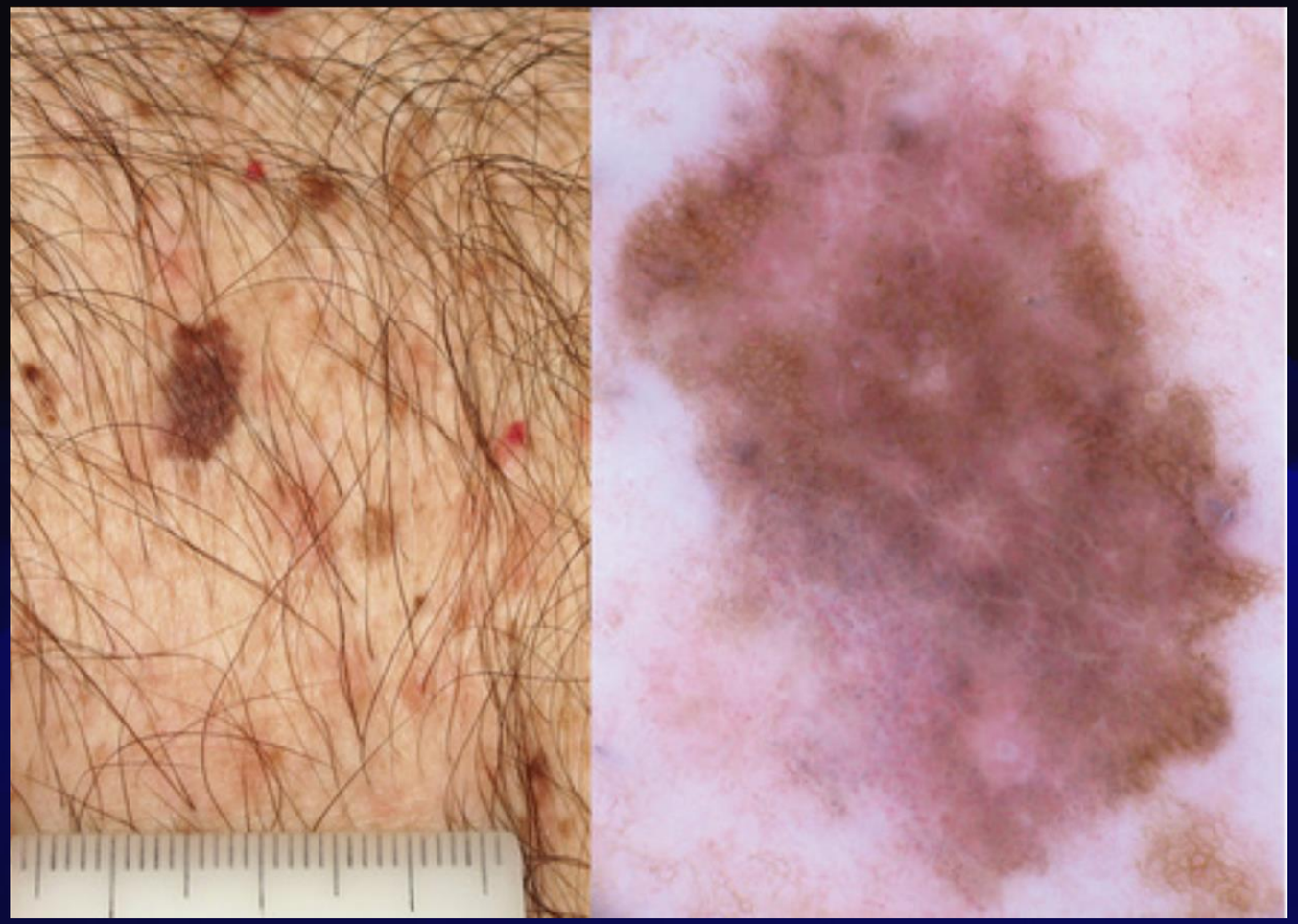
- 10-20% of melanomas
- Trunk and Legs
- Rapid growth: weeks, months
- Brown to black papule or nodule
- Ulcerates and bleeds



PHOTOGRAPH SOURCED FROM “DERMATOLOGY” JEAN L. BOLOGNIA, MD 2003

Lentigo maligna melanoma

- 4-15% of melanomas
- Head, neck and arms
- Average age 65
- Slow growth, can be years
- Brown to black macular pigmentation
- Raised blue-black nodules
- Arises in precursor lentigo maligna

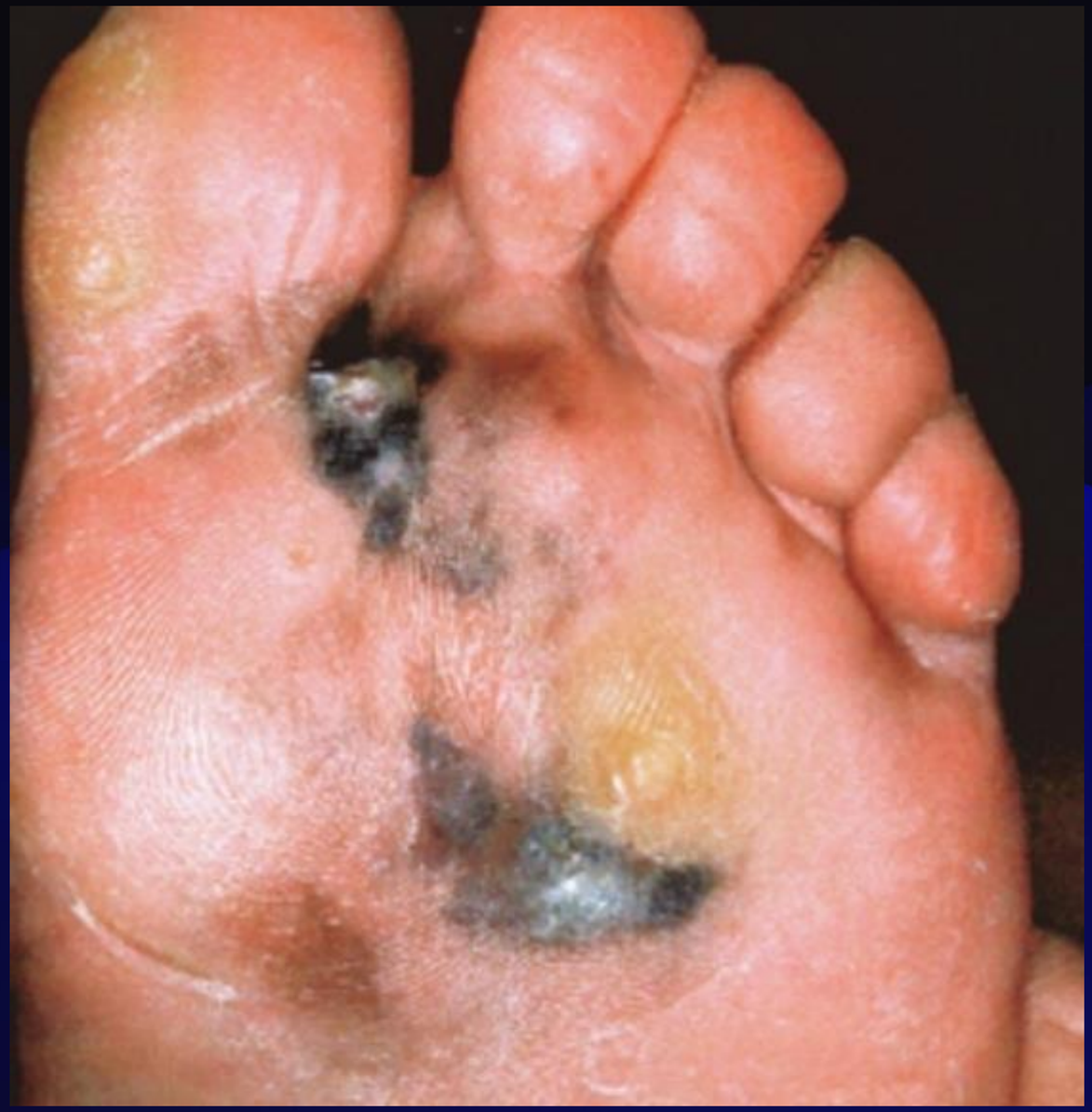


A Melanoma in situ typified dermoscopically by asymmetry of color and structure, atypical network, and blue–white structures intermingled with dotted vessels

PHOTOGRAPH SOURCED FROM "DERMATOLOGY" JEAN L. BOLOGNIA, MD 2018

Acral lentiginous melanoma

- 2-8% of melanomas in whites
- 30-75% of melanomas in African Americans, asians and hispanics
- Palms and soles
- Under nail plate: Hutchinson sign (pigment spreads to proximal and lateral nail folds)



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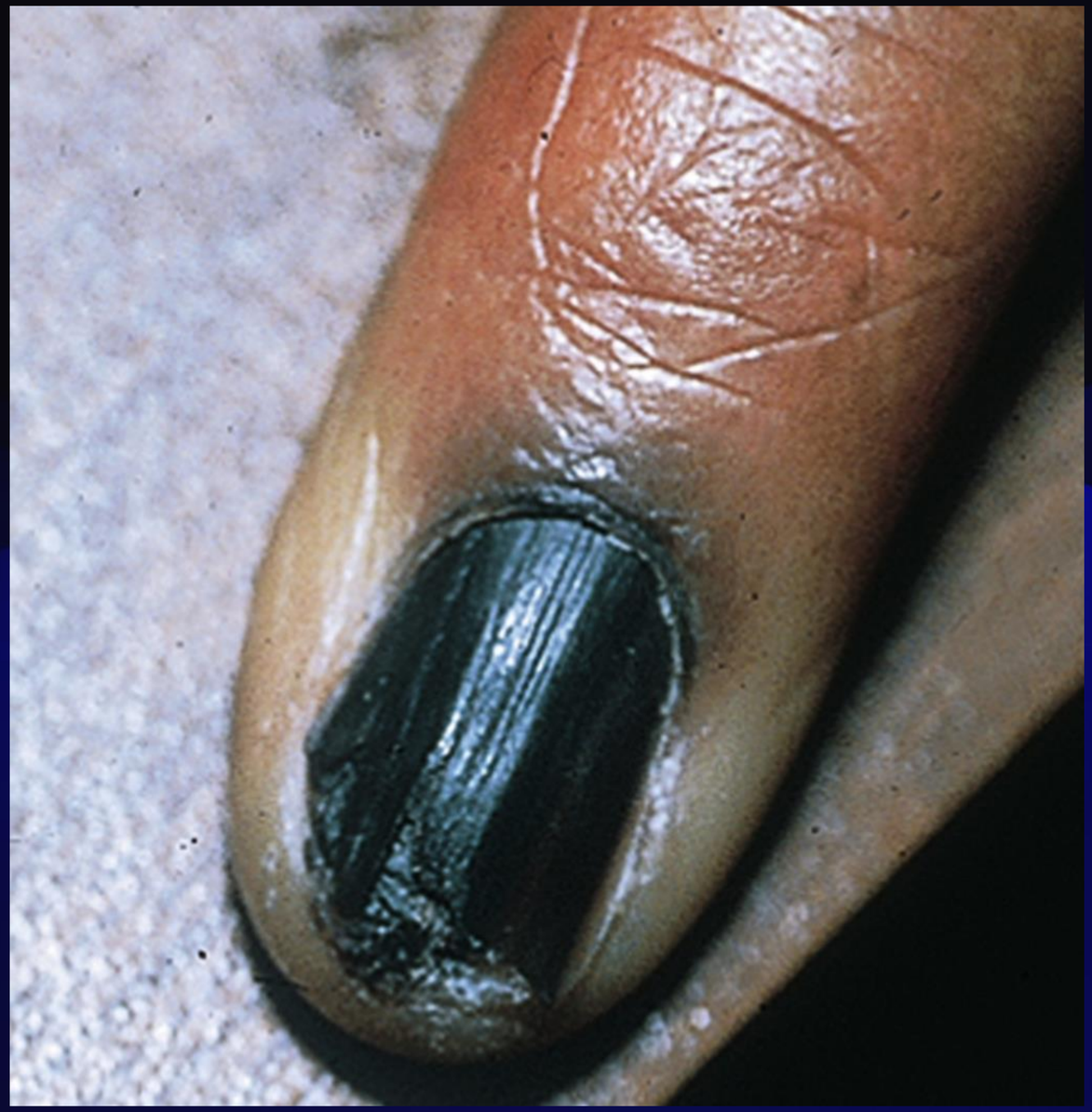
Acral lentiginous melanoma

- Uncommon type of cutaneous melanoma.
- Diagnosed most frequently in the seventh decade of life.

- It typically occurs on the palms and soles or in and around the nail apparatus.

- ALM typically presents as an asymmetric, brown to black macule with color variation and irregular borders.

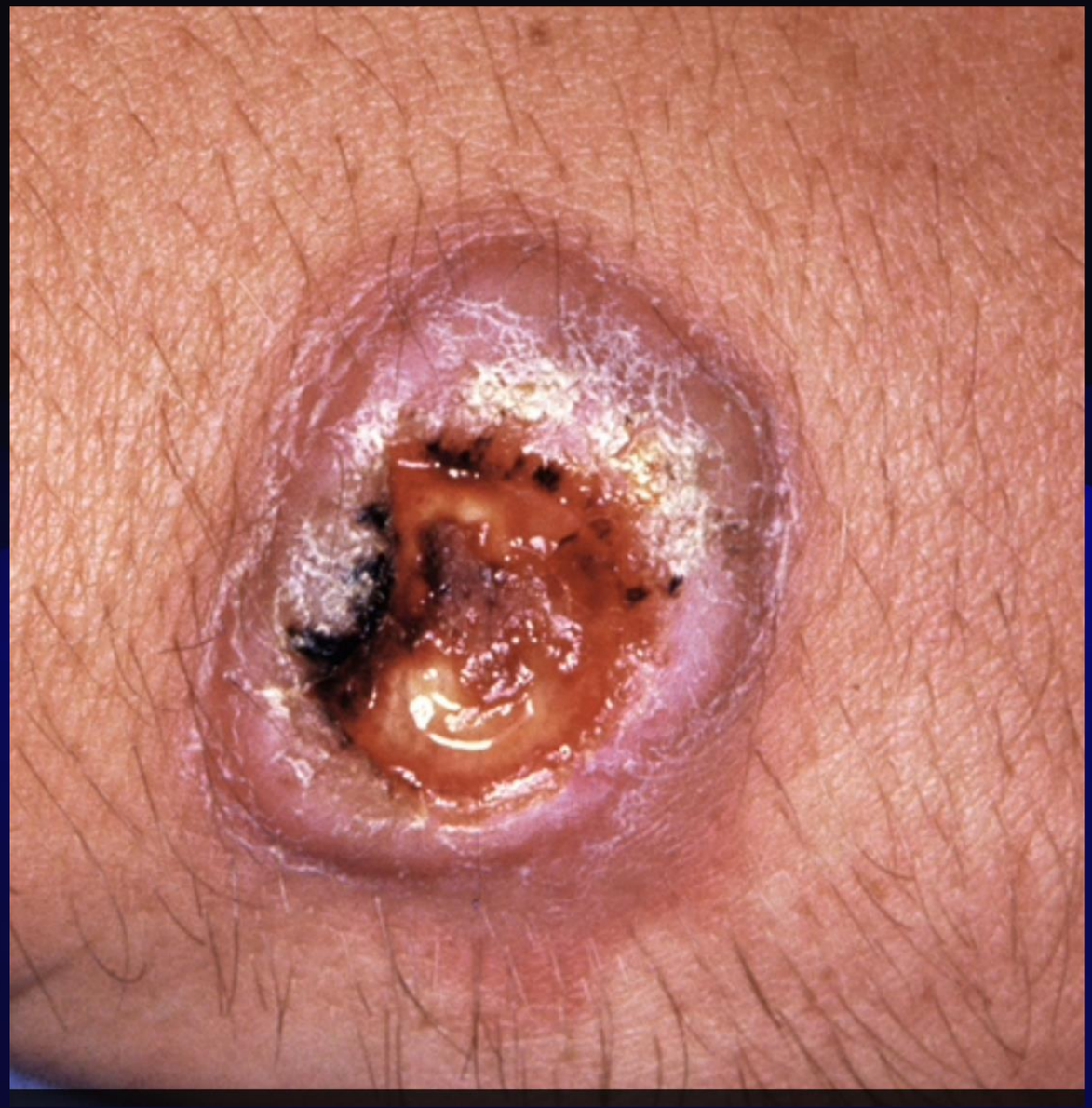
- Often diagnosed at an advanced stage.



PHOTOGRAPH SOURCED FROM “DERMATOLOGY” JEAN L. BOLOGNIA, MD 2003

Amelanotic Melanoma

- Melanomas lacking clinically evident pigment are termed “amelanotic”.
- Especially challenging and may be mistaken for warts or SCC.
- Do not differ from pigmented melanomas in terms of prognosis or therapy.



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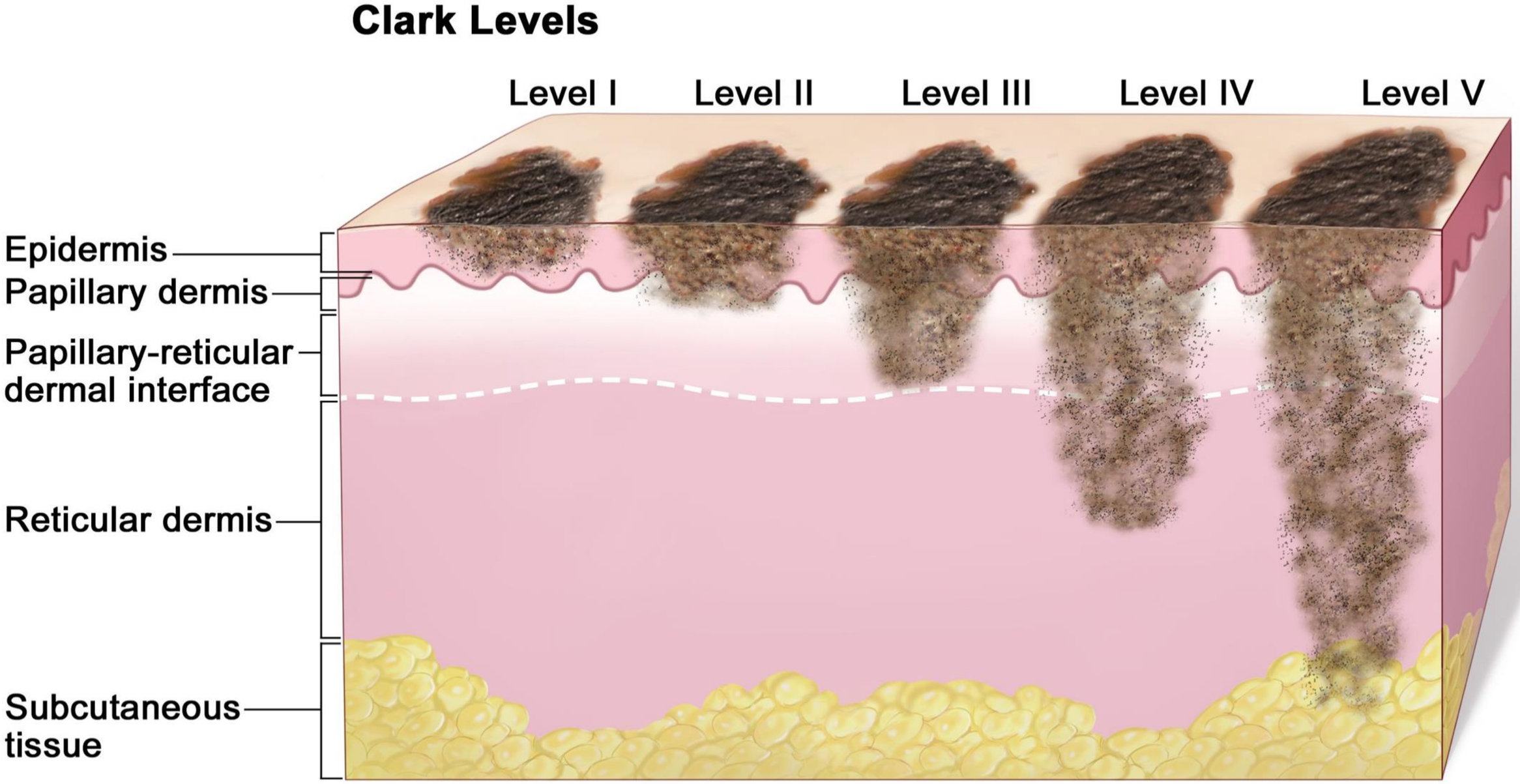

Clark Levels
Level I
Level II
Level III
Level IV
Level V
Epidermis
Papillary dermis
Papillary-reticular dermal interface
Reticular dermis
Subcutaneous tissue

DecisionDx-Melanoma, gene expression profile (GEP) test

DecisionDX for melanoma prognosis was designed to identify the risk of recurrence or metastasis in patients with Stage I, II, and III melanoma based on the biologic profile of 31 genes within their tumor tissue.

CASTLE BIOSCIENCES

DecisionDx MELANOMA

Castle ID: Page 1 of 2

FINAL REPORT

Patient:		Specimen ID:	
Sex:		Collected:	
DOB:		Received:	
Client:		Reported:	
Clinician:		Tumor Site:	**Back of neck, right side**
Breslow Thickness (mm):	**0.5 mm**	Binned Tumor Location:	**Head & Neck**
Age (years):	**68**	Nodal Status:	**Unknown**
Ulceration:	**Not present**	Mitotic Rate (/mm2):	**0/mm**

DecisionDx-Melanoma Result

Class 1A 31-GEP Score = 0.23	Class 1A is associated with the lowest risk of recurrence/metastasis within 5 years Class 1A score range: 0-0.41

The DecisionDx®-Melanoma test reports results by molecular class (1A, 1B, 2A or 2B) and the associated 31-gene expression profile (31-GEP) score that ranges from 0.0 to 1.0. This class result informs risk of recurrence and likelihood of sentinel lymph node (SLN) positivity.

This patient's i31-GEP Personalized Risk of Recurrence Estimates (5-year, AJCC Stages I or II):

	Melanoma-Specific Survival (MSS)	Distant Metastasis-Free Survival (DMFS)	Recurrence-Free Survival (RFS)
Clinically or pathologically node-negative (clinical stage I or II)	99.1%	96.4%	94.4%

The DecisionDx-Melanoma integrated 31-GEP Risk of Recurrence (i31-ROR) test result was developed using artificial intelligence techniques. The validated i31-ROR algorithm integrates the 31-GEP score with the patient's specific clinicopathologic factors of Breslow thickness, ulceration, mitotic rate, SLN status, age and binned tumor location. Data shown above is based on a population of patients having completed a staging workup.

See page 2 for i31-GEP personalized risk of recurrence estimates for patients with clinically or pathologically node-positive melanoma (stage III) and information pertaining to likelihood of SLN positivity.

DecisionDx-Melanoma Risk of Recurrence Estimates (5-year) by 31-GEP Class and AJCC Stage:

AJCC Stage Information		DecisionDx-Melanoma Class Result by Stage			
Clinical Stage	MSS by AJCC Stage	31-GEP Class Result	Melanoma-Specific Survival (MSS)	Distant Metastasis-Free Survival (DMFS)	Recurrence-Free Survival (RFS)
Stage I	98%	1A 1B/2A 2B	>99% 98% 91%	98% 90% 86%	98% 88% 76%
Stage II	90%	1A 1B/2A 2B	98% 91% 85%	89% 82% 60%	73% 71% 44%
Stage III	77%	1A 1B/2A 2B	94% 85% 62%	68% 68% 42%	58% 53% 33%

Greenhaw et al. JAAD 2020

PHOTOGRAPH SOURCED FROM "DERMATOLOGY" JEAN L. BOLOGNIA, MD 2003

Castle Biosciences, CLIA# 03D2096504 5737 N. 7th Street, Suite 160, Phoenix, AZ 85014
Tel: 866-788-9007 Fax: 866-329-2224

TREATMENT

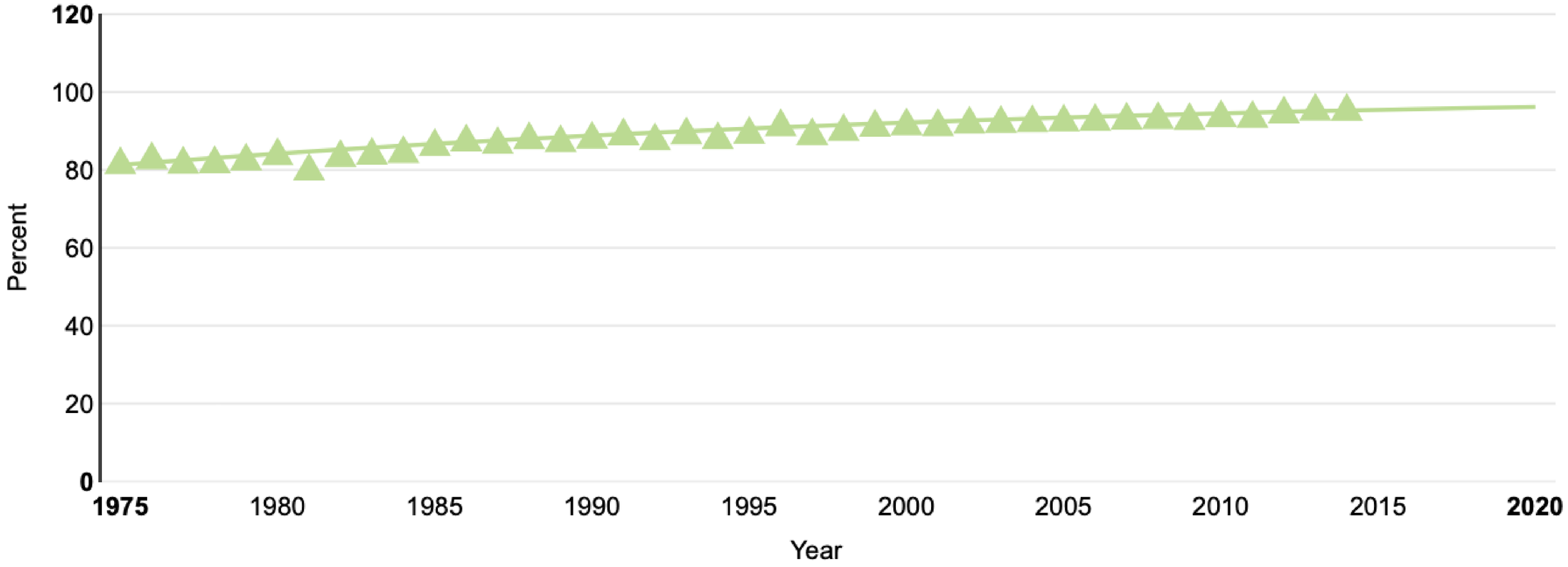
SURGICAL TREATMENT OF PRIMARY CUTANEOUS MELANOMA		
Tumor thickness	**Excision margins (cm)**	**Comments**
In situ	0.5	Lentigo maligna of the face may be excised with 1 cm margins (especially when lesions are >1.5–2 cm in diameter) or treated by Mohs micrographic surgery or radiotherapy; postoperative topical imiquimod is often used
≤1 mm	1.0	Mohs micrographic surgery may be considered for facial melanomas
1.01–2 mm	1.0–2.0	
>2 mm	2.0	

TREATMENT

Major systemic treatments for metastatic melanoma – targeted therapies and checkpoint inhibitors. MAPK, mitogen-activated protein kinase.

TARGETED THERAPIES AND CHECKPOINT INHIBITORS		
Targeting the MAPK pathway (see Fig. 113.2)		**FDA approved as of July 2017**
BRAF inhibitors (selective *)	Dab*raf*enib	√
	Enco*raf*enib	
	Vemu*raf*enib	√
MEK inhibitors	Bini*met*inib	
	Cobi*met*inib	√
	Tra*met*inib	√
Immune checkpoint inhibitors (see Fig. 128.9)		
Anti-CTLA-4 antibody	Ipilimumab	√
	Tremelimumab	
Anti-PD-1 antibody	Nivolumab	√
	Pembrolizumab	√
	Pidilizumab	
Anti-PD-L1 antibodies	Atezolizumab	Approved for non-small cell lung cancer and urothelial carcinoma
	Avelumab	Approved for metastatic Merkel cell carcinoma
	Durvalumab	Approved for bladder cancer (PD-L1-positive)

SEER 8 5-YEAR RELATIVE SURVIVAL PERCENT FROM 1975–2014, ALL RACES, BOTH SEXES.



The 2018 Nobel Prize in Physiology or Medicine has been awarded jointly to two cancer immunotherapy researchers, James P. Allison, PhD, of The University of Texas MD Anderson Cancer Center, and Dr. Tasuku Honjo of Kyoto University in Japan. Immunotherapy is now considered the fifth pillar of cancer therapy: surgery, radiation, chemotherapy, precision medicine, and immunotherapy.

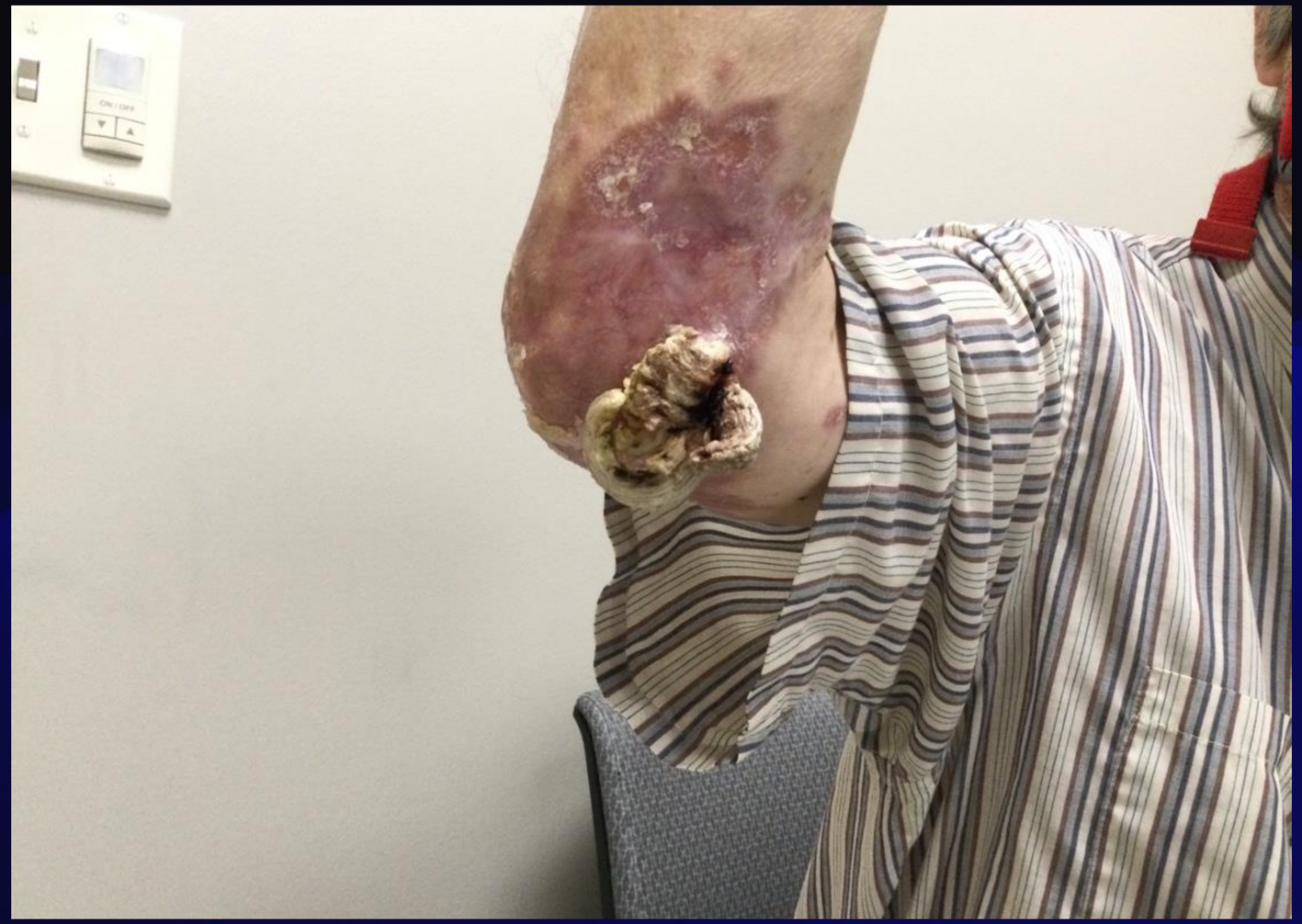
TOP TAKEAWAYS FOR MELANOMA

- Always biopsy pigmented lesions that look suspicious .
- When in doubt, refer out.
- Early detection saves lives.
- ABCDE of Melanoma and ugly duckling sign
- Personal or family history important for risk stratification

Uncommon Malignancies

Verrucous Carcinoma

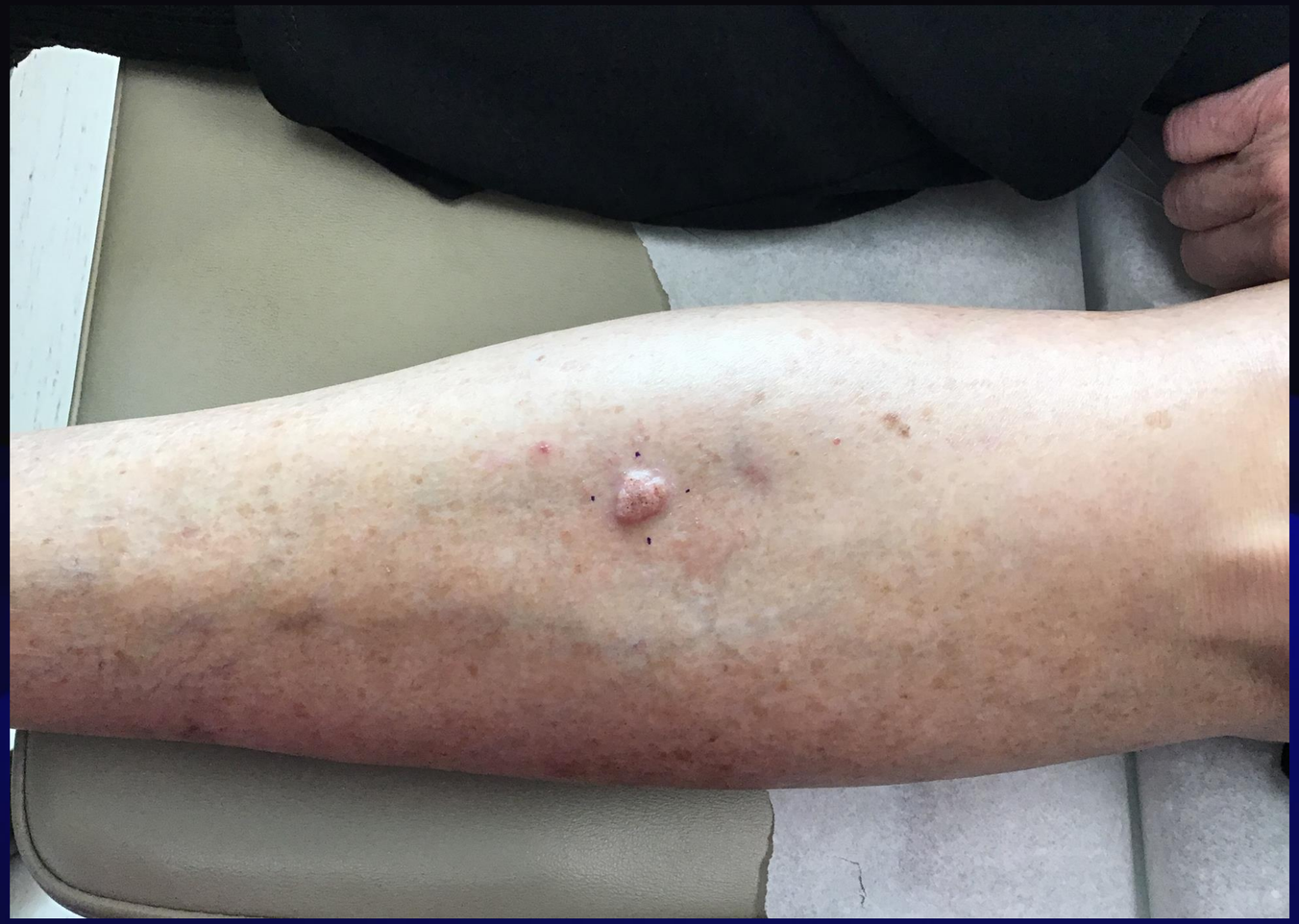
- Uncommon low grade SCC
- Associated with HPV 16,18; less common 6, 11
- Low metastasis potential
- Slow growth, mean time to presentation 13 years!
- Look for a persistent wart, pressure, exophytic growth and keratin filled sinuses.



PHOTOGRAPH SOURCED FROM PERSONAL PATIENT

Verrucous Carcinoma

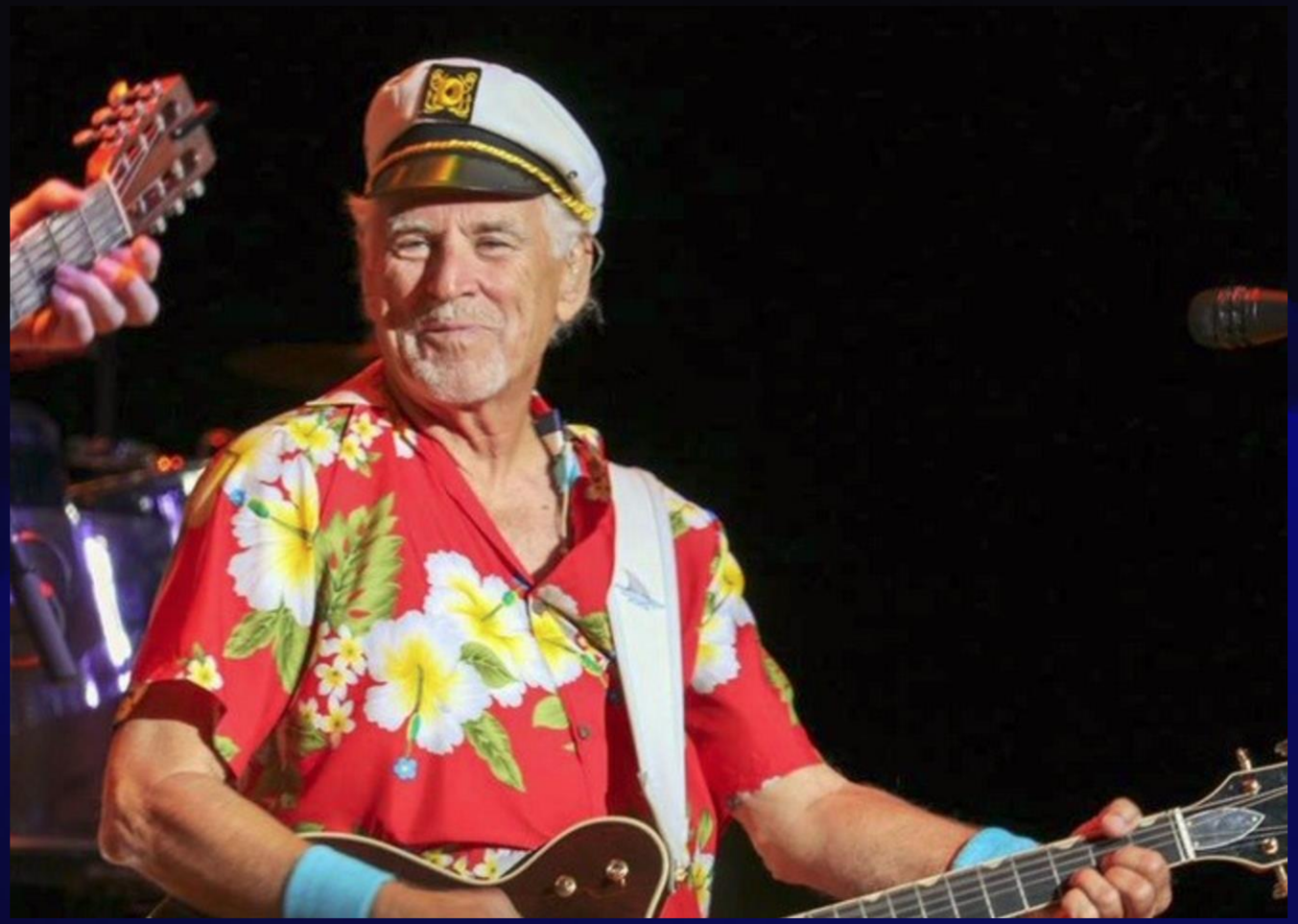
- Look for sites of inflammation, amputations, scars and burns.
- Specific sites:
  - Plantar foot- destructive to bone
  - Oral cavity
  - Anogenital region Buschke-loewenstein condyloma
- Needs deep biopsy; consider MRI
- First line surgical excision or MOHS
- Avoid radiation, case reports of transformation to aggressive SCC



PHOTOGRAPH SOURCED FROM PERSONAL PATIENT

Merkel cell Carcinoma

- Cutaneous neuroendocrine carcinoma (both neuroendocrine and epithelial differentiation)
- Head and neck 50%
- Average age 75-80
- Northern European or immunocompromised
- Etiology UV radiation and polyomavirus
- Asymptomatic, firm, nontender, solitary and rapidly expanding nodule.

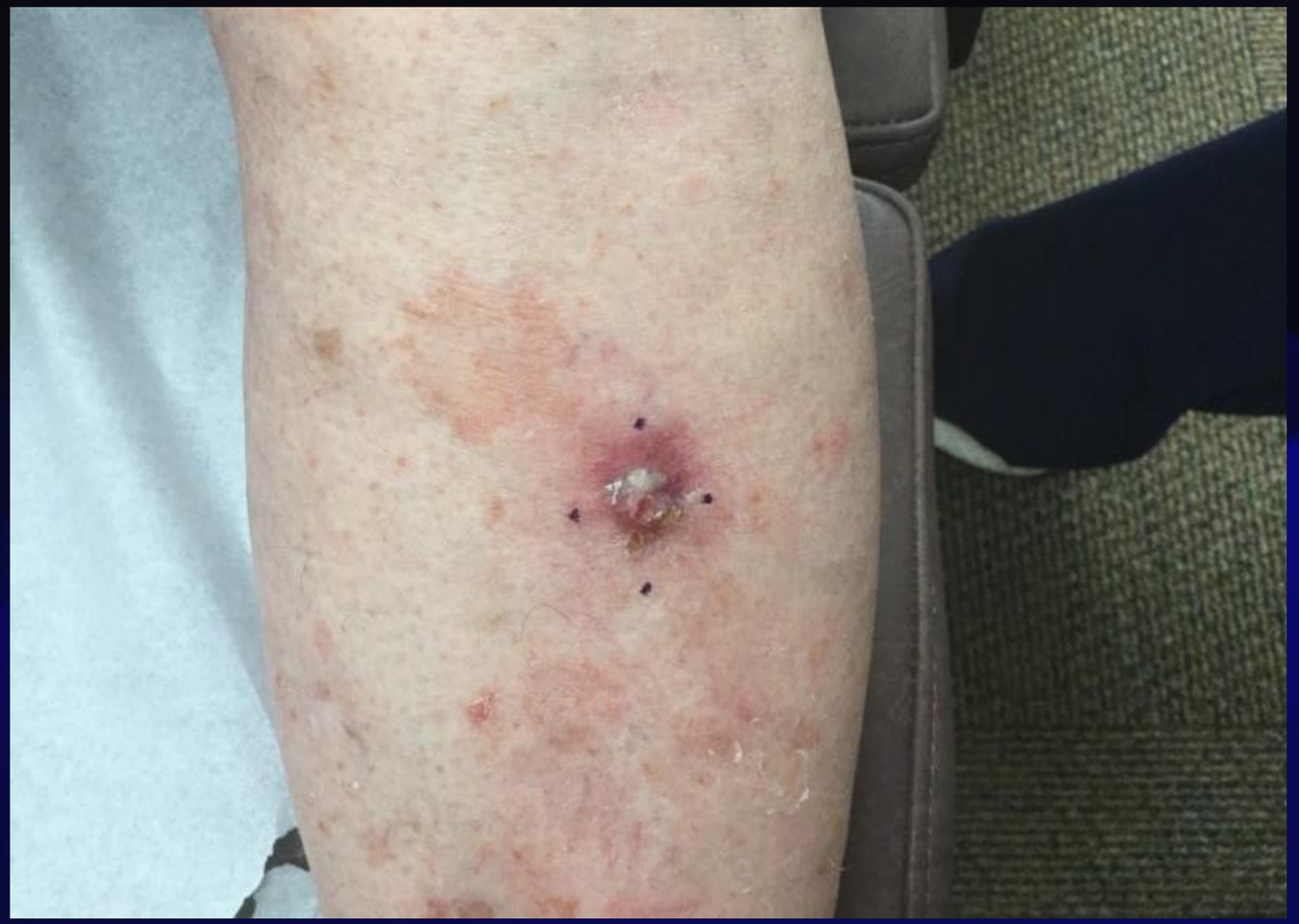


Jimmy Buffett

December 25th, 1946- September 1st, 2023 (Age 76)

Merkel cell Carcinoma

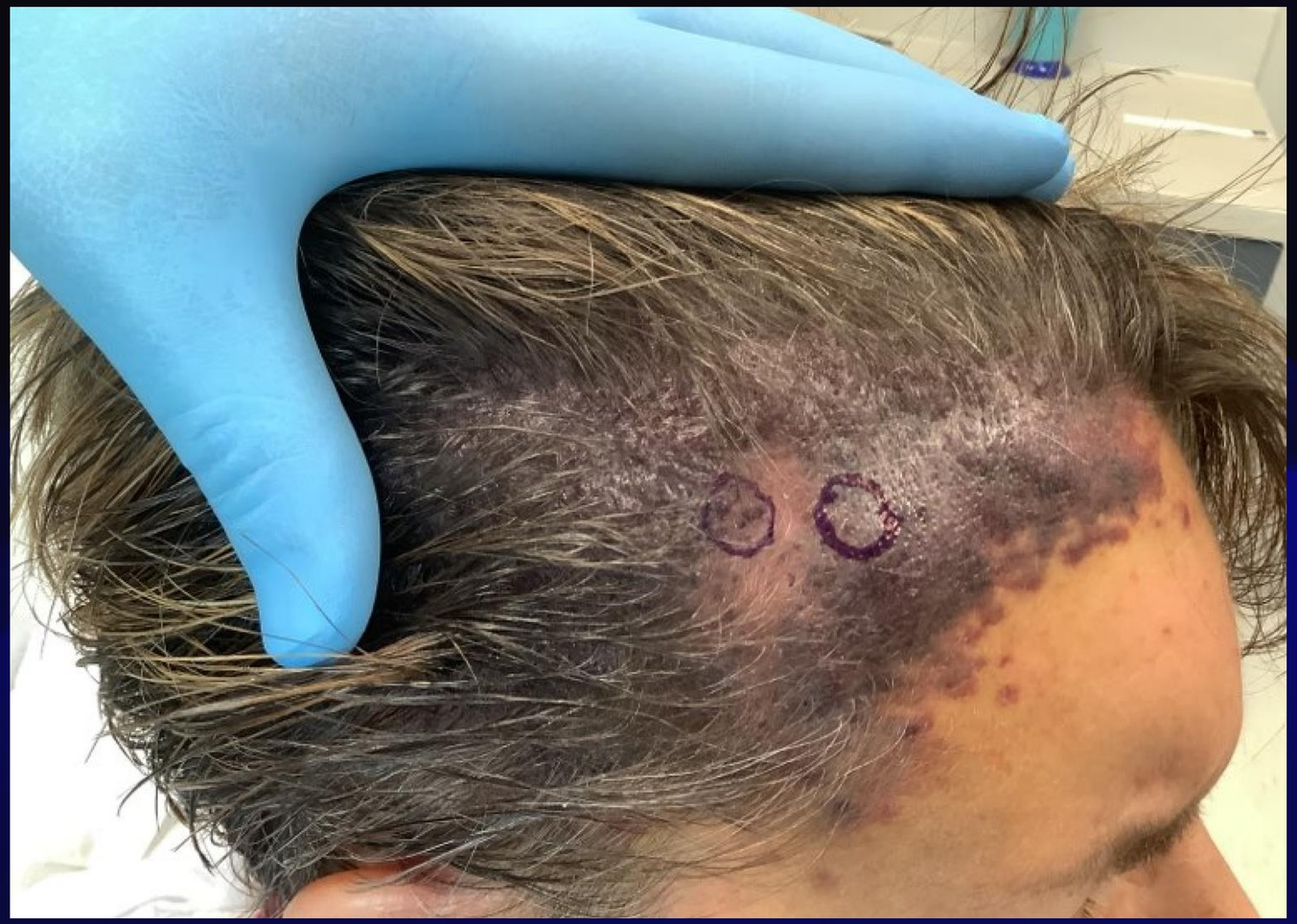
- High recurrence rates and metastasis
- 5 year relative survival is approximately 60%
- Reoccurrence rate 40%
- Cell origin still in debate despite the name.
- Excision and MOHS; sentinel lymph nodes, if indicated
- Radiation and PD-1 antibody



PHOTOGRAPH SOURCED FROM PERSONAL PATIENT

Angiosarcoma

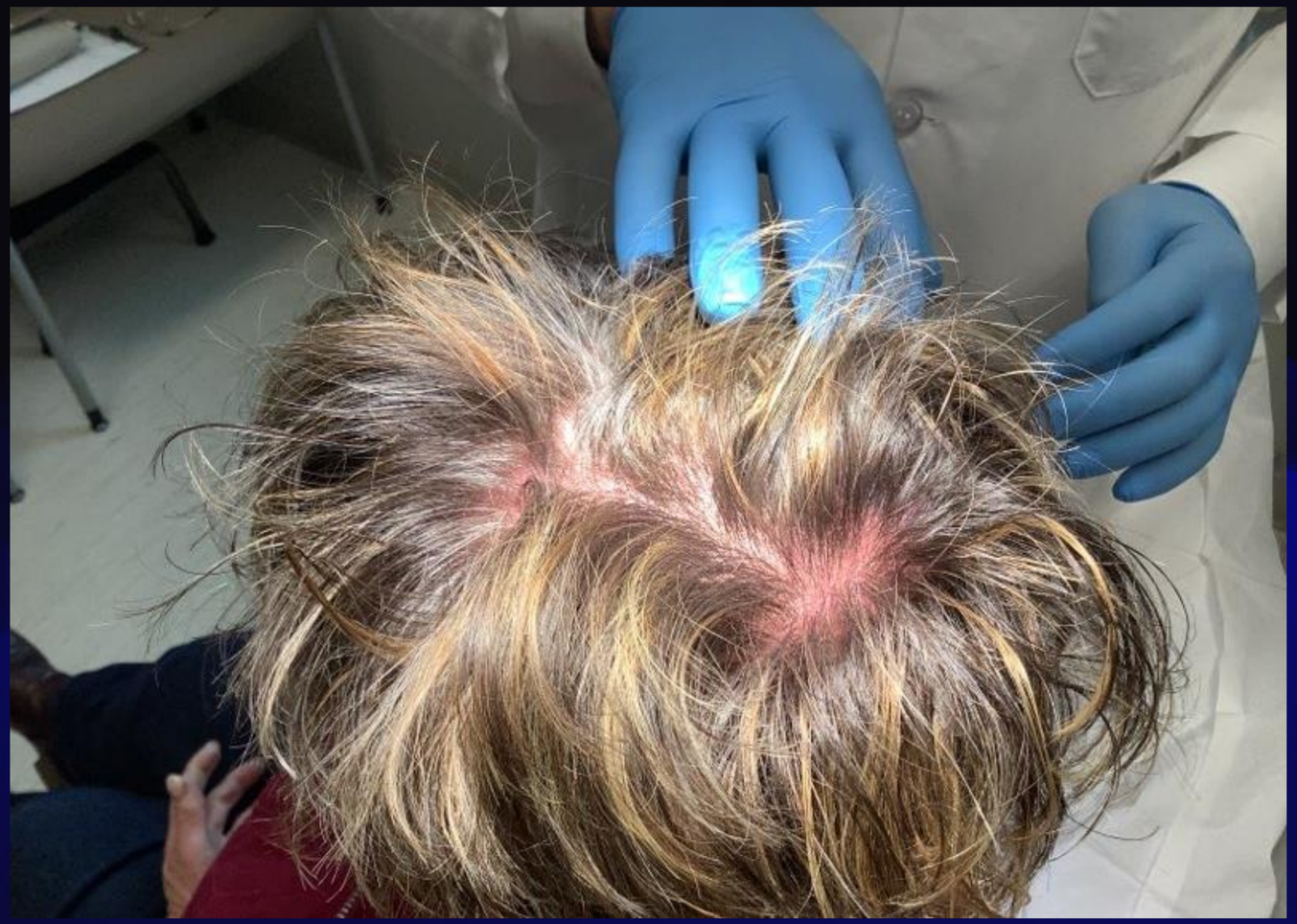
- Rare, aggressive, malignant neoplasm vascular endothelial cell origin.
- Most frequently head(scalp) and neck. Older individuals.
- Sites of radiation or lymphedema (younger population)
- Rapid growth and common metastasis.
- 5-year survival rates 11-50%
- Excision and MOHS; sentinel lymph nodes, if indicated
- Radiation and PD-1 antibody



PHOTOGRAPH SOURCED FROM PERSONAL PATIENT

Angiosarcoma

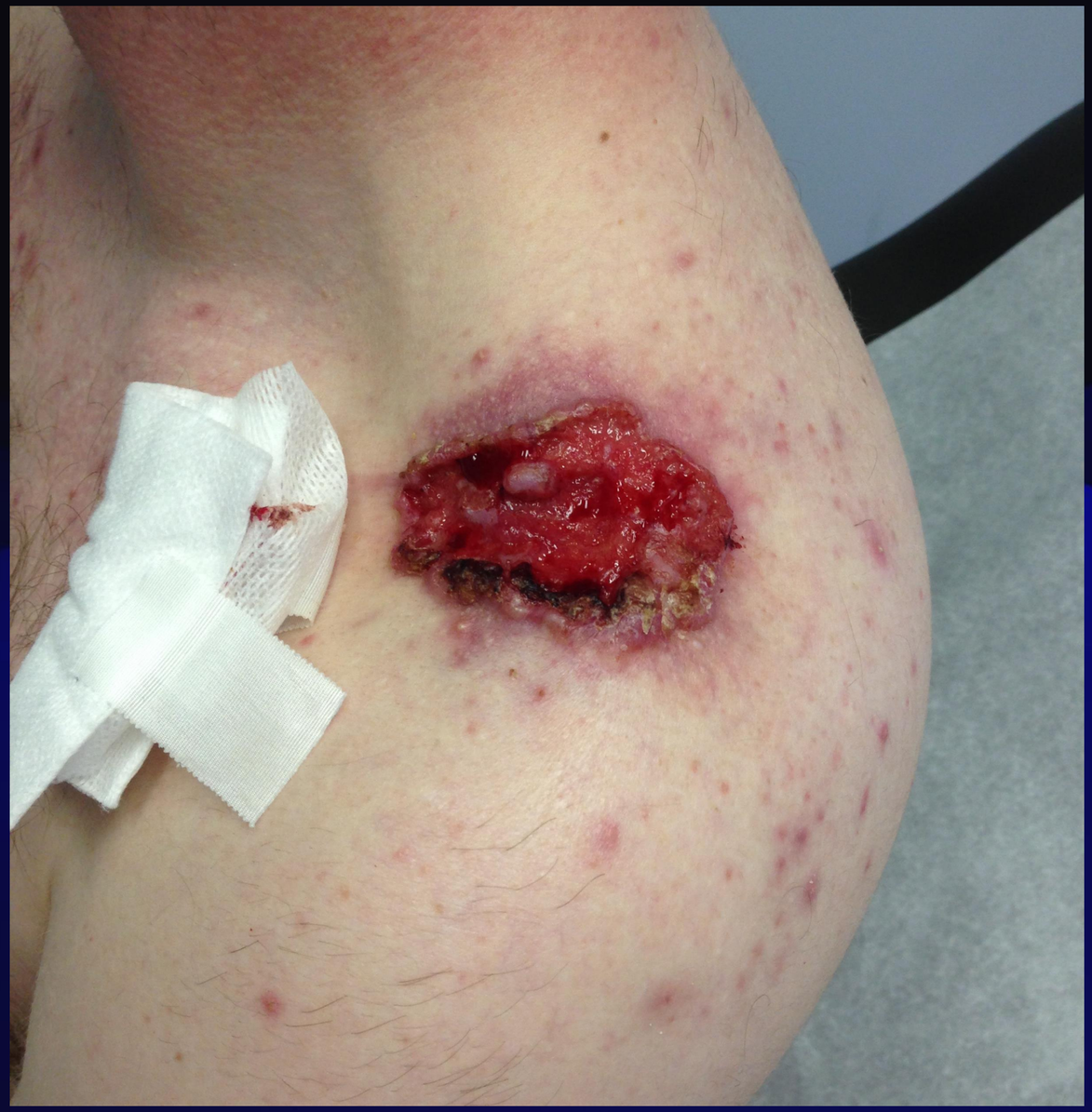
- Infiltrative growth makes complete resection difficult to achieve.
- Wide local exision + adjuvant radiotherapy and sometimes chemotherapy.
- Unresectable or metastatic disease, chemotherapy. Immunotherapy checkpoint inhibitors are also being investigated.



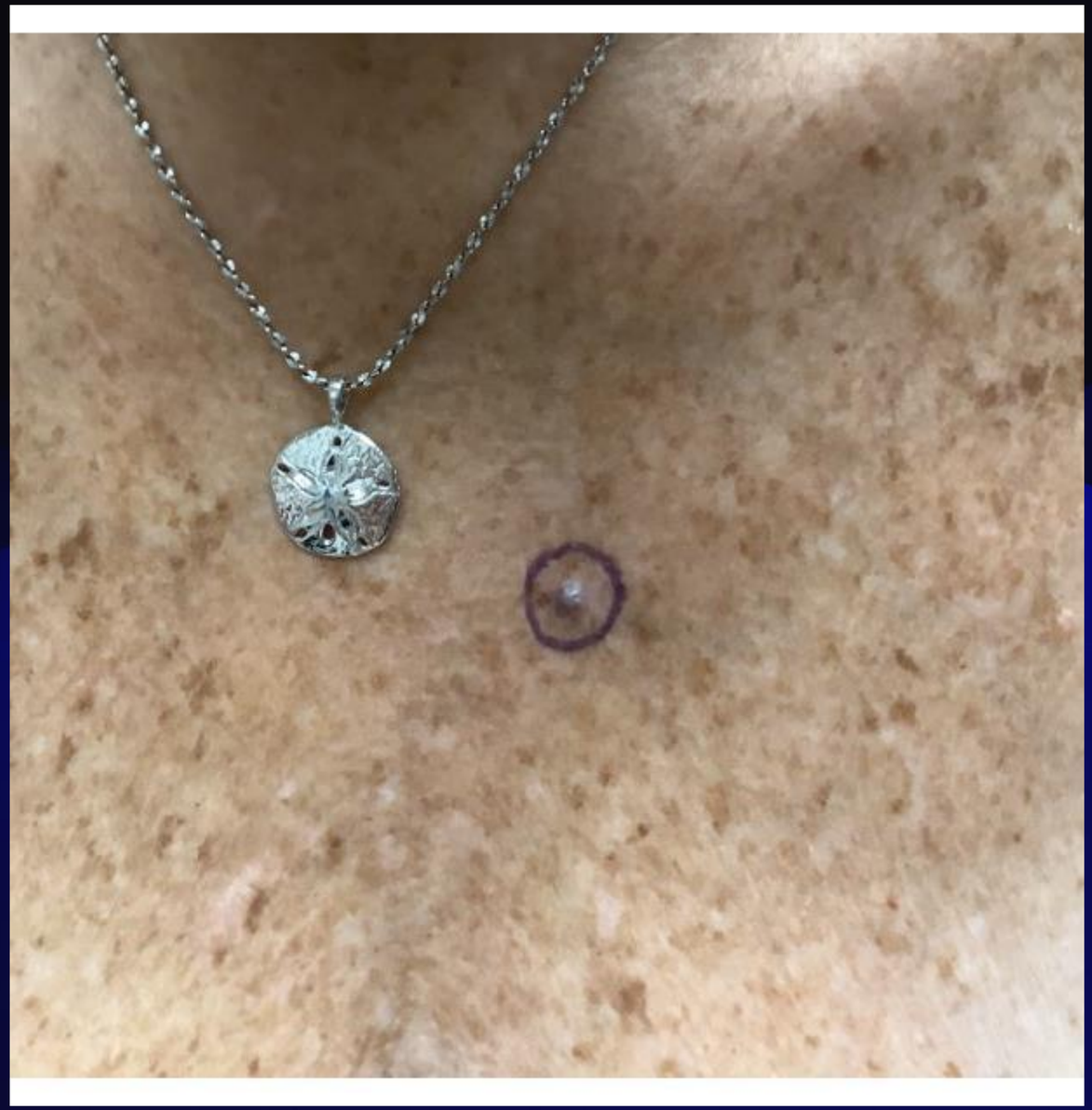
PHOTOGRAPH SOURCED FROM PERSONAL PATIENT


Lightning Round

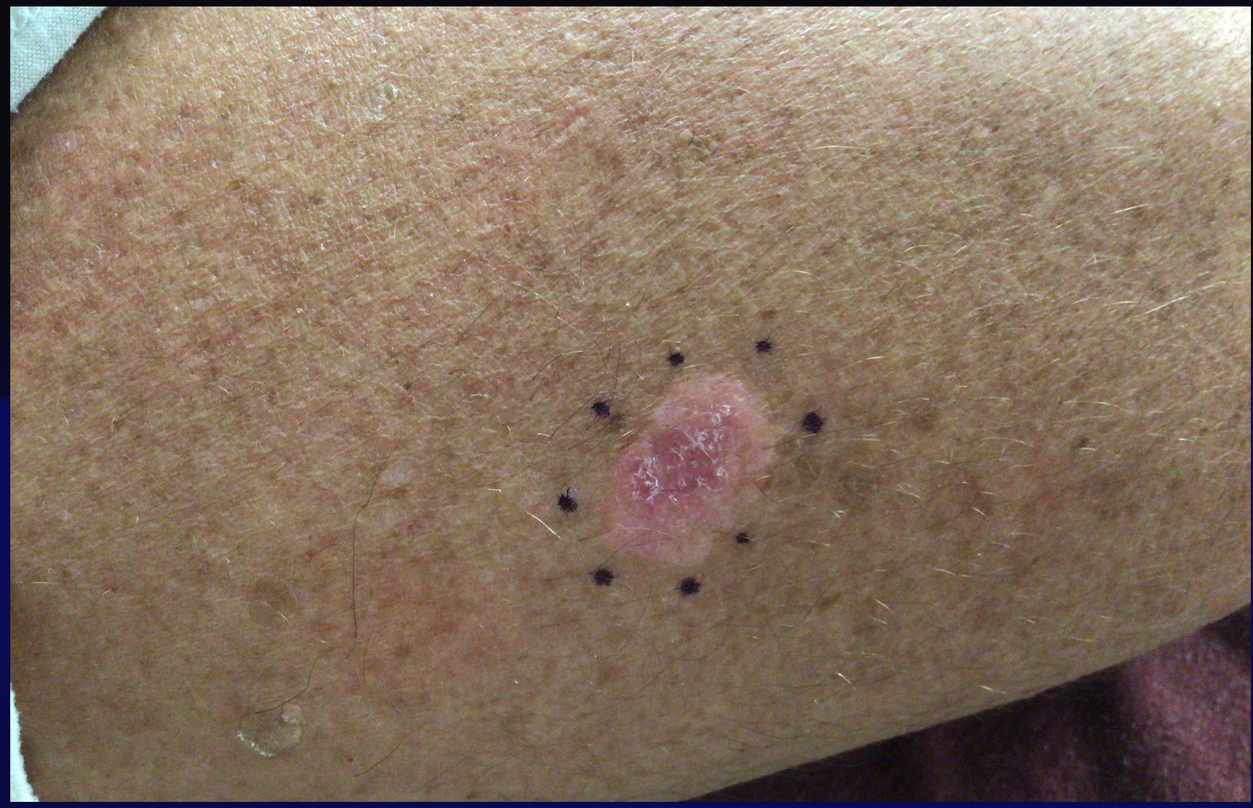
Nodular Basal Cell Carcinoma on a 27 y/o present 3 years



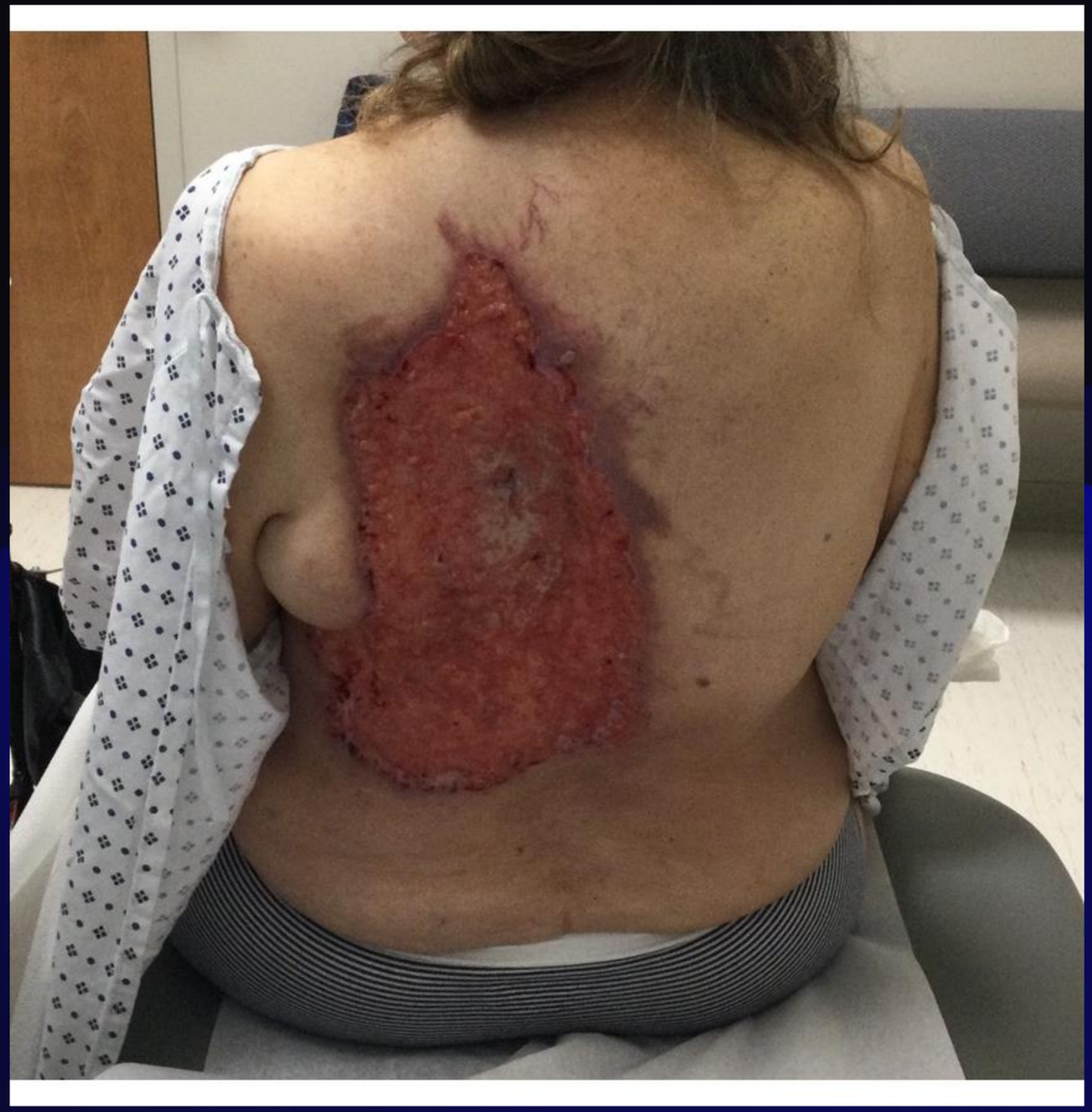
Nodular Melanoma on a 77 y/o breslow 1.5mm

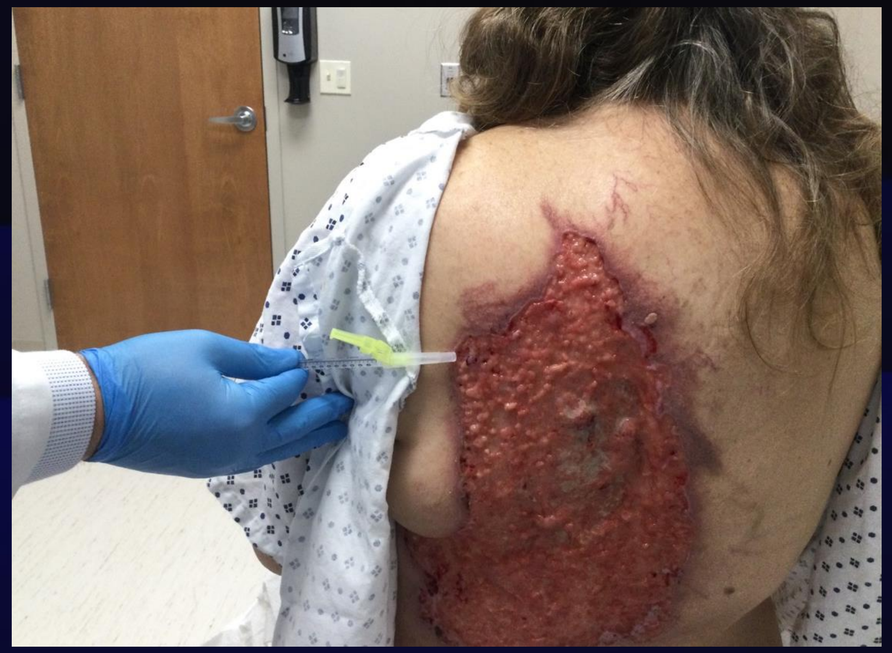


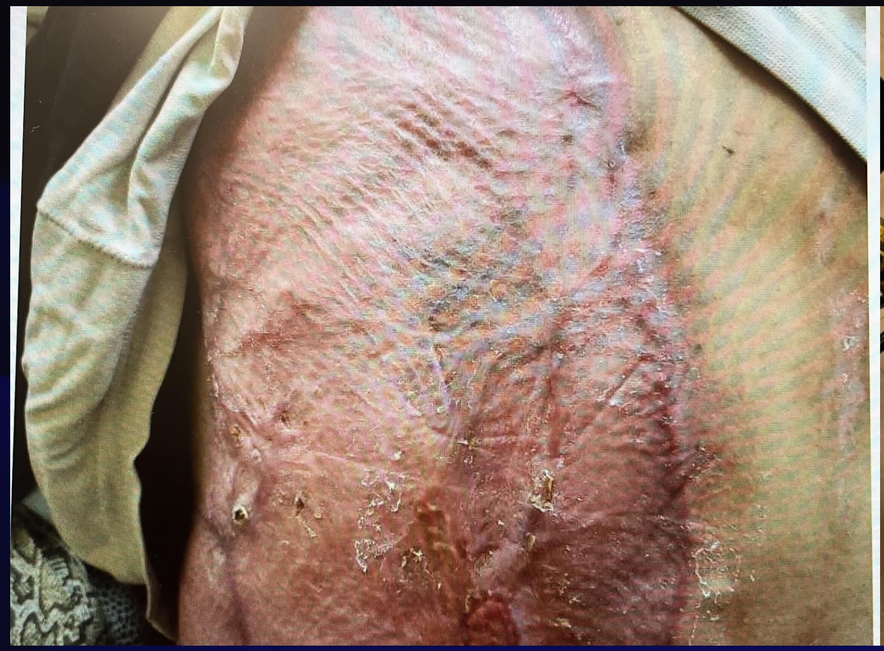
Amelanotic Melanoma Breslow .5 mm

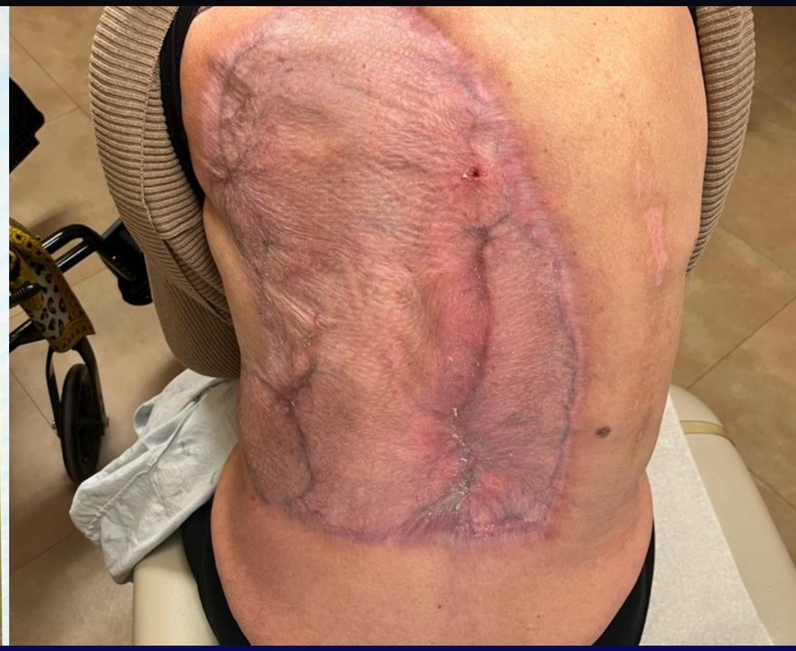


Basal Cell Carcinoma

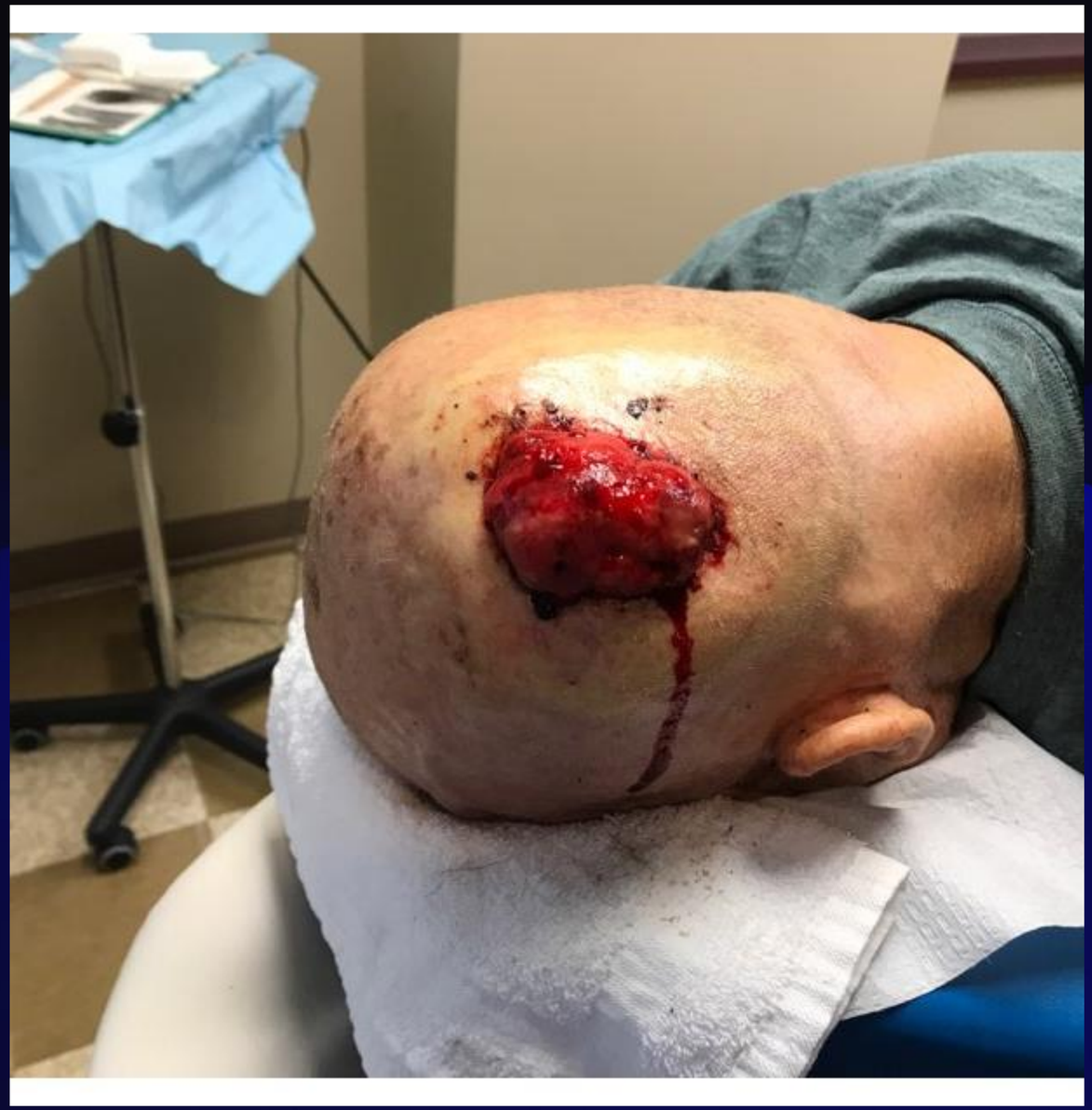


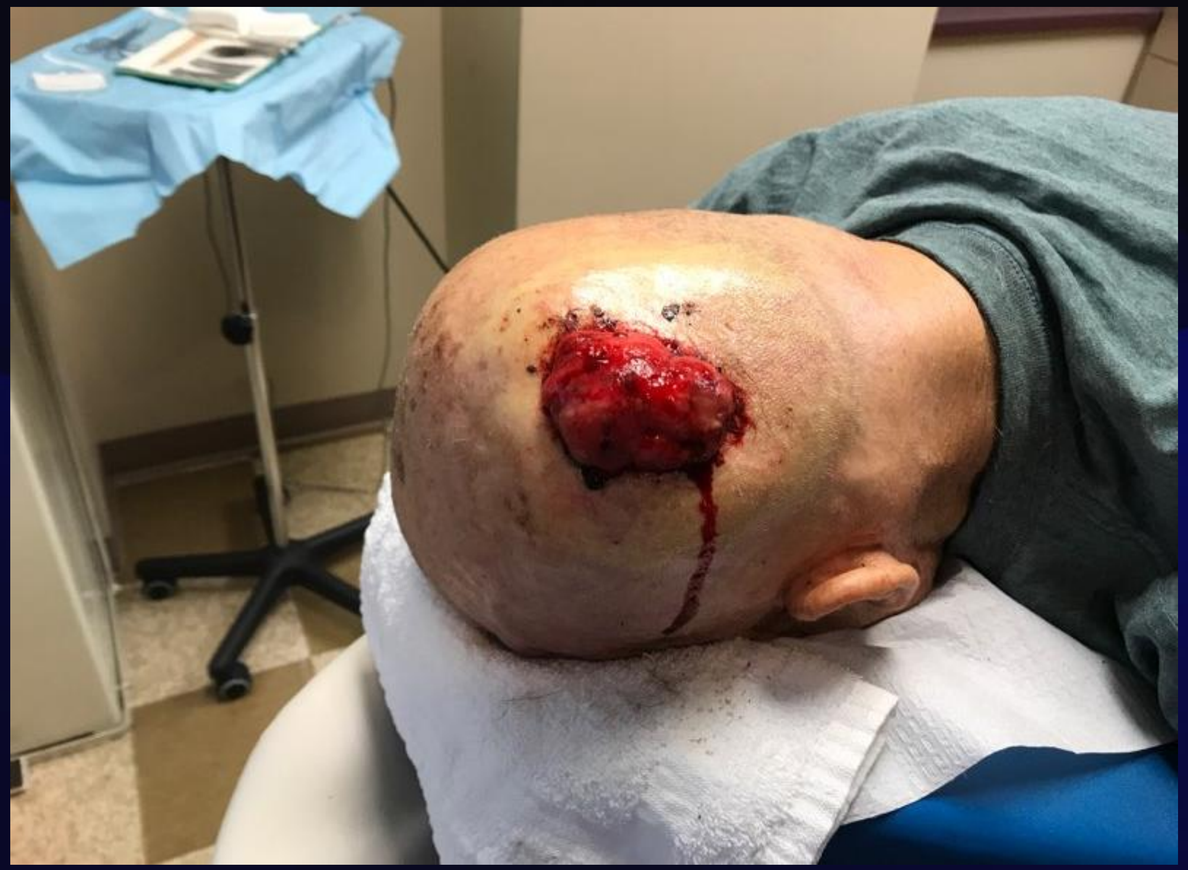


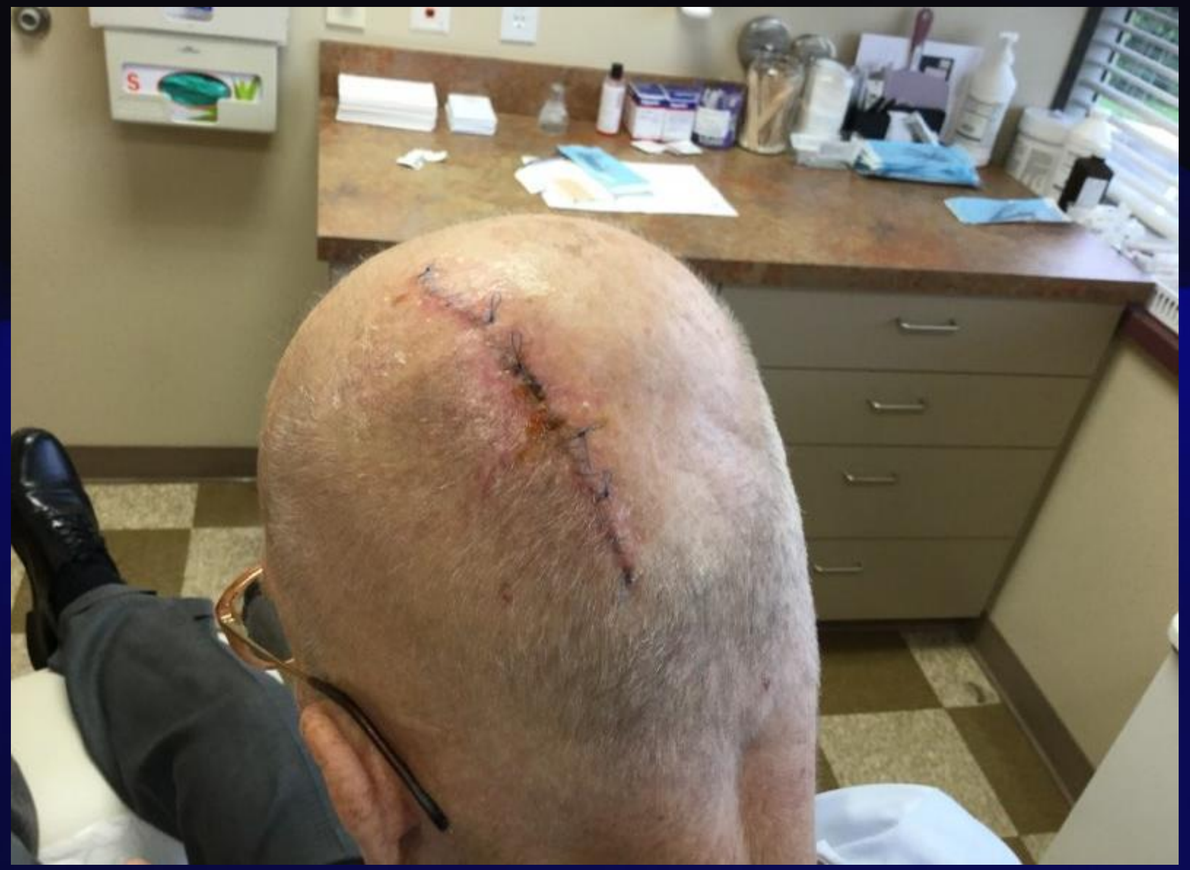




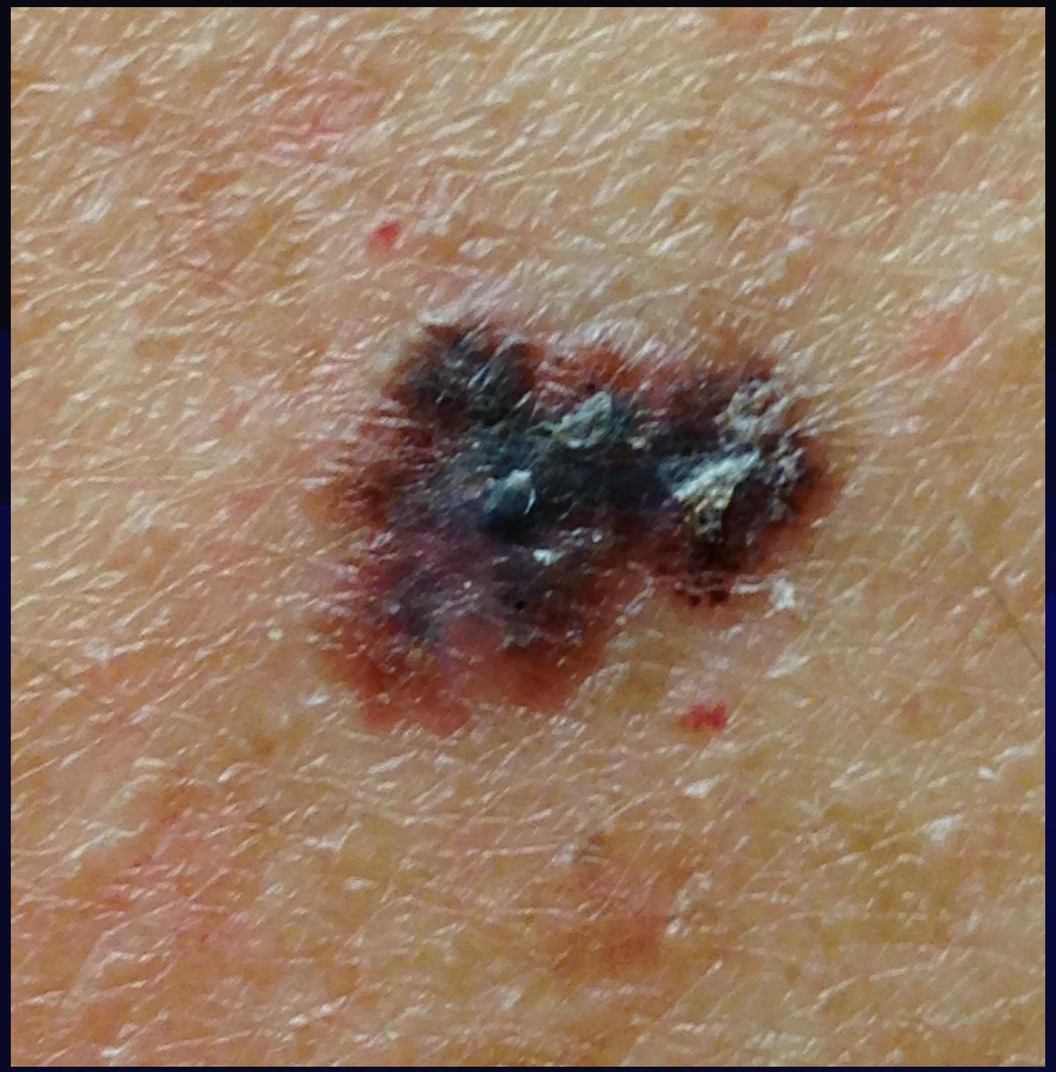
Metastatic Melanoma



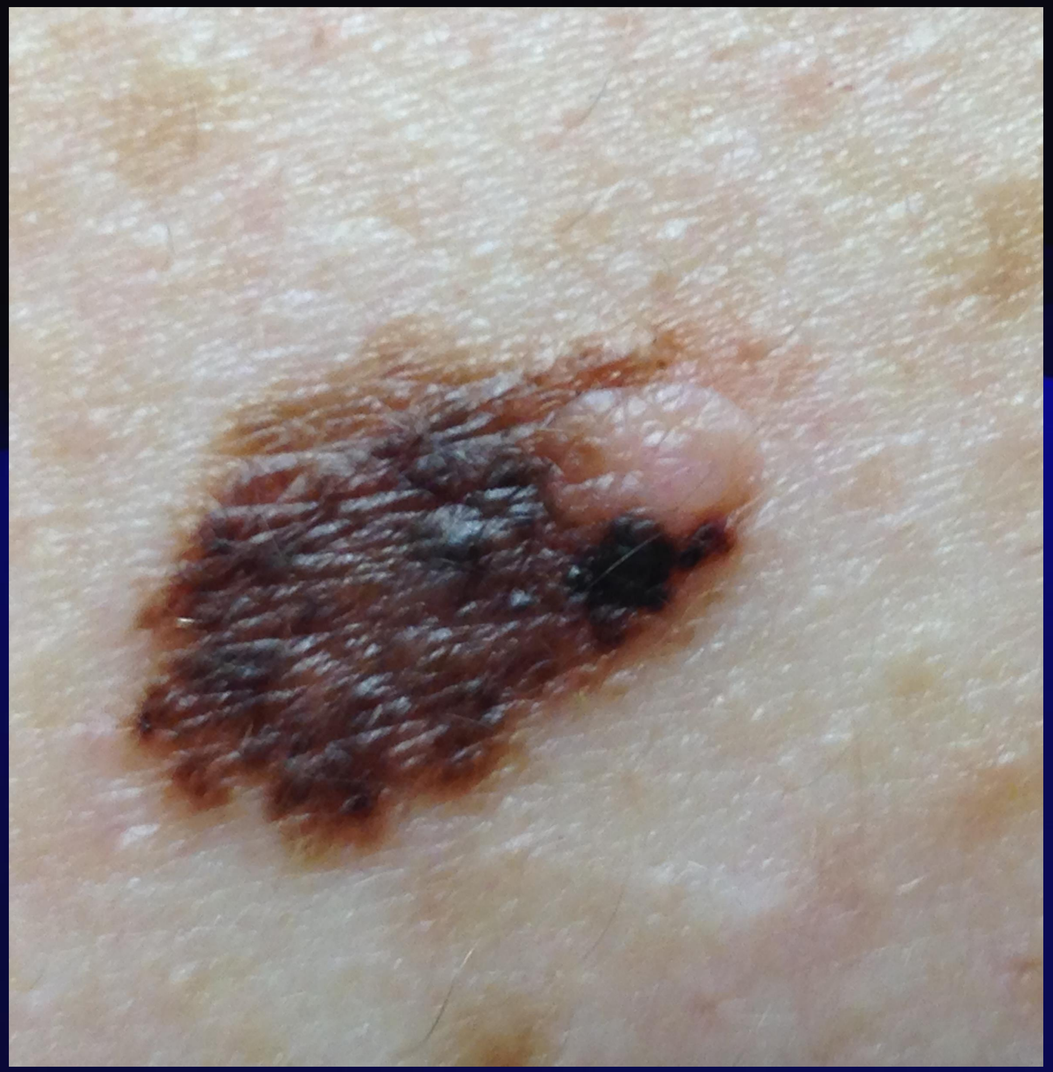




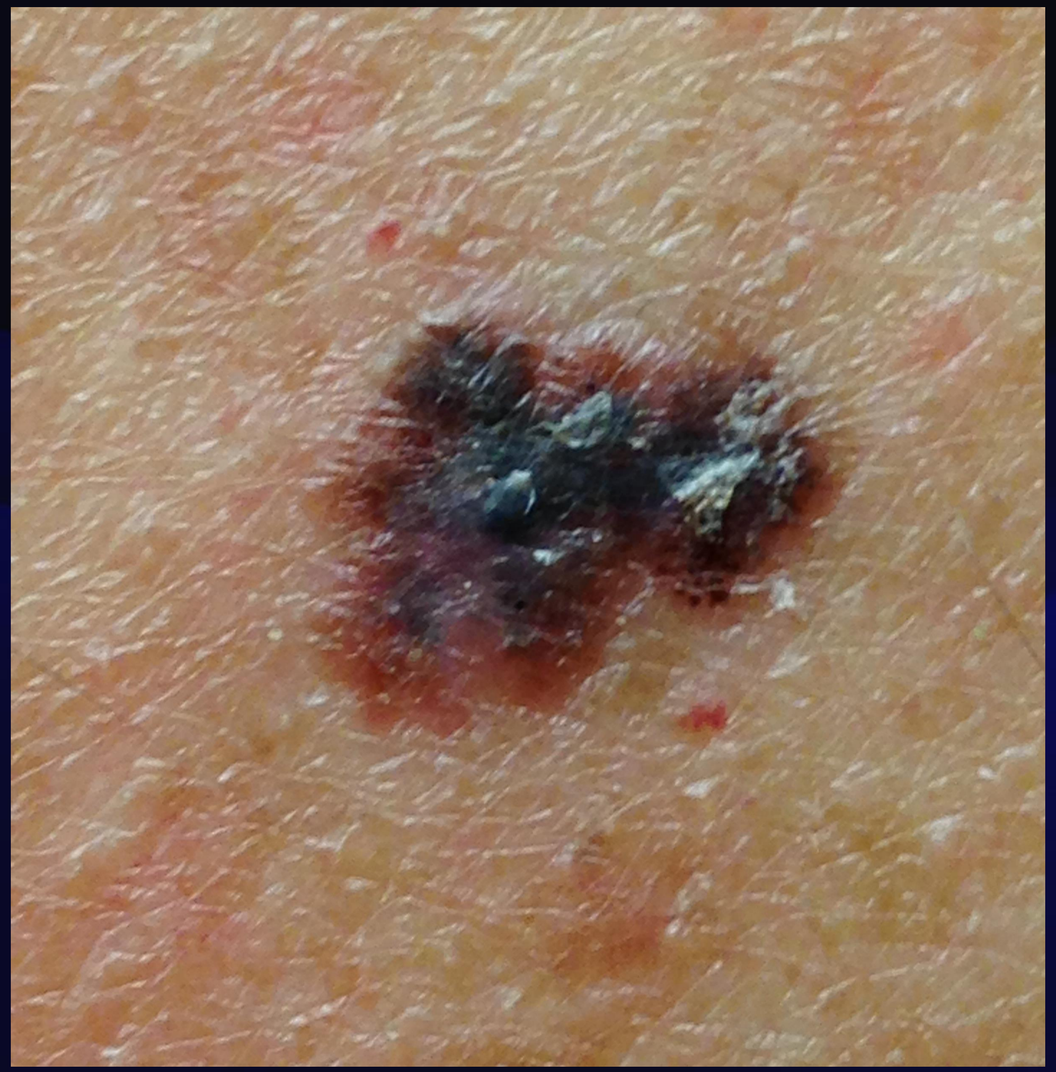
39 y/o female right upper back present 6 months



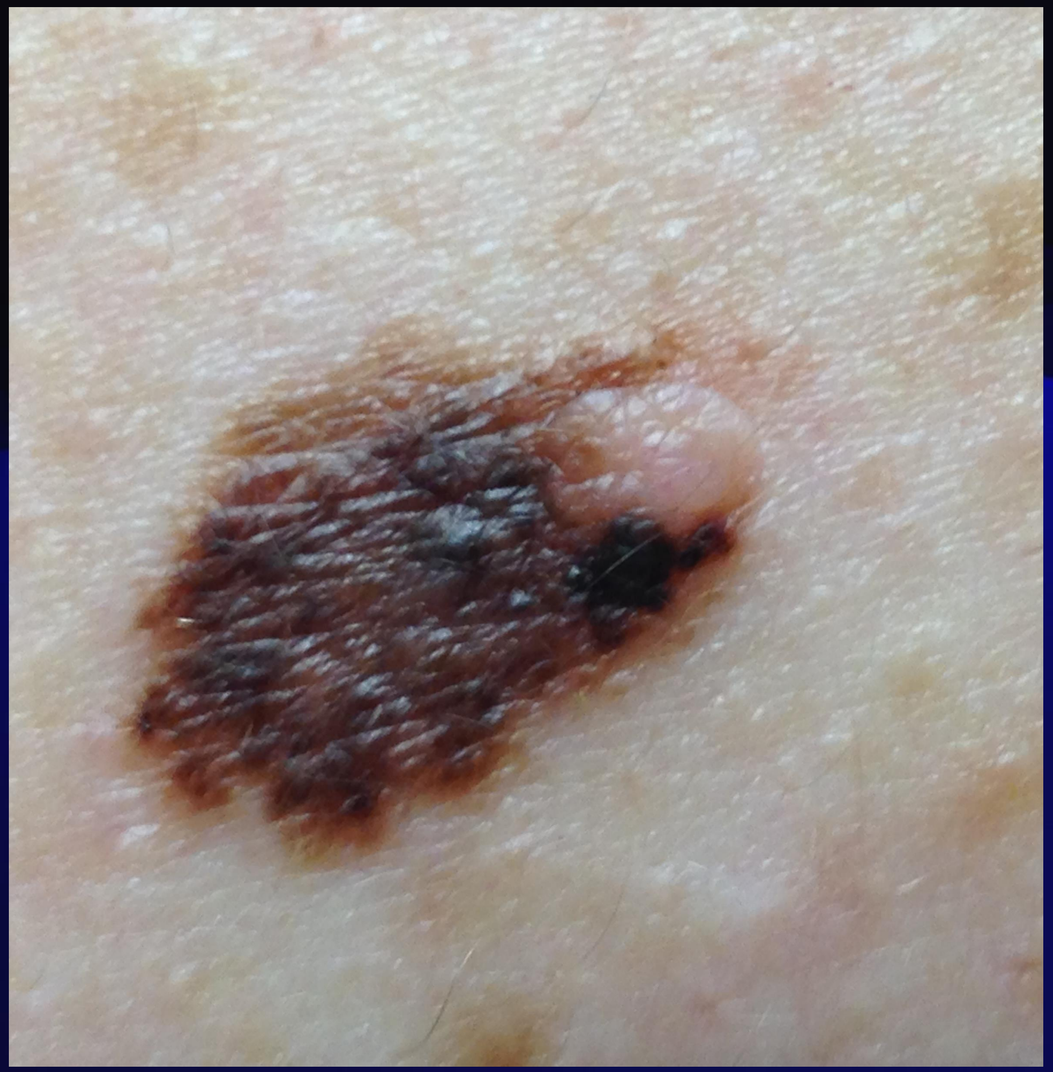
42 y/o female left upper back present 8 months



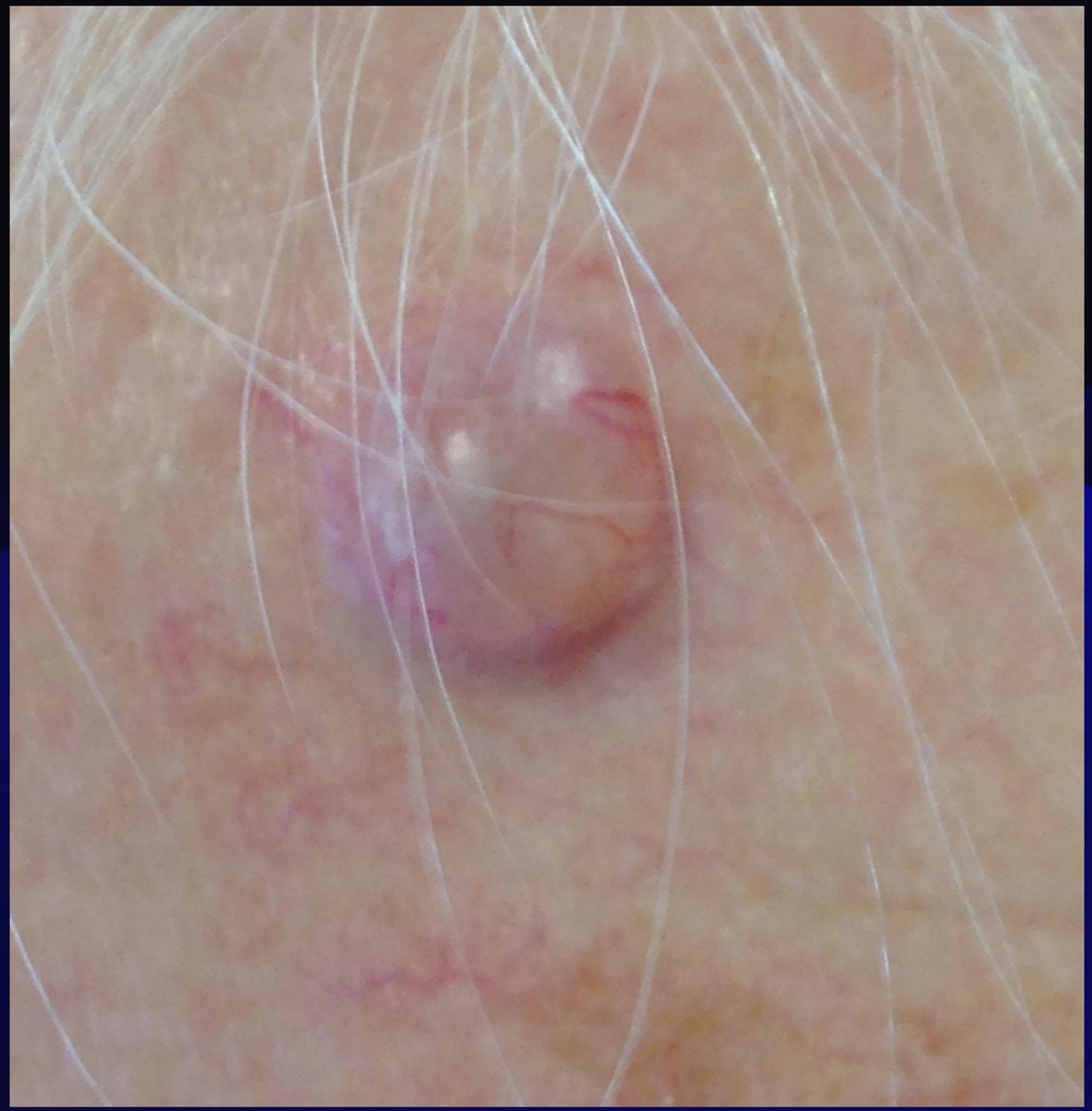
Superficial spreading malignant melanoma breslow 0.3mm



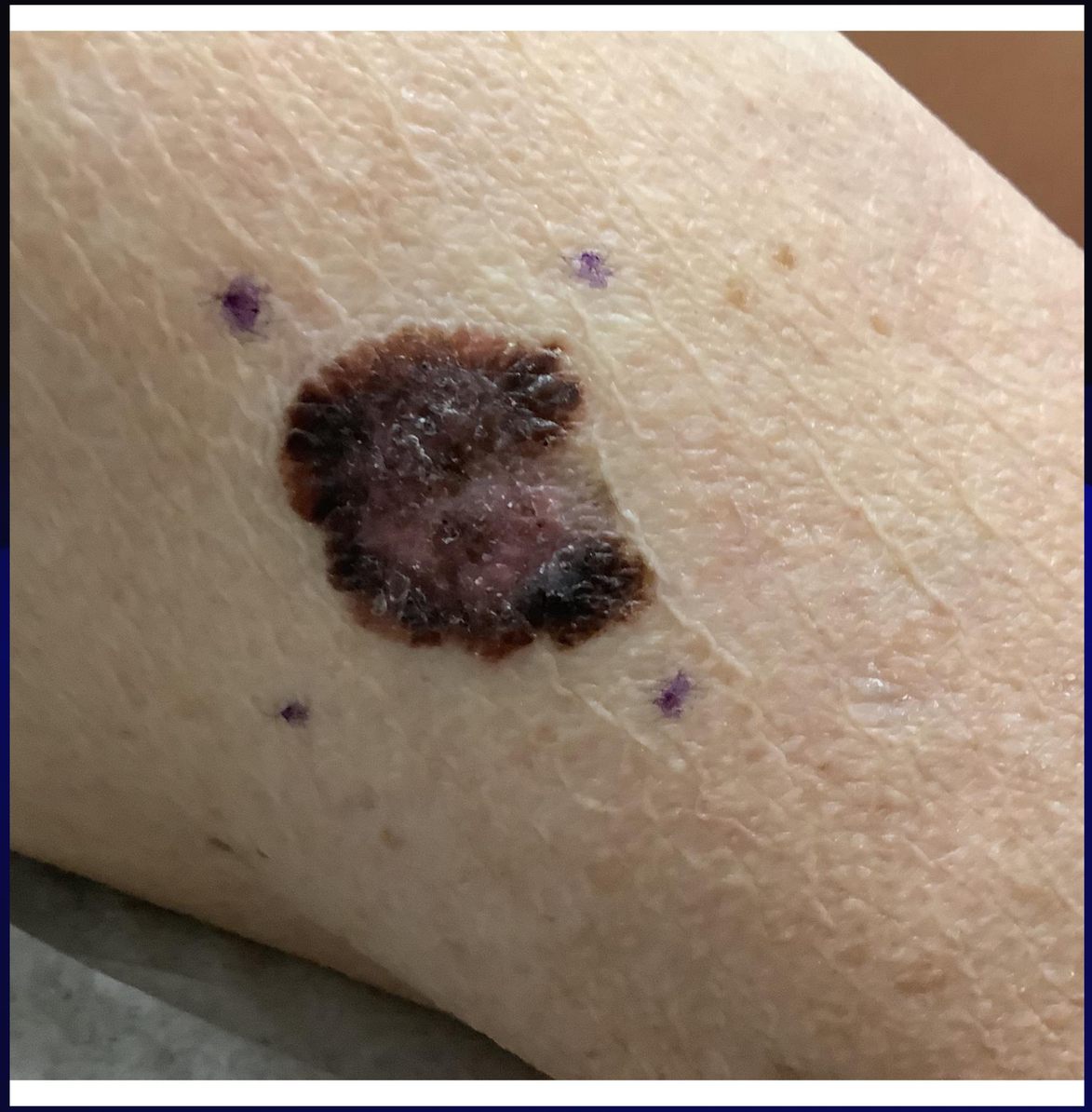
Dysplastic nevus with moderate cytologic and architectural atypia



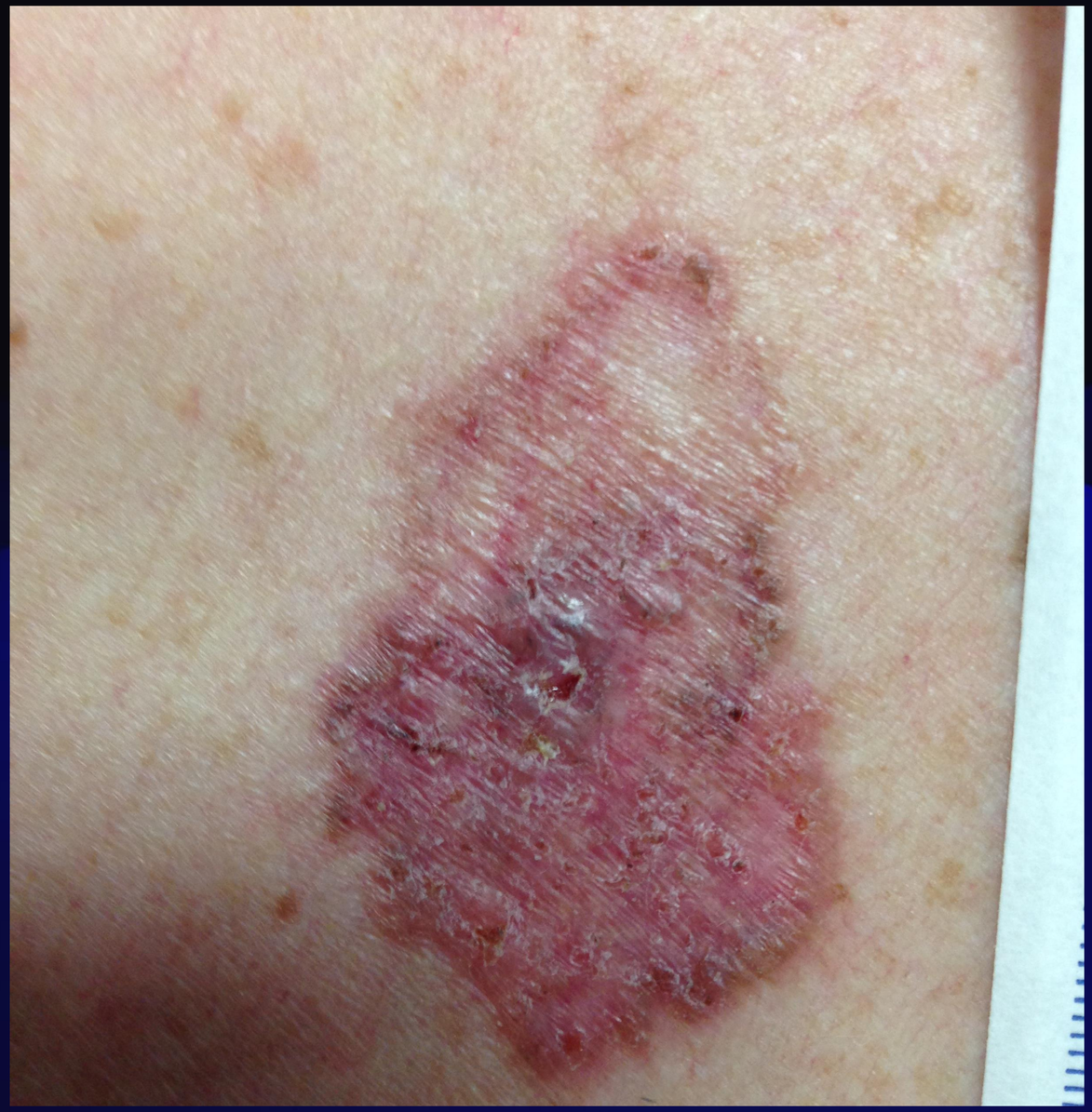
Nodular Basal Cell Carcinoma



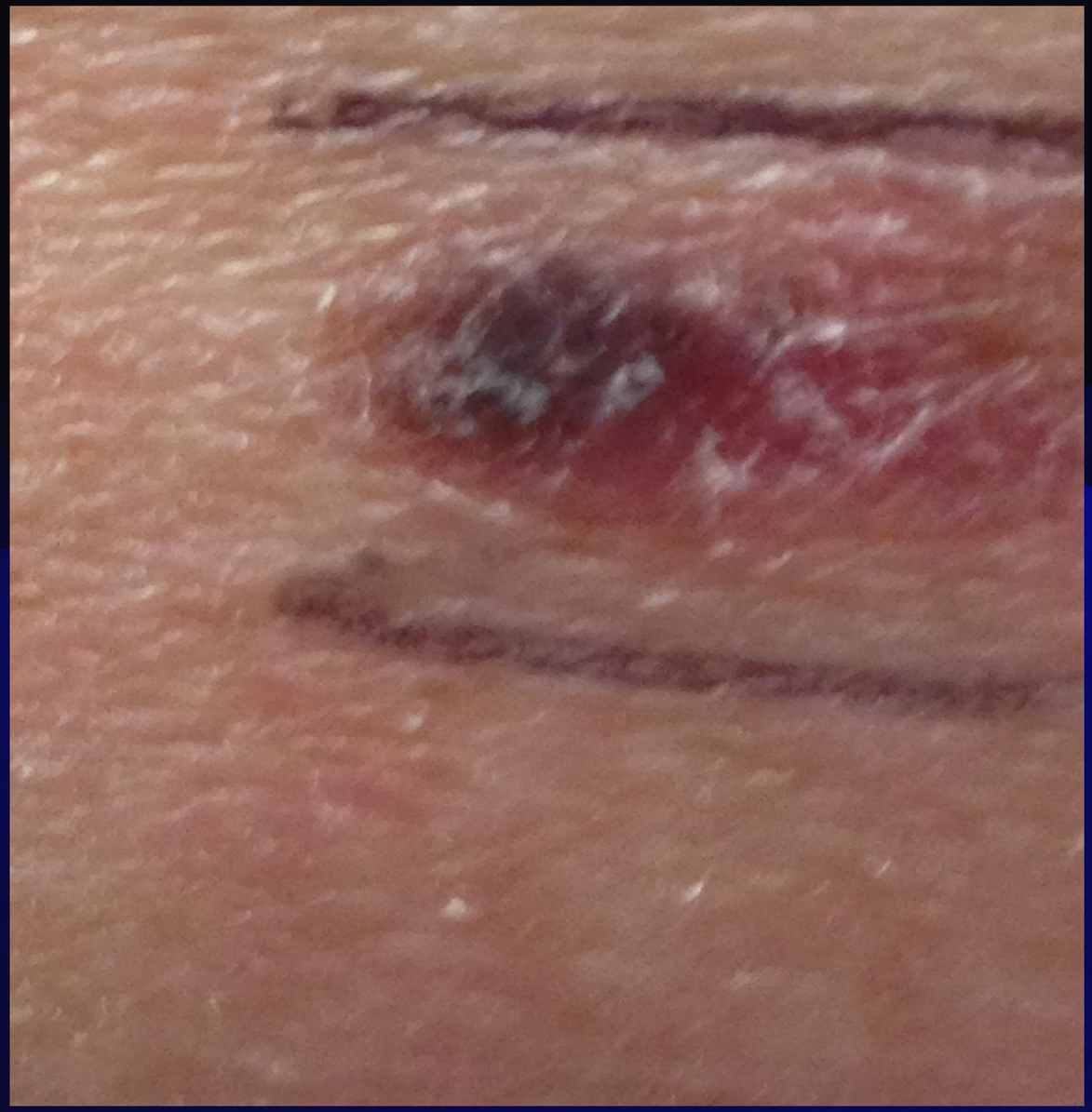
Superficial Spreading Melanoma Breslow 0.55 mm



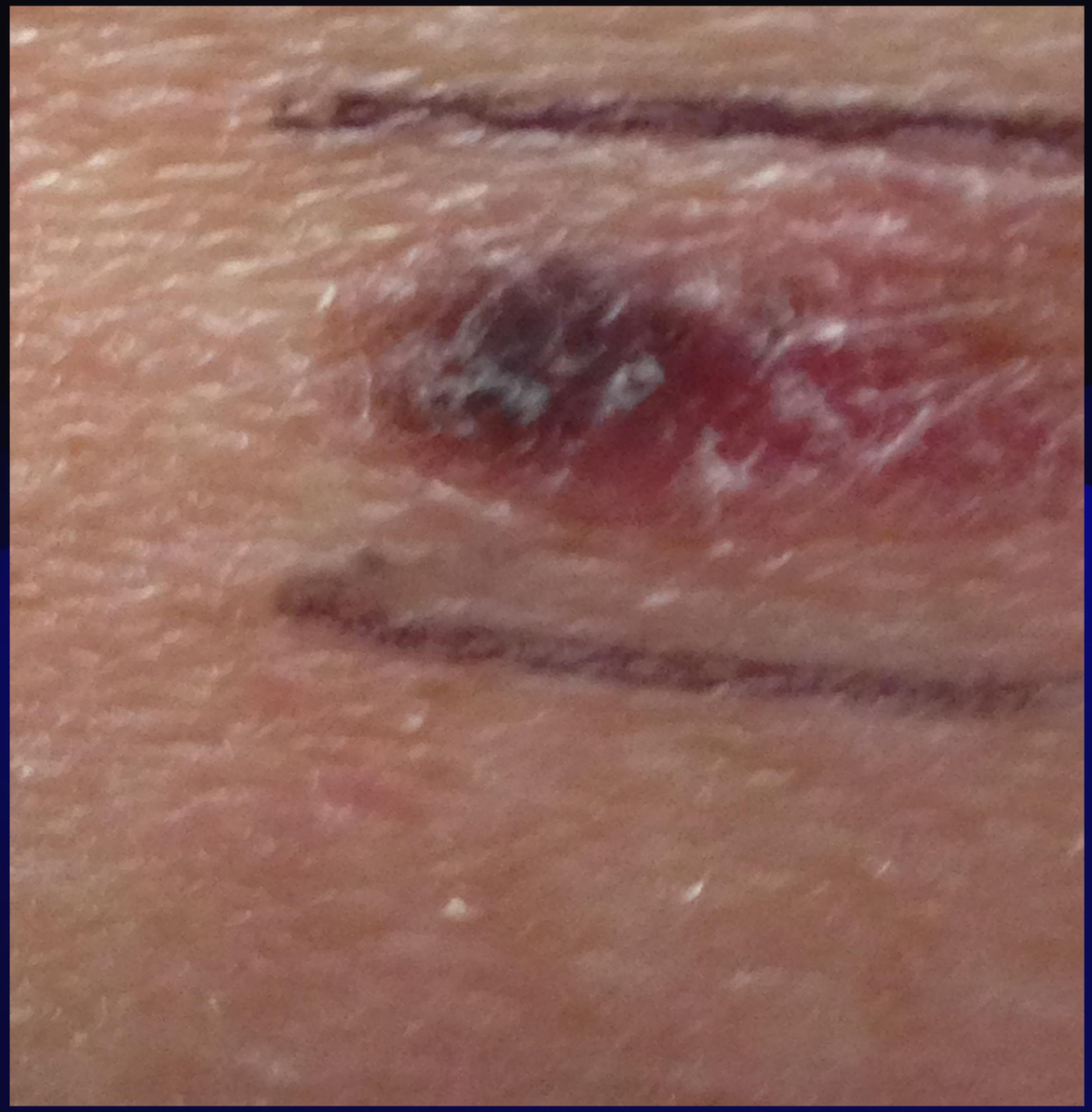
Pigmented and Superficial Basal Cell Carcinoma



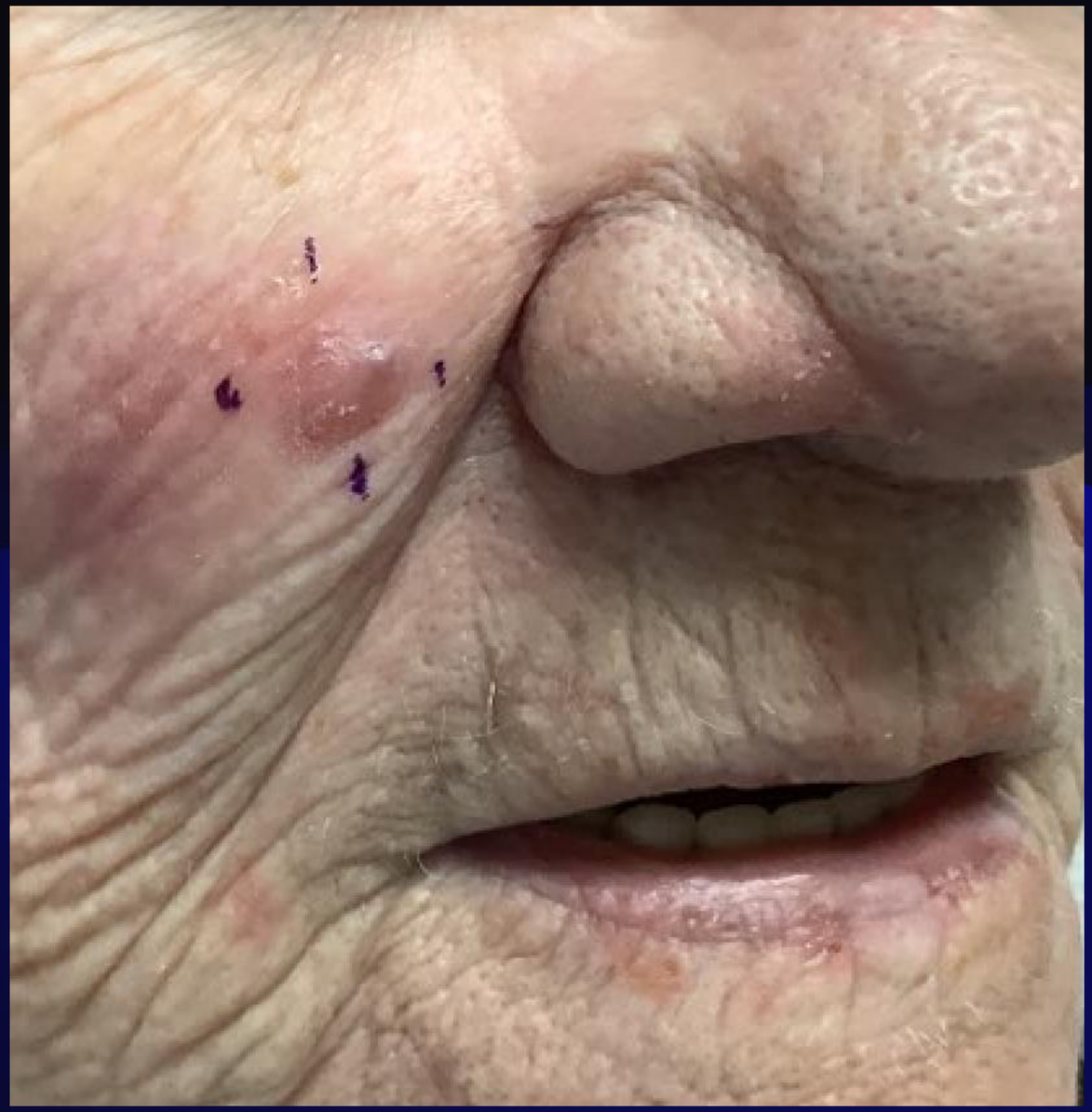
32 y/o solitary lesion, unknown duration, right lower back.



Superficial Spreading Melanoma
Breslow 0.6mm



Nodular Amelanotic Malignant Melanoma Breslow at least 1.4mm




SUNSCREEN, YOU CAN NEVER HAVE ENOUGH.

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