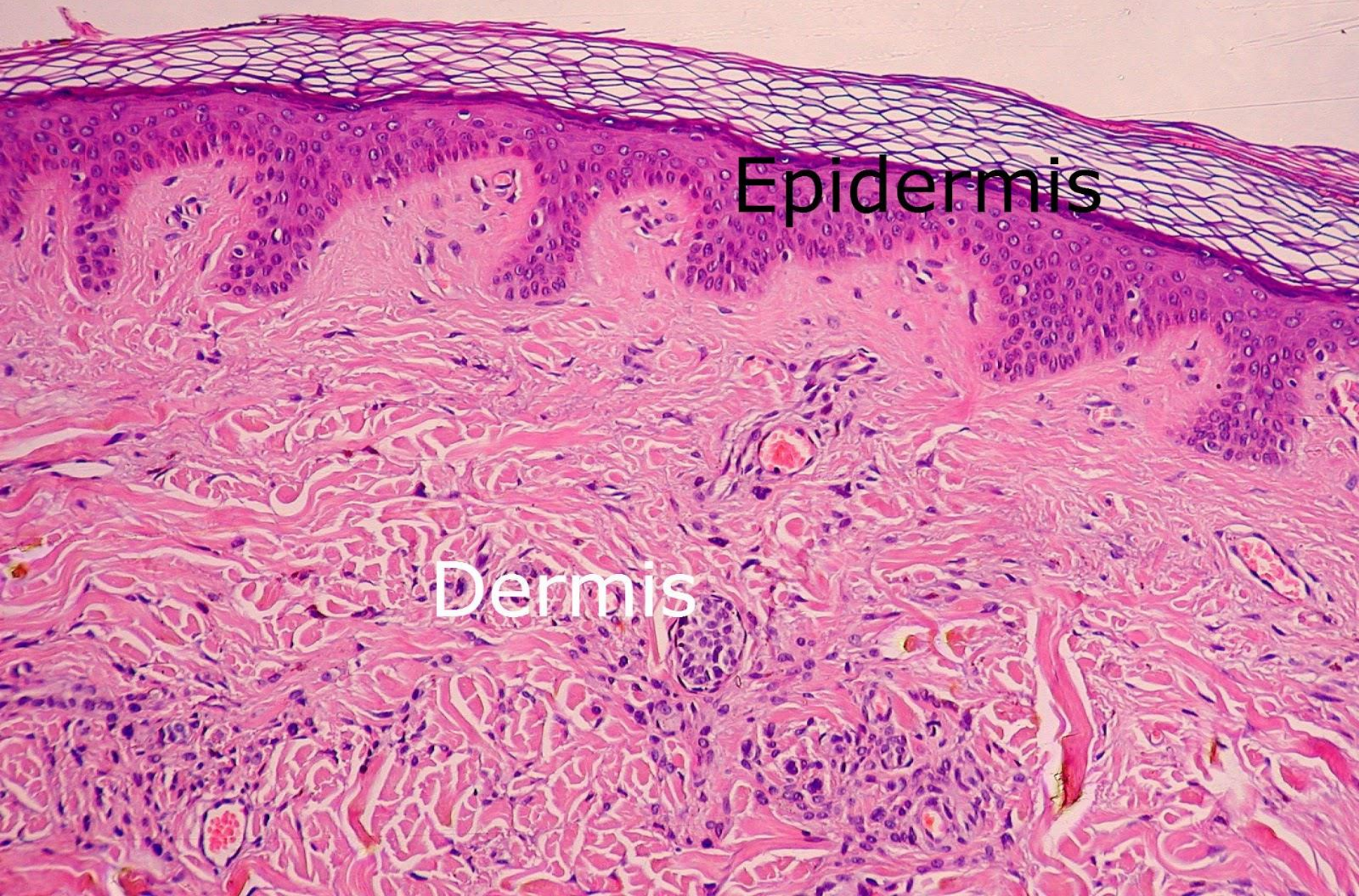
Pathology of soft tissue and skin. Bone and joint pathology.



Pathology of soft tissue and skin. Bone and joint pathology.

I.Microspecimens:

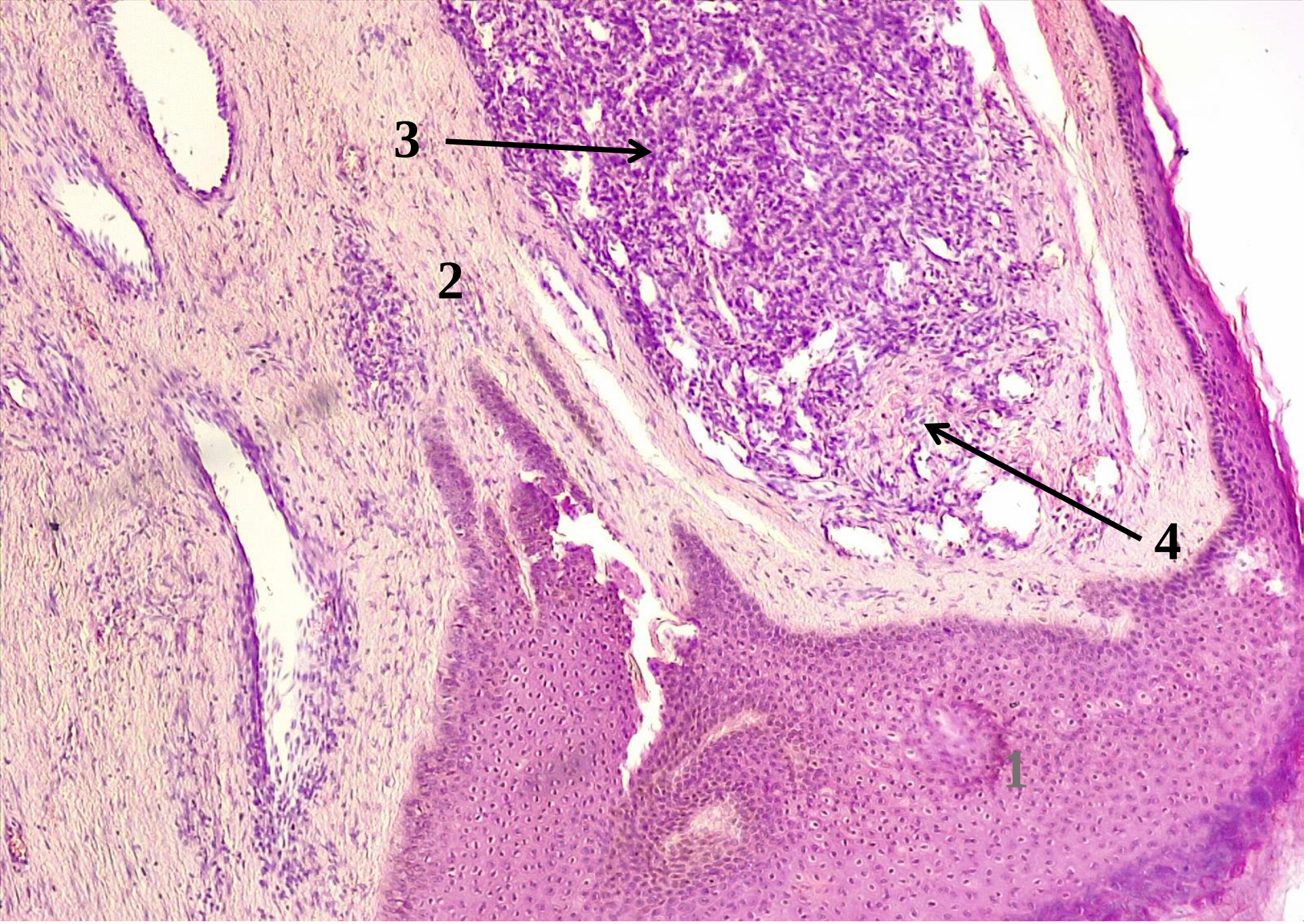
№ 188. Capillary hemangioma. *(H.E. stain).*

Indications:

1. Epidermis.
2. Dermis
3. Spindle cells arranged compactly with spaces containing blood.
4. Reduced connective stroma.

In the microspecimen is presented a well-defined subepidermal tumoral node, consisting of proliferating capillary blood vessels, poor loose stroma; epidermis with normal histological structure.

Hemangioma is a benign tumor of vascular origin, histological variants are capillary, venous and cavernous hemangioma. It is located mainly in the skin, the mucosa of the gastrointestinal tract, the liver. Capillary hemangioma is the most common benign tumor in children and has a disembryoplazic character, being interpreted as a hamartoma - a tumor from the embryonic tissues. Macroscopically it has the appearance of a red-purple node or plaque. Cutaneous hemangiomas can be complicated by exulceration, bleeding, the association of secondary infection.



№ 188. Capillary hemangioma. *(H.E. stain).*

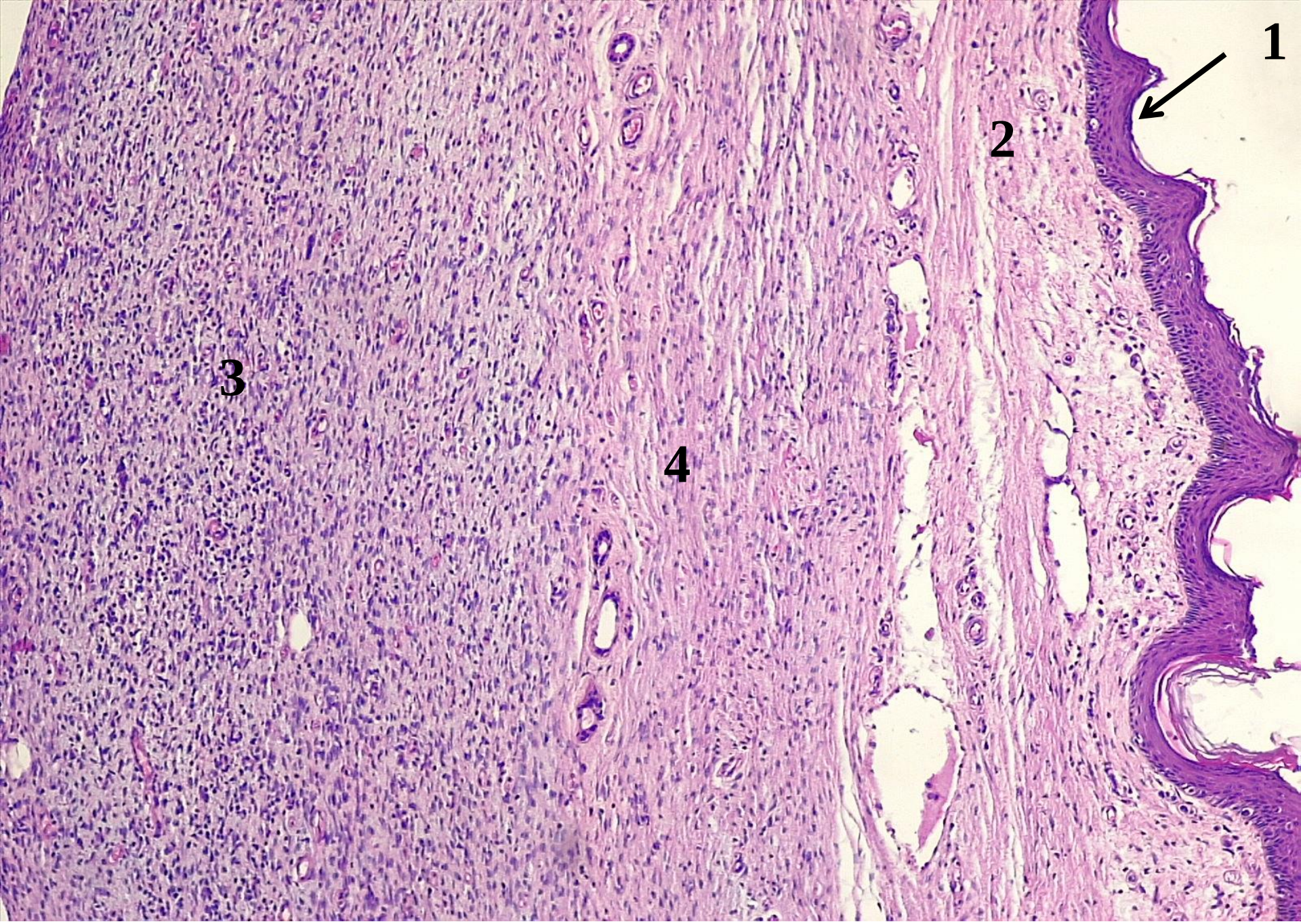
№ 43. Fibrosarcoma. *(H.E. stain).*

Indications:

1.Epidermis.
2.Dermis.
3.Atypical tumor cells (fibroblast-like).
4.Bundles of collagen fibers.

In the skin, under the epidermis there is a rich cellular tumoral node, consisting of predominantly spindle-shaped cells, of the fibroblasts type, arranged in bundles, which intersect in different directions, the tumor has no precise limits, many mitoses, giant cells, foci of necrosis, hemorrhage, stroma is poor.

Fibrosarcoma is a malignant tumor, which derives from fibroblasts, may have different degrees of differentiation. It is found in adults between the ages of 40 and 70, located more frequently in the deep tissues of the hip, knee, in the retroperitoneal area. It has a locally destructive growth, recurs after excision and may metastasize by hematogenous route, usually in the lungs. The metastasis rate is relatively low in well-differentiated fibrosarcomas and very high in low-differentiation tumors. Immunohistochemical methods are used to identify histogenesis and the degree of differentiation of tumors.



№ 43. Fibrosarcoma. *(H.E. stain).*

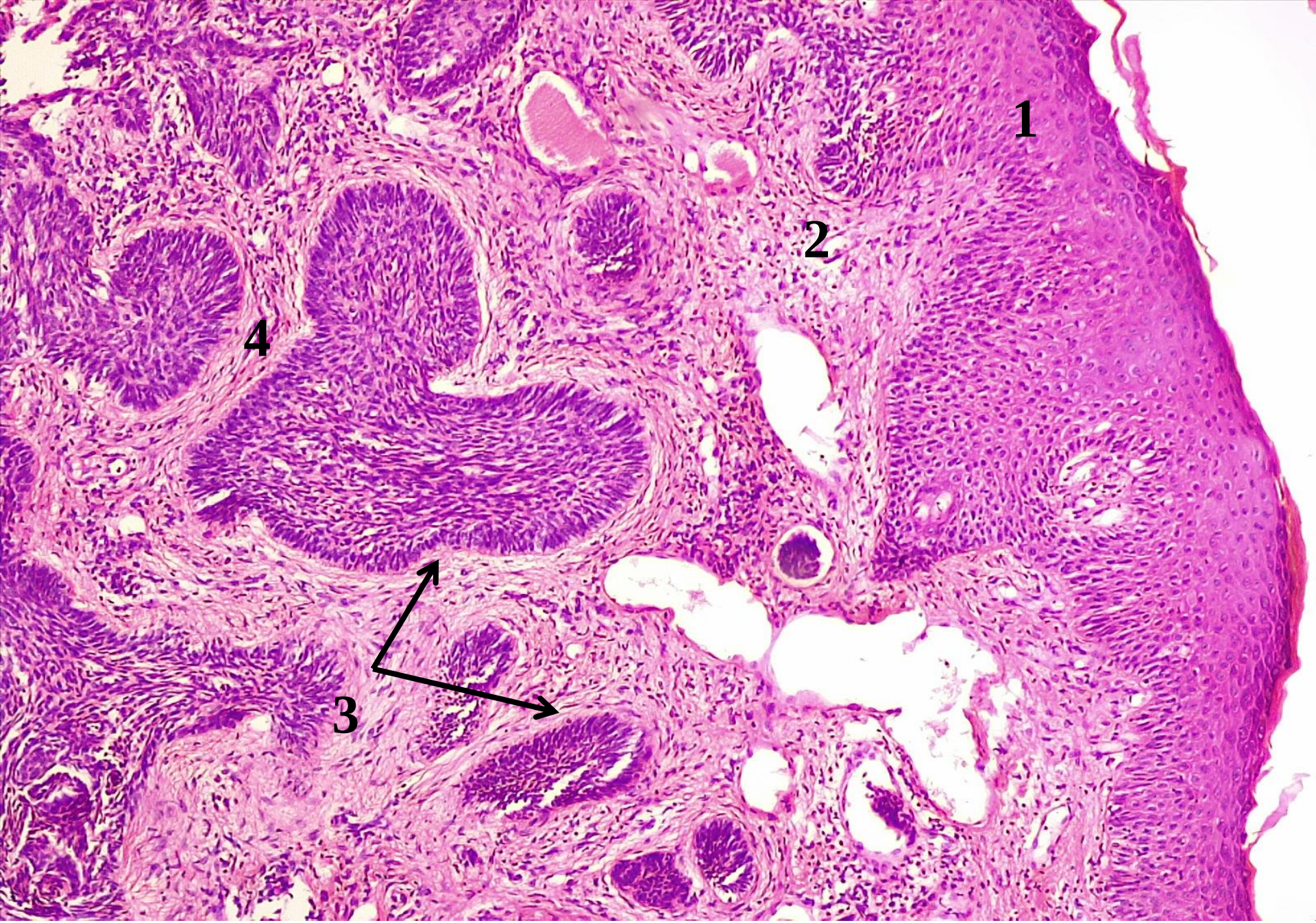
№ 142. Basal cell carcinoma. *(H.E. stain).*

Indications:

1.Epidermis.
2.Dermis.
3.Nests of malignant tumoral cells (resembling with basal layer cells of the epidermis).
4.Connective tissue stroma.

In the microspecimen, under the epidermis, there are solid, compact, round, oval or irregular tumor nests / islands, made up of tumor cells, reminiscent of normal cells of the basal layer of the epidermis, most are fusiform, with hyperchromic nuclei, little cytoplasm, colored basophil; the cells on the periphery of the islands are arranged "in a palisade", parallel to each other and perpendicular to the surrounding stroma; the stroma has a mixoid appearance, with moderate lympho-plasmatic infiltration; epidermis with foci of hyperplasia of the malpighian layer (acanthosis).

Basal cell carcinoma is the most common malignant tumor of the skin. It develops on areas chronically exposed to the sun, especially in people with light skin. It is located mainly on the face, above the line between the corner of the mouth and the earlobe (90%). It is not found on the mucous membranes. It is characterized by slow growth, with local invasion and destruction, recurrence, but extremely rarely metastasizes (less than 1 case per 10,000 tumors). The risk of metastasis is higher in cases of extensive tumors with deep ulceration. Macroscopically it has a pearly appearance of plaque or node of different sizes, with dilated blood vessels, hyperemia (telangiectasia), with erosion or ulceration in the center. The tumor derives from the basal layer of the epidermis, infiltrates the dermis, spreads to adjacent tissues, can invade the underlying bone. Basal cell carcinoma can be complicated by hemorrhage, secondary inflammation.



№ 142. Basal cell carcinoma. *(H.E. stain).*

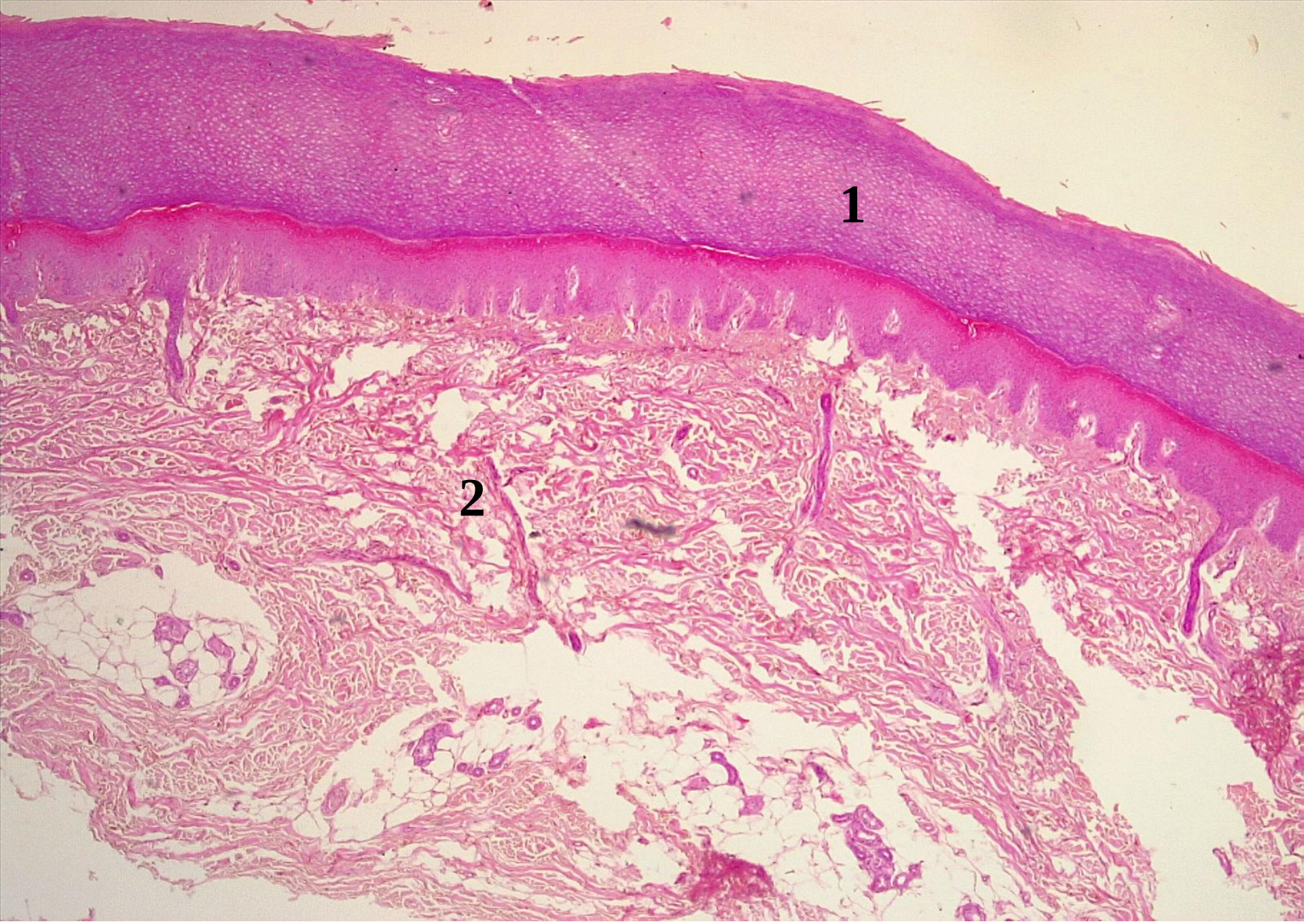
№ 159. Hyperkeratosis of the skin. *(H.E. stain).*

Indications:

1.Thickened corneous layer of epidermis (hyperkeratosis).
2.Dermis.

The stratum corneum of the epidermis is considerably thickened, with masses of keratin, sometimes lamellar in appearance, the epidermis with acanthosis.

Skin hyperkeratosis - excessive formation of keratin in the squamous cell epithelium of the skin, is found in many dermatological conditions. Macroscopically in outbreaks of hyperkeratosis, the skin is thickened, dry, looks like fish scales or welts. The most important etiological factors are chronic inflammation, viral infection, avitaminosis, especially avitaminosis A, chronic irritations, some skin development disorders. It is found in psoriasis, pemphigus, eczema, disseminated lupus erythematosus, scleroderma, actinic keratosis, in benign and malignant epidermal tumors, eg in papilloma, seborrheic keratosis, squamous cell carcinoma and a. in Greek ichtys - fish + osis - pathological process), palmar and plantar keratosis, xeroderma pigmentosum and others. High-grade generalized ichthyosis may be incompatible with life.



№ 159. Hyperkeratosis of the skin. *(H.E. stain).*

№ 75. Metastases of melanoma into liver.

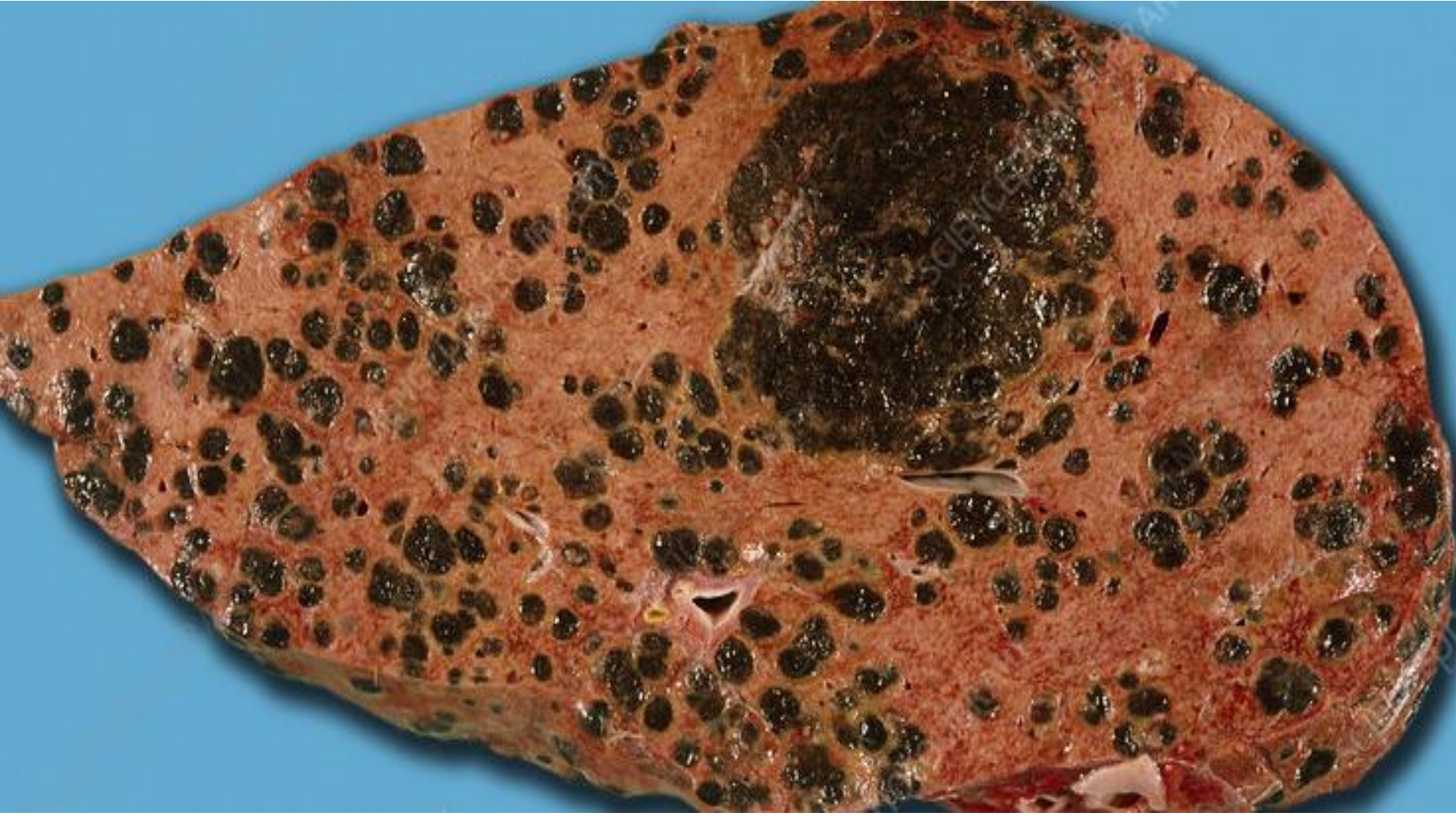
The liver is enlarged in size, on the section and under the capsule there are multiple tumor nodules with a diameter from 0.5-1 to a few cm, round or oval, well delimited, brown-black color, liver parenchyma between nodules with signs of steatosis.

Melanoma is a malignant tumor of melanocytic origin, which is found in the skin, in the oral mucosa, anorectal, esophagus, meninges, or eyeball. It is extremely aggressive, a tumor with a thickness of only a few mm can produce multiple metastases. Lymphogen metastases in regional lymph nodes, and more frequently hematogenously in the liver, lungs, brain and other organs, can be metastases in virtually any region of the body. In most cases the metastases are black due to the melanin content.

№ 251. Papiloma of the skin.

On the skin there is a spherical tumor node, with a wide base, the surface is nippled liked (reminds of cauliflower or raspberry), ~ 1 cm in diameter.

Skin papilloma is a benign epidermal tumor that develops from the squamous cell epithelium. The clinical manifestations and the evolution depends on the location, it can be complicated with exulcerations and secondary inflammation. Papillomas can be single or multiple (papillomatosis). Sometimes they recur after removal. In cases of prolonged mechanical excitation, the papilloma may become malignant.



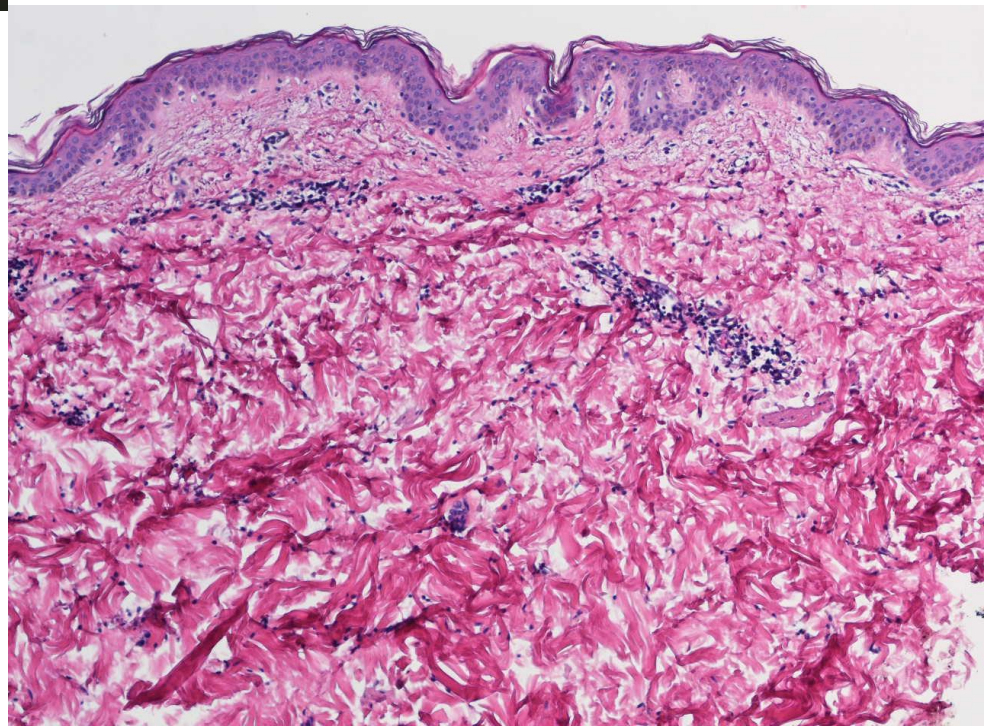
№ 75. Metastases of melanoma into liver.

№ 251. Papiloma of the skin.

Skin hyperkeratosis.

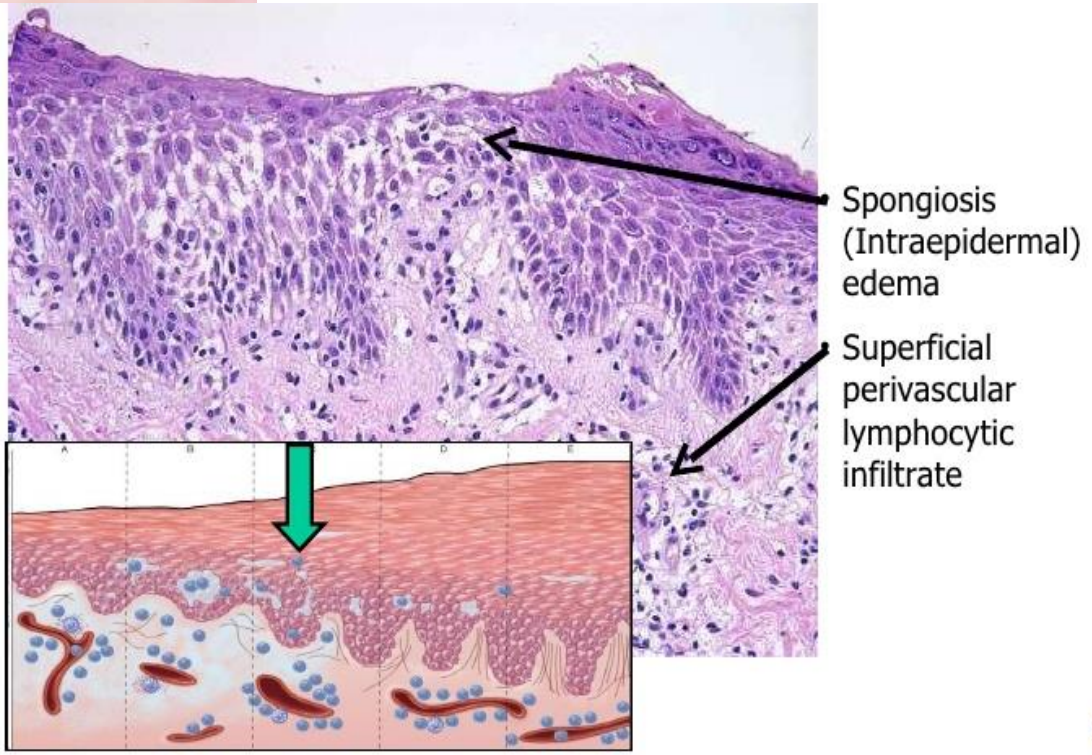
Acute inflammatory dermatoses.

Urticaria.



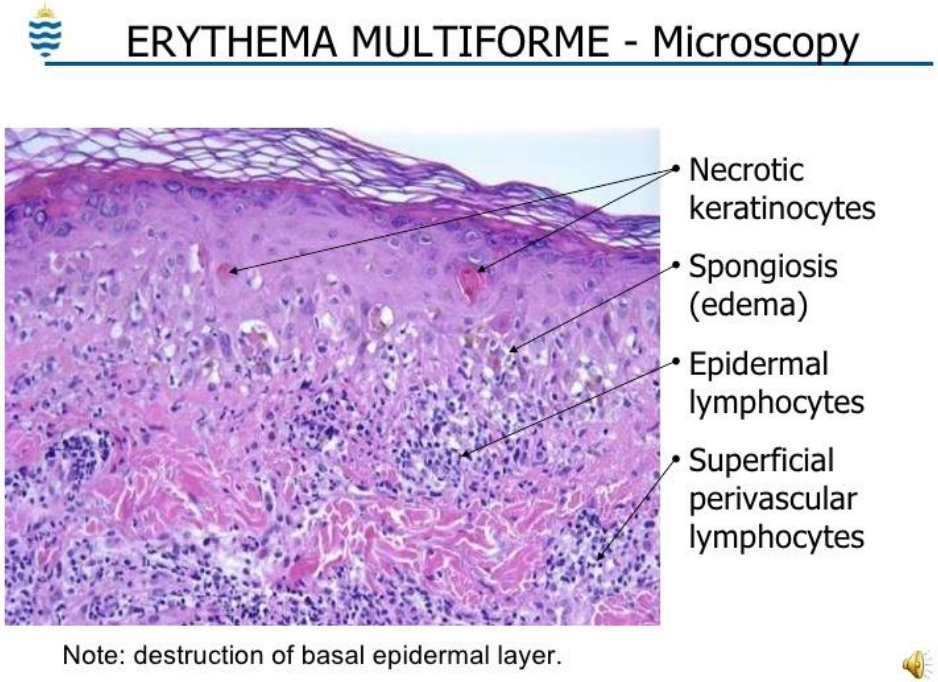
Acute inflammatory dermatoses.

Eczema.



Acute inflammatory dermatoses.

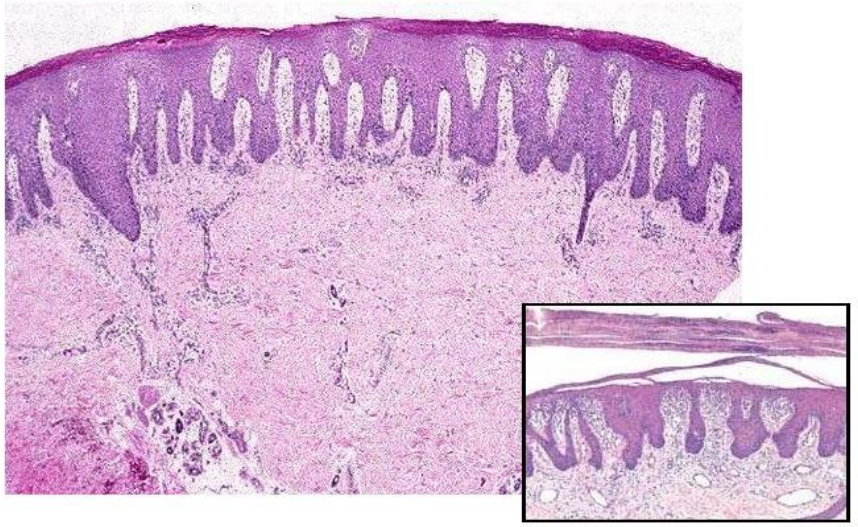
Erythema multiforme.



Acute inflammatory dermatoses.

Psoriasis.

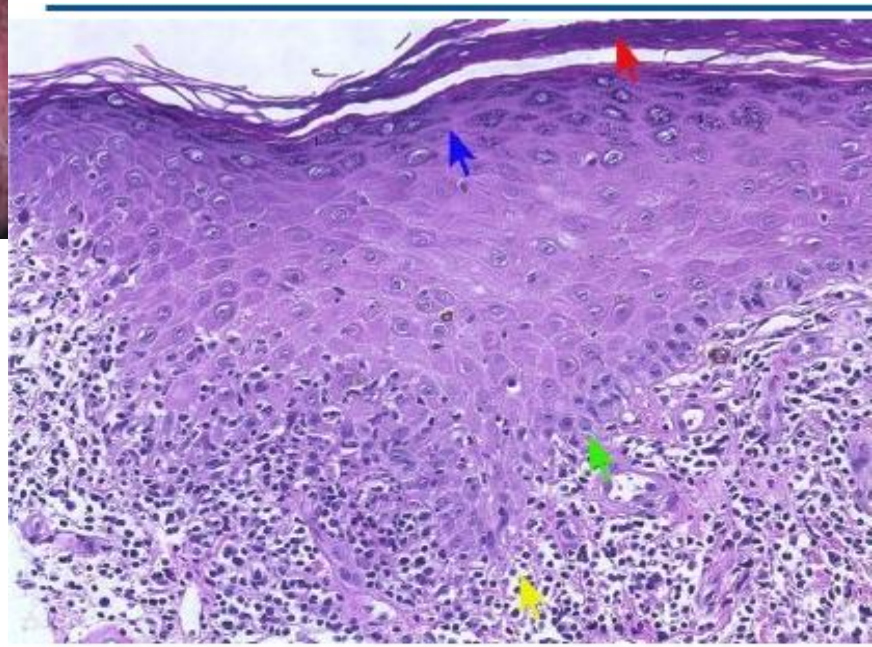
Psoriasis: Histopathology



Acanthosis, Parakeratosis, neutrophilic microabscesses.

Chronic inflammatory dermatoses.

Lichen planus.



Hyperkeratosis

Thickened granular layer

Jagged outline of epidermis

Lymphocytes obscuring the dermal-epidermal infiltrate

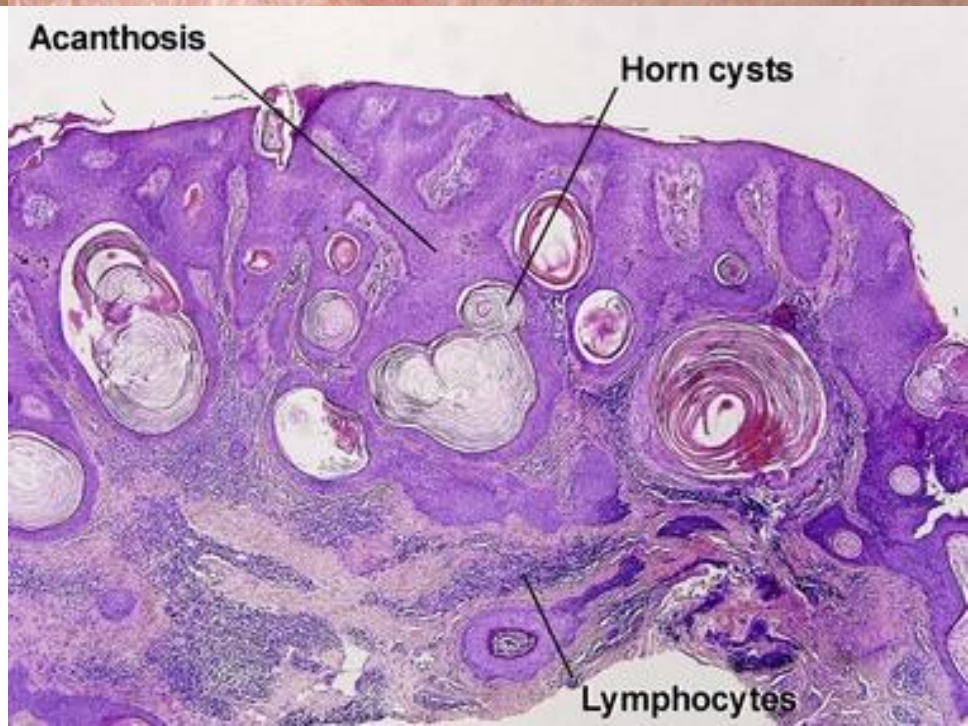
Bullous dermatoses.

Pemphigus vulgaris.

Suprabasal acantholytic cleavage.

Benign tumors and premalignant epithelial lesions.

Seborrheic keratosis.

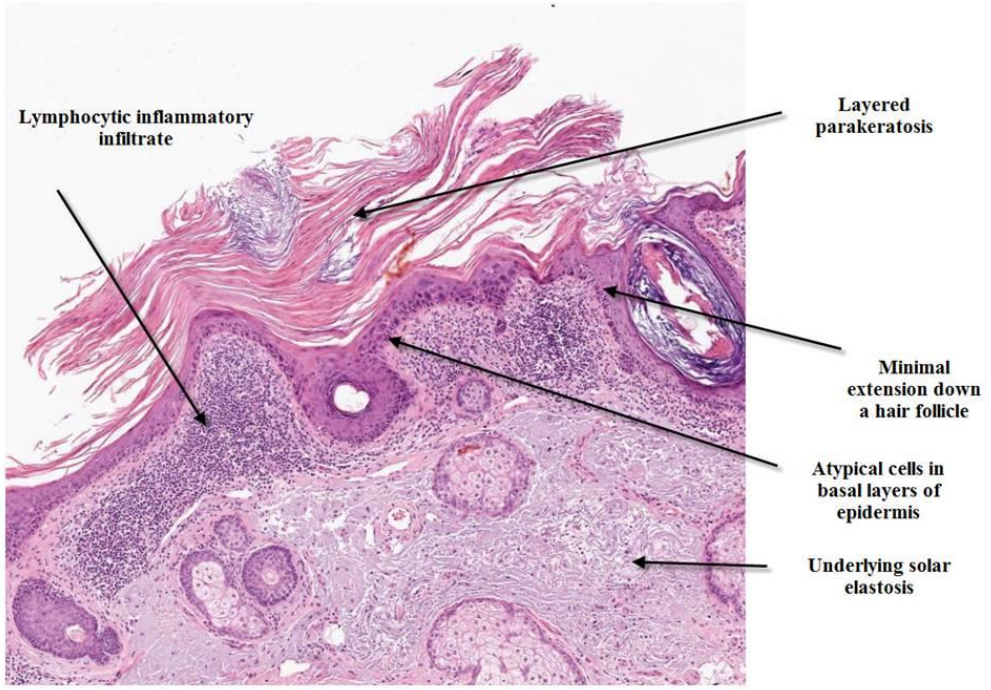


Benign tumors and premalignant epithelial lesions.

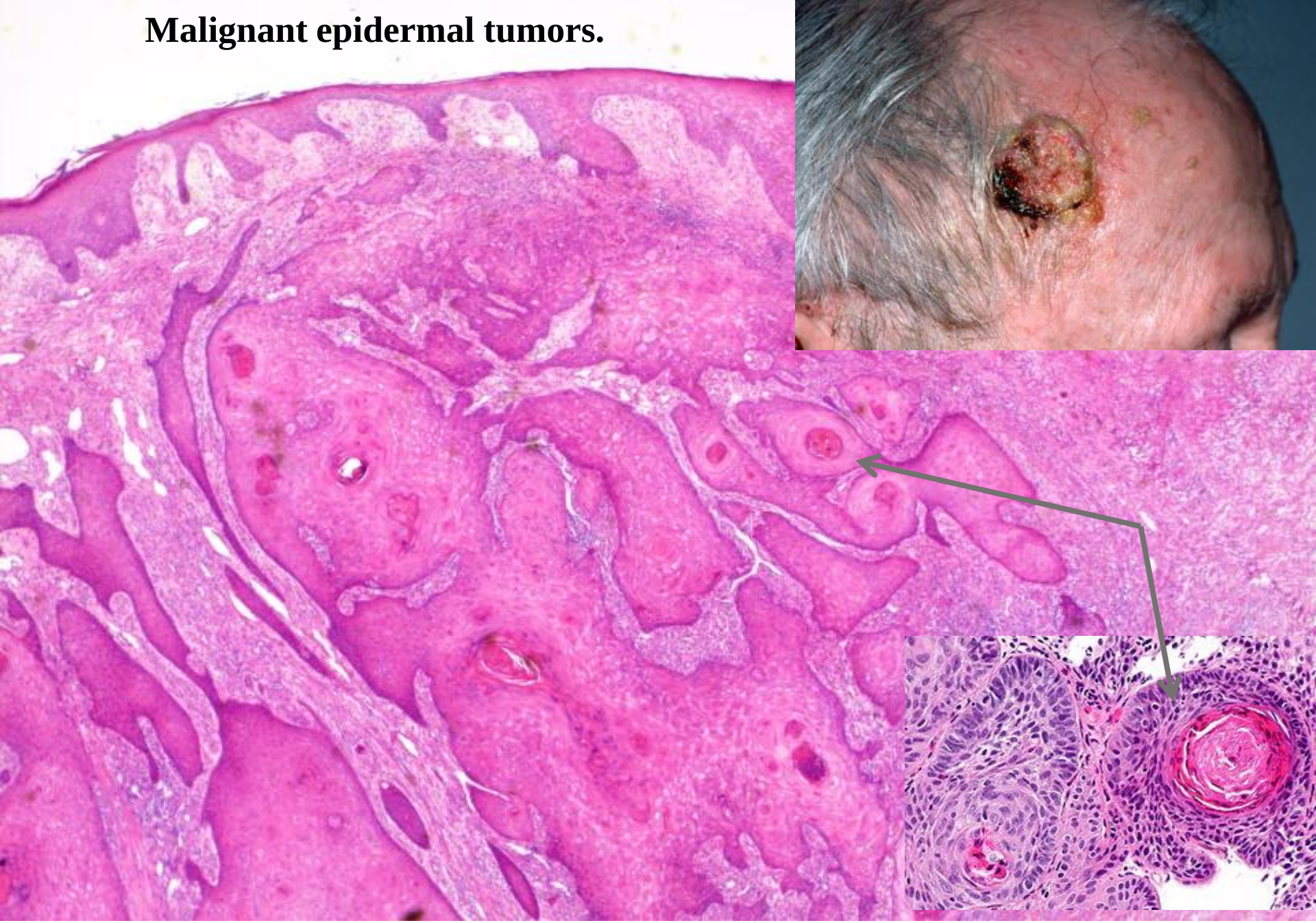
Keratoacanthoma.

Benign tumors and premalignant epithelial lesions.

Actinic keratosis.



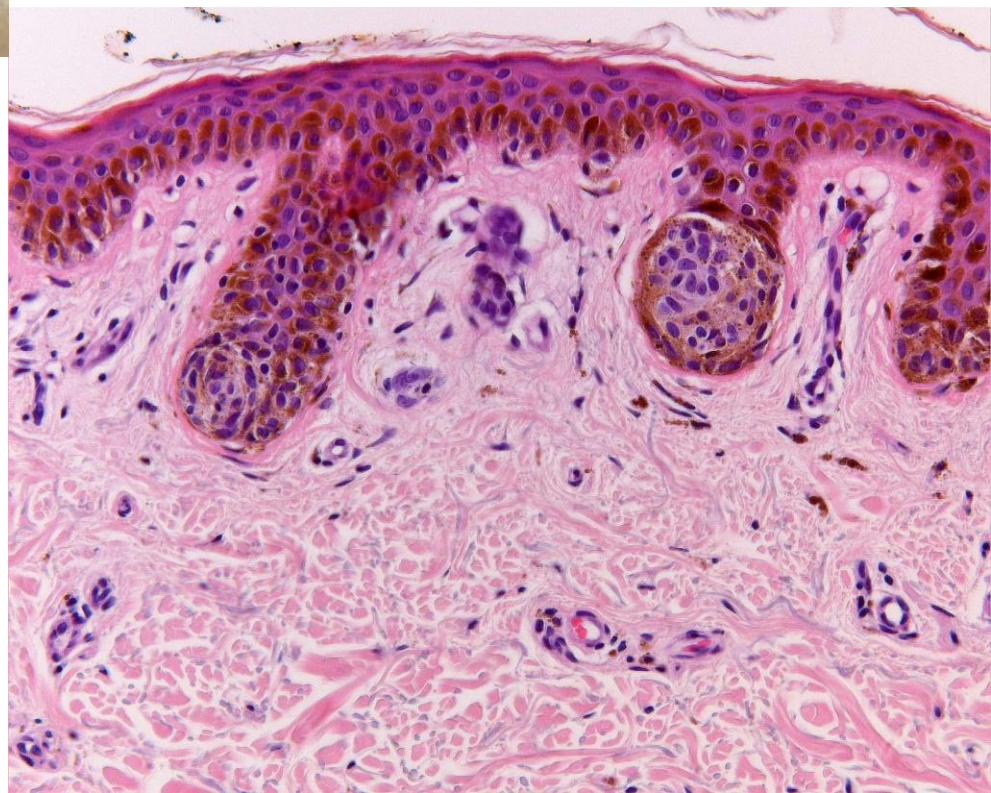
Malignant epidermal tumors.

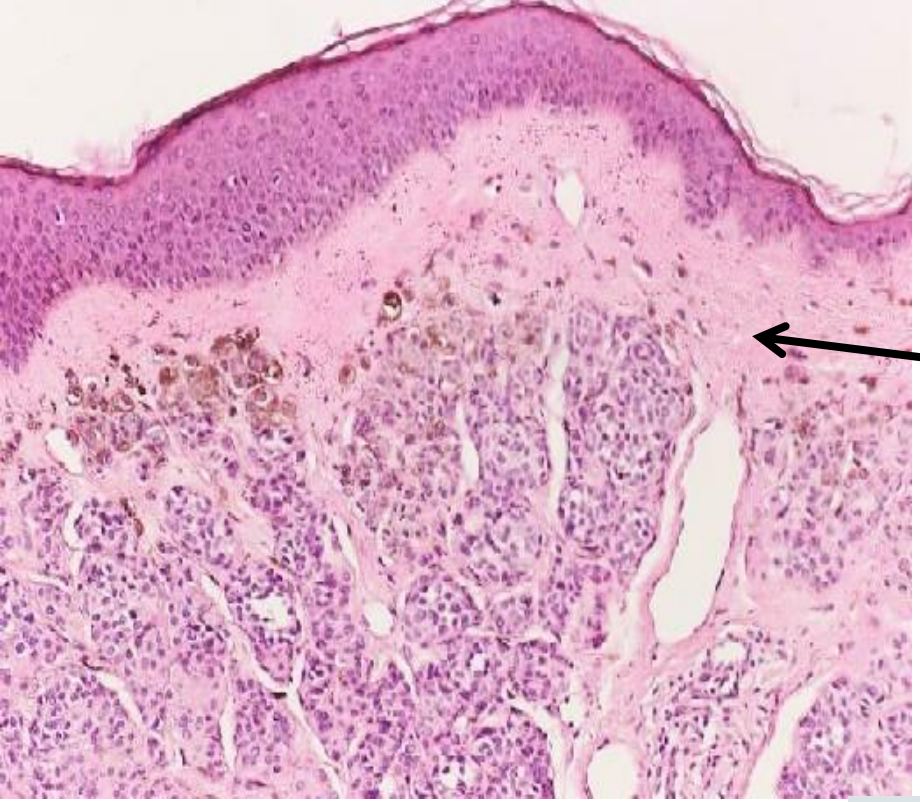


Keratinizing squamous cell carcinoma. *(H-E stain).*

Melanocytic proliferations.

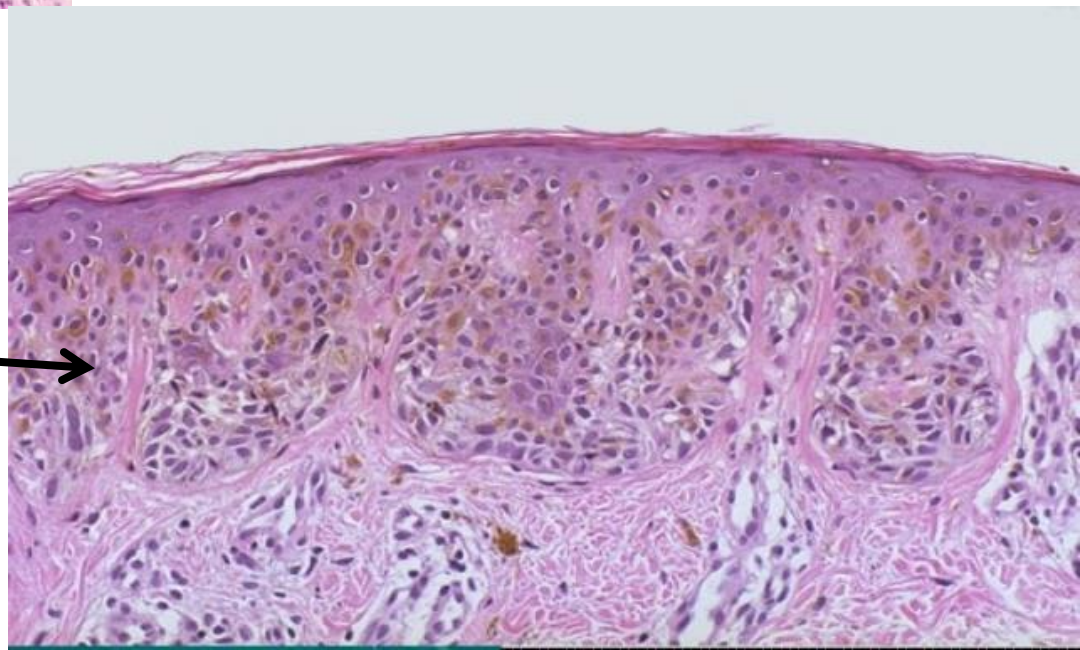
Junctional nevus.



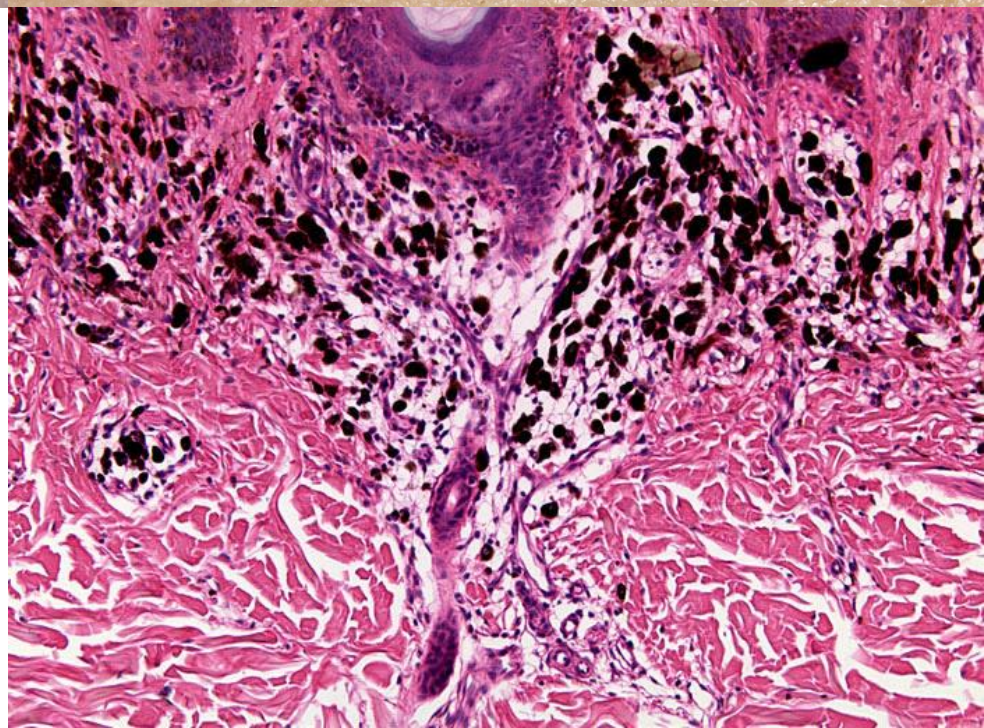


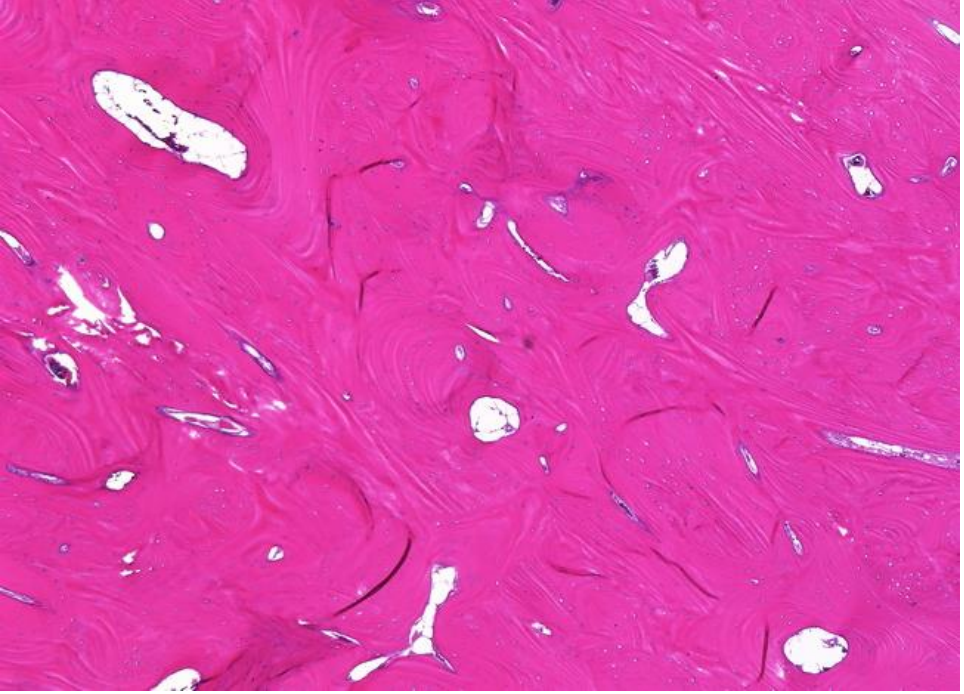
Intradermal nevus.

Compound nevus (mixed).



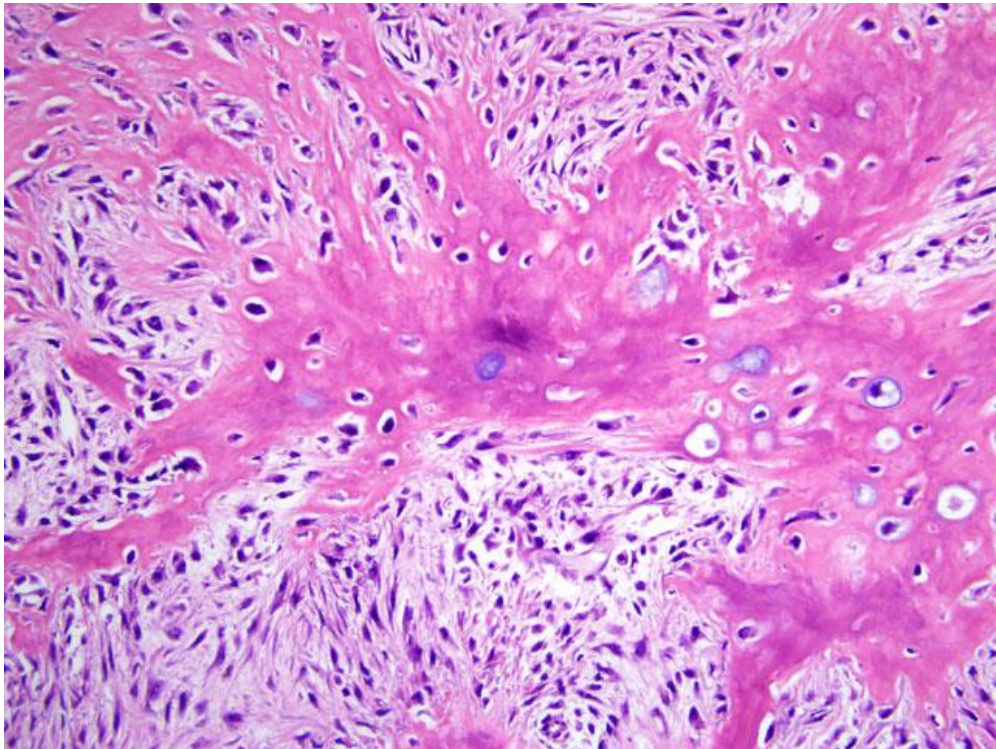
Melanoma.

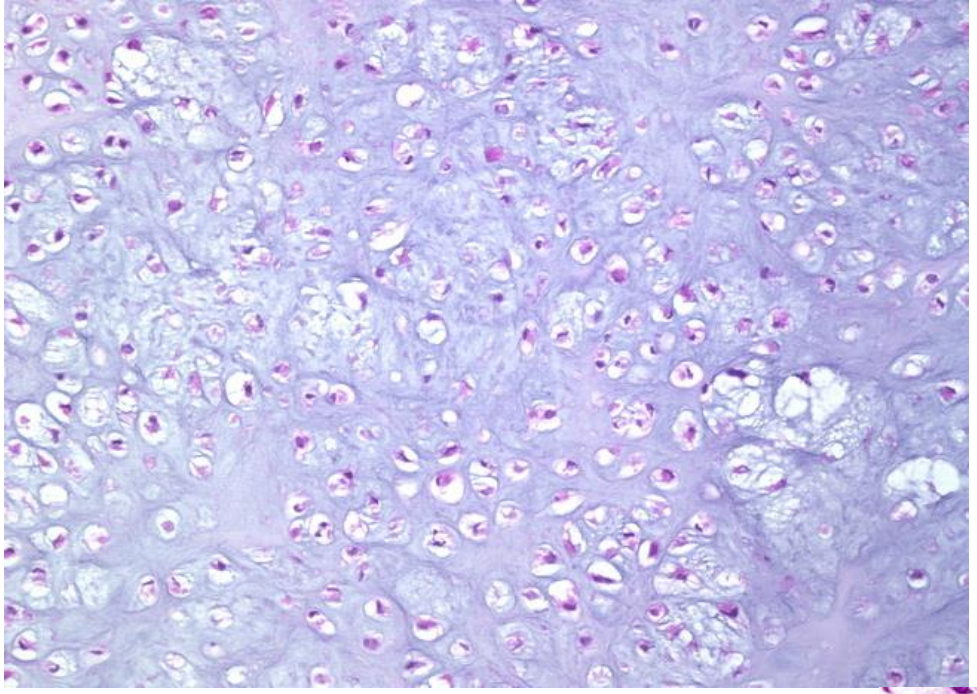




Osteosarcoma.

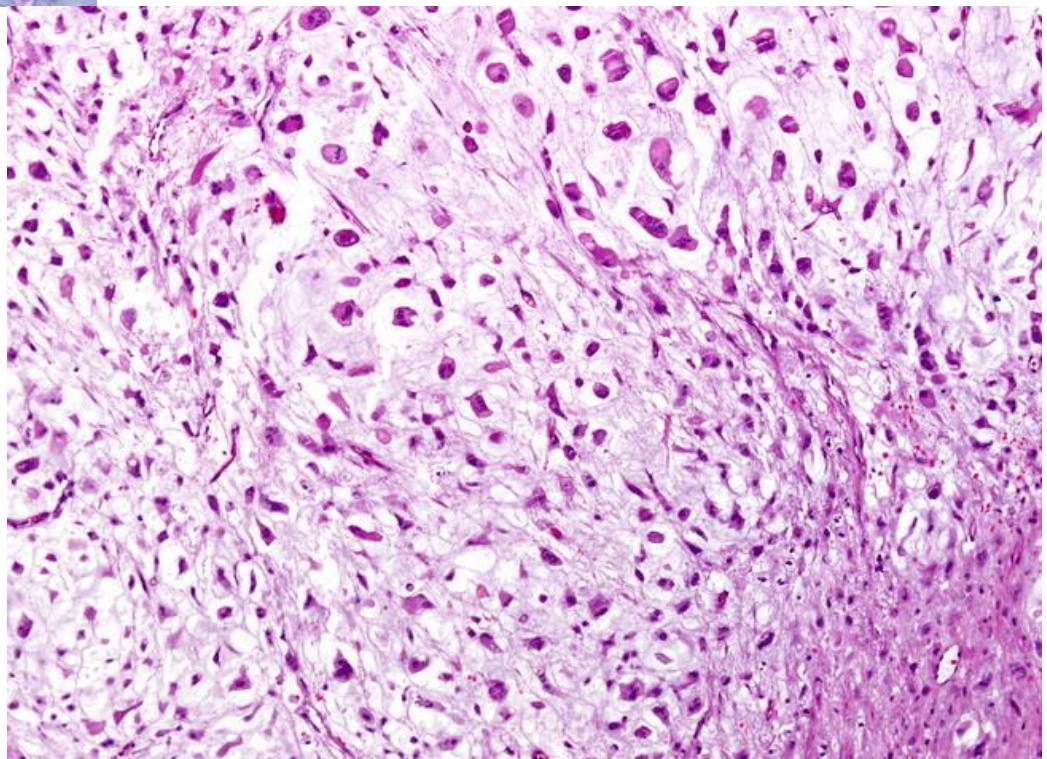
Osteoid osteoma.

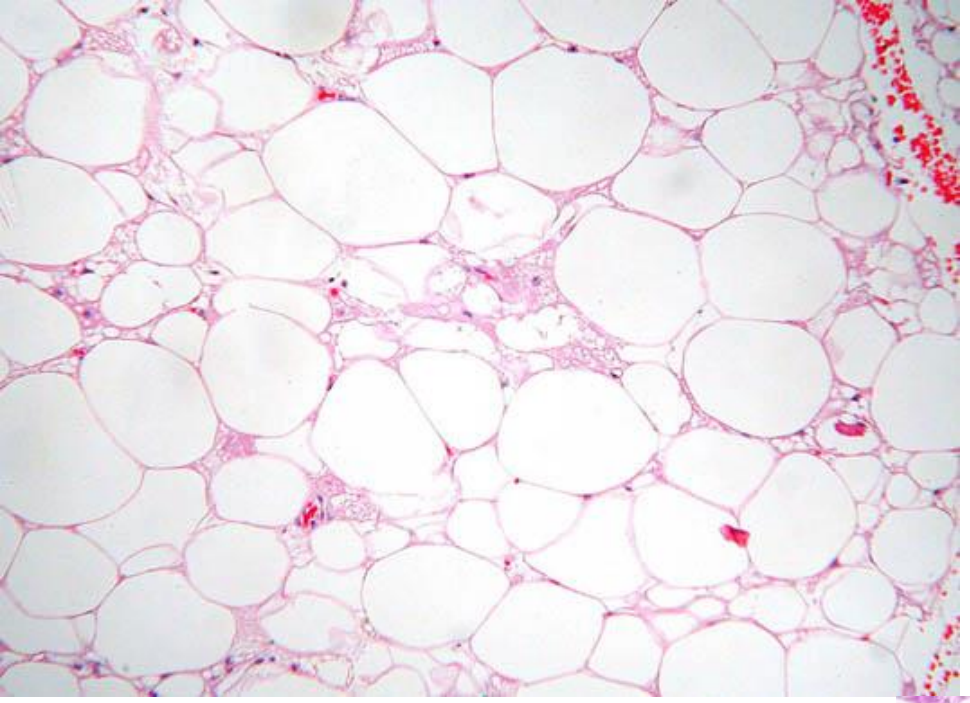




Chondrosarcoma.

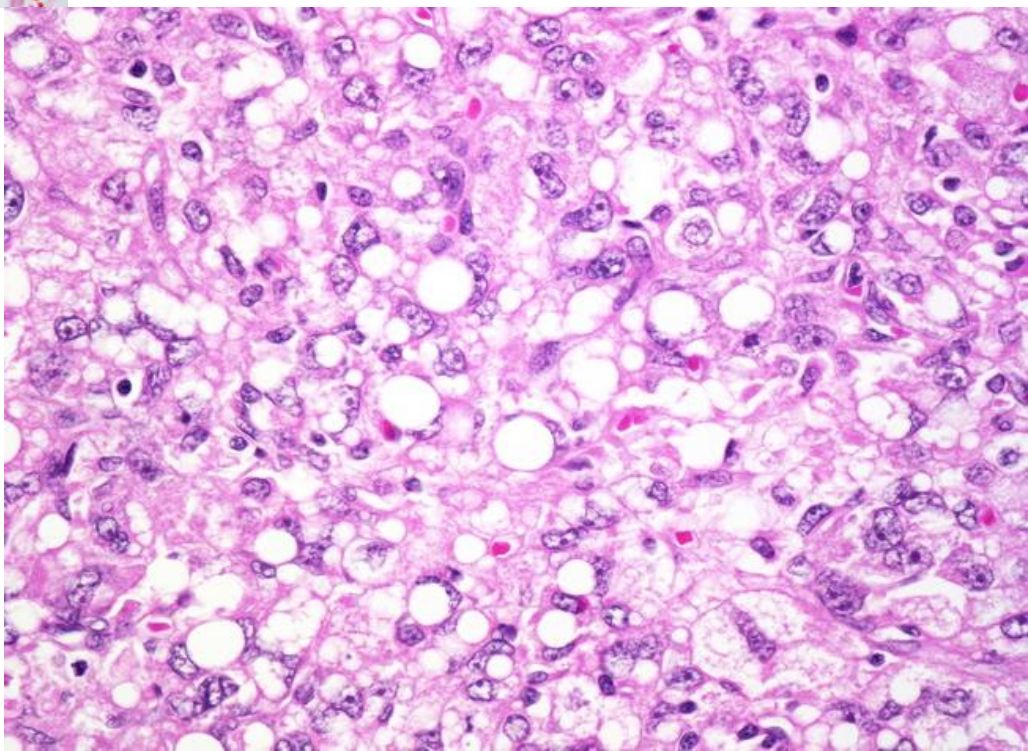
Chondroma.

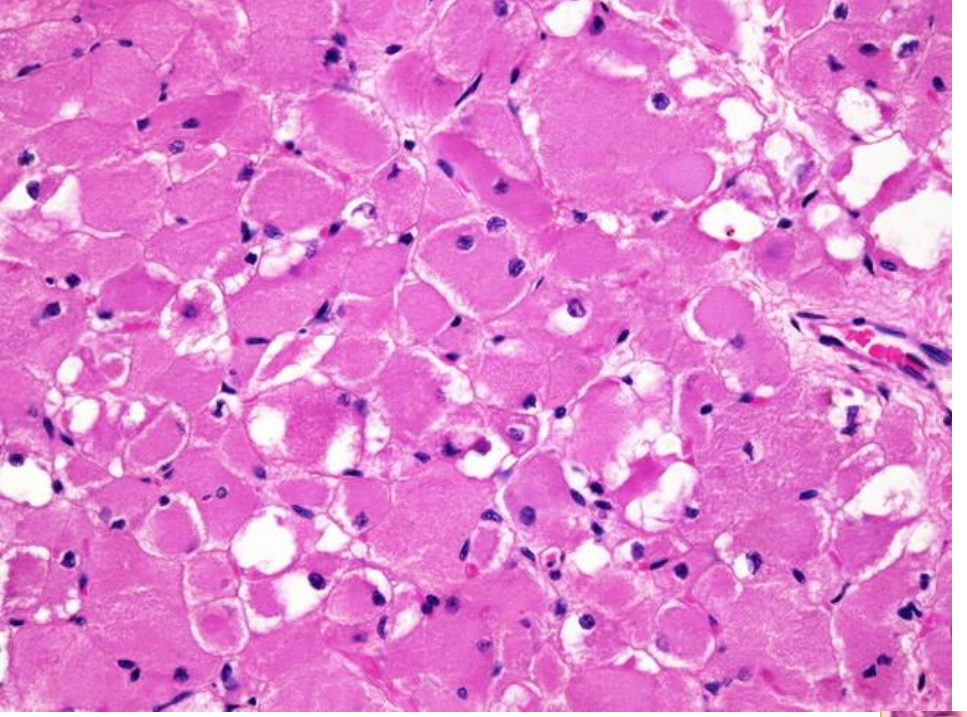




Pleomorphic liposarcoma.

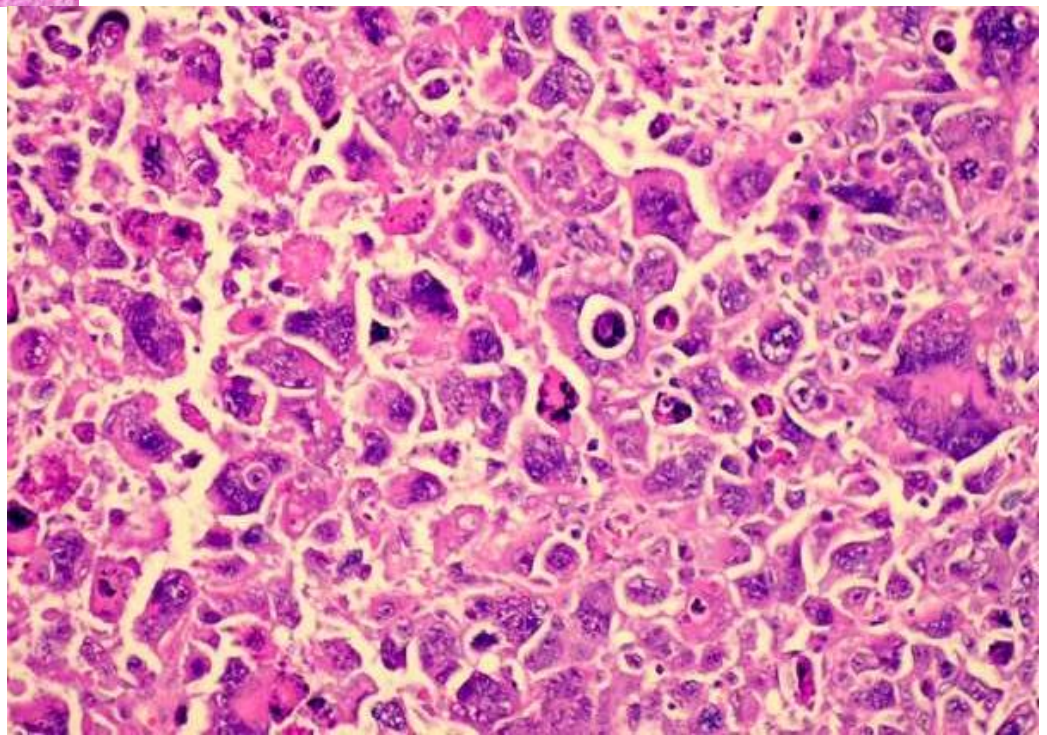
Lipoma.

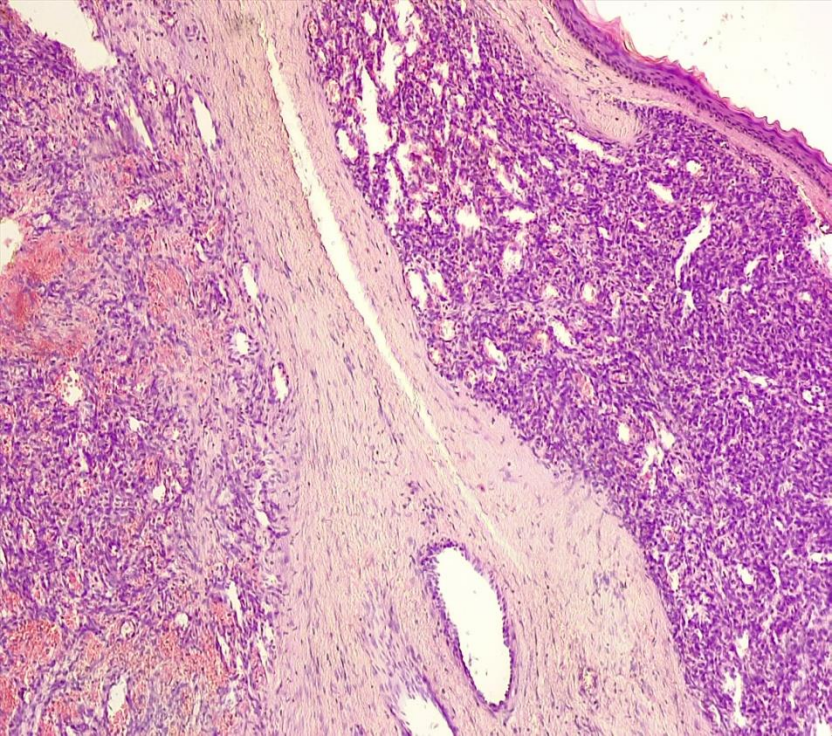




Pleomorphic rhabdomyosarcoma.

Rhabdomyoma.





Capillary hemangioma.

NORMAL

Skin
Skin, epidermis
Skin, epidermis, keratinocytes, stratum basale (germinativum)
Skin, epidermis, keratinocytes, stratum spinosum (prickle cells)
Skin, epidermis, keratinocytes, stratum granulosum
Skin, epidermis, keratinocytes, stratum lucidum
Skin, epidermis, keratinocytes, stratum corneum, thin skin
Skin, epidermis, keratinocytes, stratum corneum, thick skin
Skin, epidermis, melanocytes
Skin, epidermis, Langerhans cells
Skin, epidermis, Merkel cells
Skin, epidermis, appendage(s)
Skin, epidermis, appendage, hair follicle
Skin, epidermis, appendage, hair follicle, shaft
Skin, epidermis, appendage, hair follicle, sebaceous gland
Skin, epidermis, appendage, sweat gland, eccrine
Skin, epidermis, appendage, sweat gland, apocrine
Skin, basement membrane
Skin, dermis
Skin, dermis, papillary
Skin, dermis, reticular
Skin, hypodermis (sub-cutis, pannus)

A

B

N

O

R

M

A

L

Macroscopic
Macroscopic, macule
Macroscopic, patch
Macroscopic, papule
Macroscopic, nodule
Macroscopic, plaque
Macroscopic, vesicle
Macroscopic, bulla
Macroscopic, blister
Macroscopic, pustule
Macroscopic, wheal
Macroscopic, scale
Macroscopic, lichenification
Macroscopic, excoriation
Macroscopic, onycholysis
microscopic
microscopic, hyperkeratosis
microscopic, parakeratosis
microscopic, hypergranulosis
microscopic, acanthosis
microscopic, papillomatosis
microscopic, acantholysis
microscopic, spongiosis
microscopic, hydropic swelling (ballooning)
microscopic, exocytosis
microscopic, erosion
microscopic, ulceration
microscopic, vacuolization
microscopic, lentiginous

A

B

N

O

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A

L

Pigmentation disorders
Pigmentation disorders, vitiligo
Pigmentation disorders, freckle (ephelis)
Pigmentation disorders, melasma
Pigmentation disorders, lentigo
Pigmentation disorders, nevus
Pigmentation disorders, nevus, melanocytic
Pigmentation disorders, nevus, dysplastic
Pigmentation disorders, malignant melanoma
Epidermal neoplasms
Epidermal neoplasms, benign
Epidermal neoplasms, benign, seborrheic keratosis
Epidermal neoplasms, benign, acanthosis nigricans
Epidermal neoplasms, benign, fibroepithelial polyp (skin tag)
Epidermal neoplasms, benign, epithelial inclusion cyst (wen)
Epidermal neoplasms, benign, appendage tumors
Epidermal neoplasms, benign, keratoacanthoma
Epidermal neoplasms, malignant, actinic keratosis
Epidermal neoplasms, malignant, squamous cell carcinoma (SCC)
Epidermal neoplasms, malignant, basal cell carcinoma (BCC)
Epidermal neoplasms, malignant, Merkel cell tumor
Dermal neoplasms
Dermal neoplasms, fibrous histiocytoma (dermatofibroma)
Dermal neoplasms, dermatofibrosarcoma protuberans
Dermal neoplasms, xanthomas
Dermal neoplasms, vascular tumors
Tumors of cellular “immigrants”, Langerhans cells
Tumors of cellular “immigrants”, t- cell lymphomas (Mycosis Fungoides)
Tumors of cellular “immigrants”, mast cells

A

B

N

O

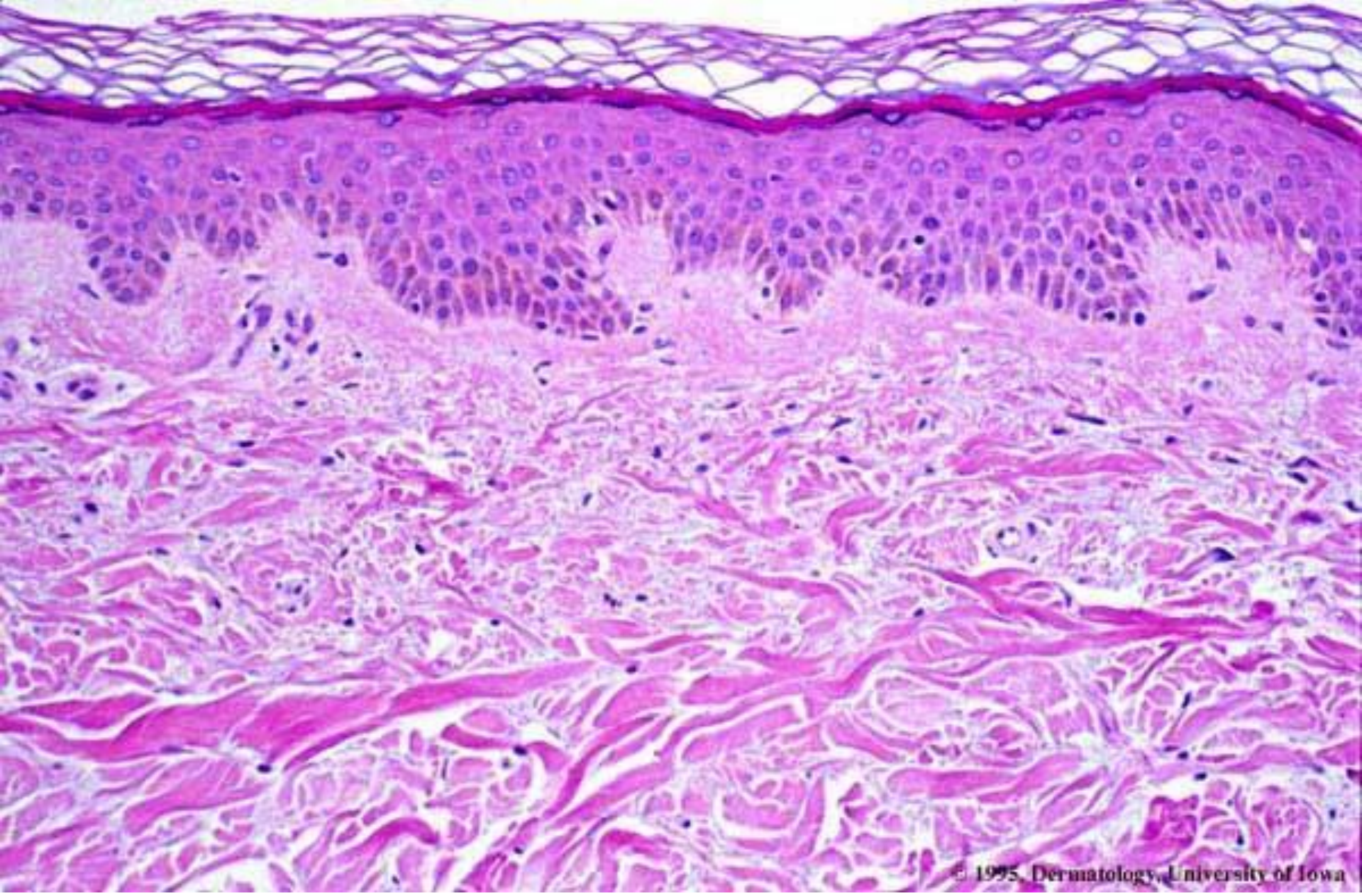
R

M

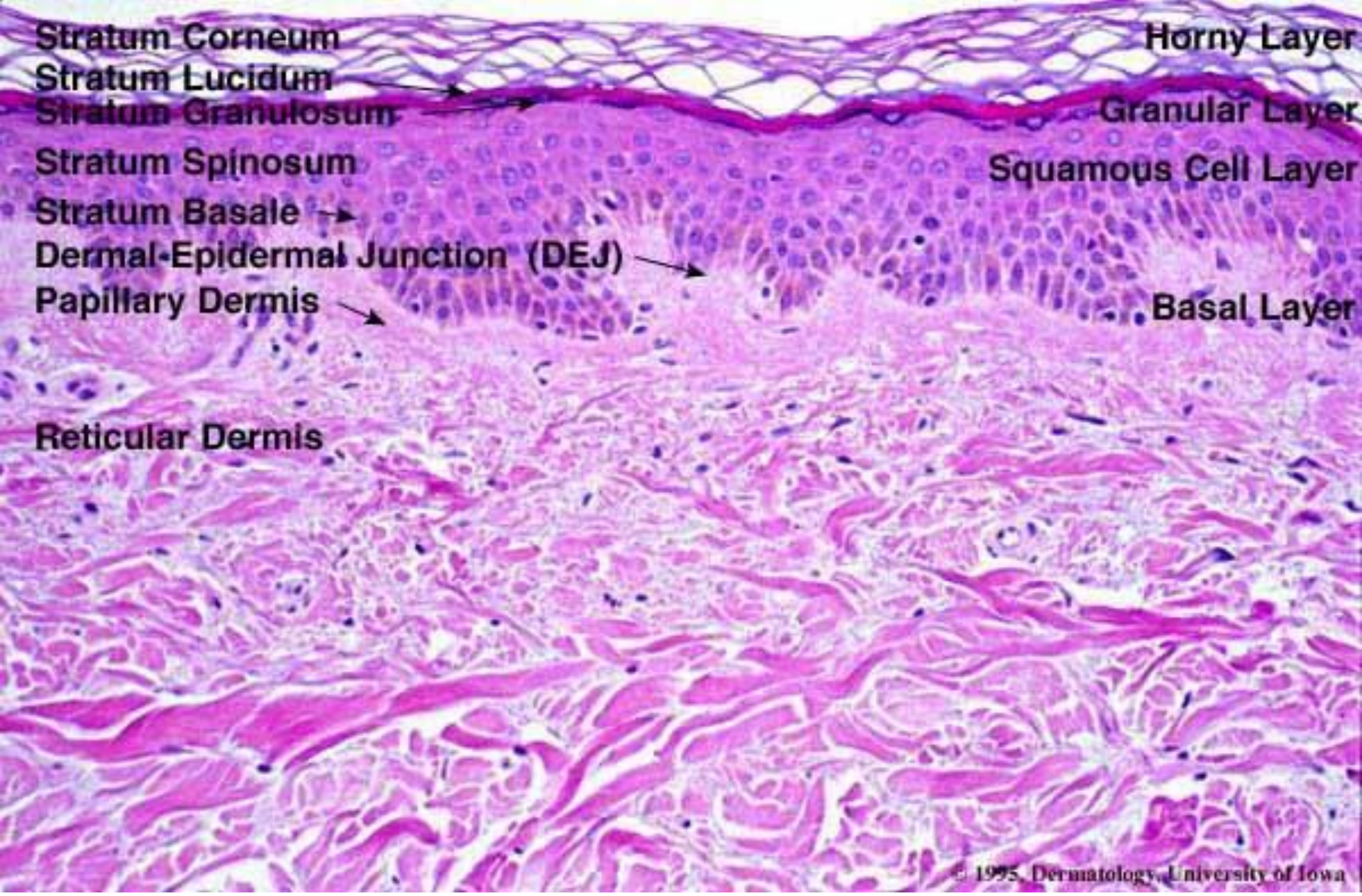
A

L

Epidermis, maturation disorder, ichthyosis
Epidermis/Dermis, inflammation, acute
Epidermis/Dermis, inflammation, acute, urticaria
Epidermis/Dermis, inflammation, acute, eczema
Epidermis/Dermis, inflammation, acute, erythema multiforme
Epidermis/Dermis, inflammation, chronic
Epidermis/Dermis, inflammation, chronic, psoriasis
Epidermis/Dermis, inflammation, chronic, seborrheic dermatitis
Epidermis/Dermis, inflammation, chronic, lichen planus
Epidermis/Dermis, inflammation, chronic, lupus erythematosus
Epidermis/Dermis, infection/infestation
Epidermis/Dermis, infection/infestation, (verrucae)
Epidermis/Dermis, infection/infestation, molluscum contagiosum
Epidermis/Dermis, infection/infestation, impetigo
Epidermis/Dermis, infection/infestation, fungus
Epidermis/Dermis, infection/infestation, arthropods
Epidermis/Dermis, infection/infestation, arthropods, bites
Epidermis/Dermis, infection/infestation, arthropods, stings
Epidermis/Dermis, infection/infestation, arthropods, infestations
Epidermis/Dermis, bullae (blisters)
Epidermis/Dermis, bullae, pemphigus
Epidermis/Dermis, bullae, bullous pemphigoid
Epidermis/Dermis, bullae, dermatitis herpetiformis
Epidermis/Dermis, bullae, epidermolysis bullosa
Epidermis/Dermis, bullae, porphyria
Epidermis/Dermis, adnexae (appendages), acne vulgaris
Hypodermis (pannus), inflammation (panniculitis)
Hypodermis (pannus), inflammation, erythema nodosum
Hypodermis (pannus), inflammation, erythema induratum

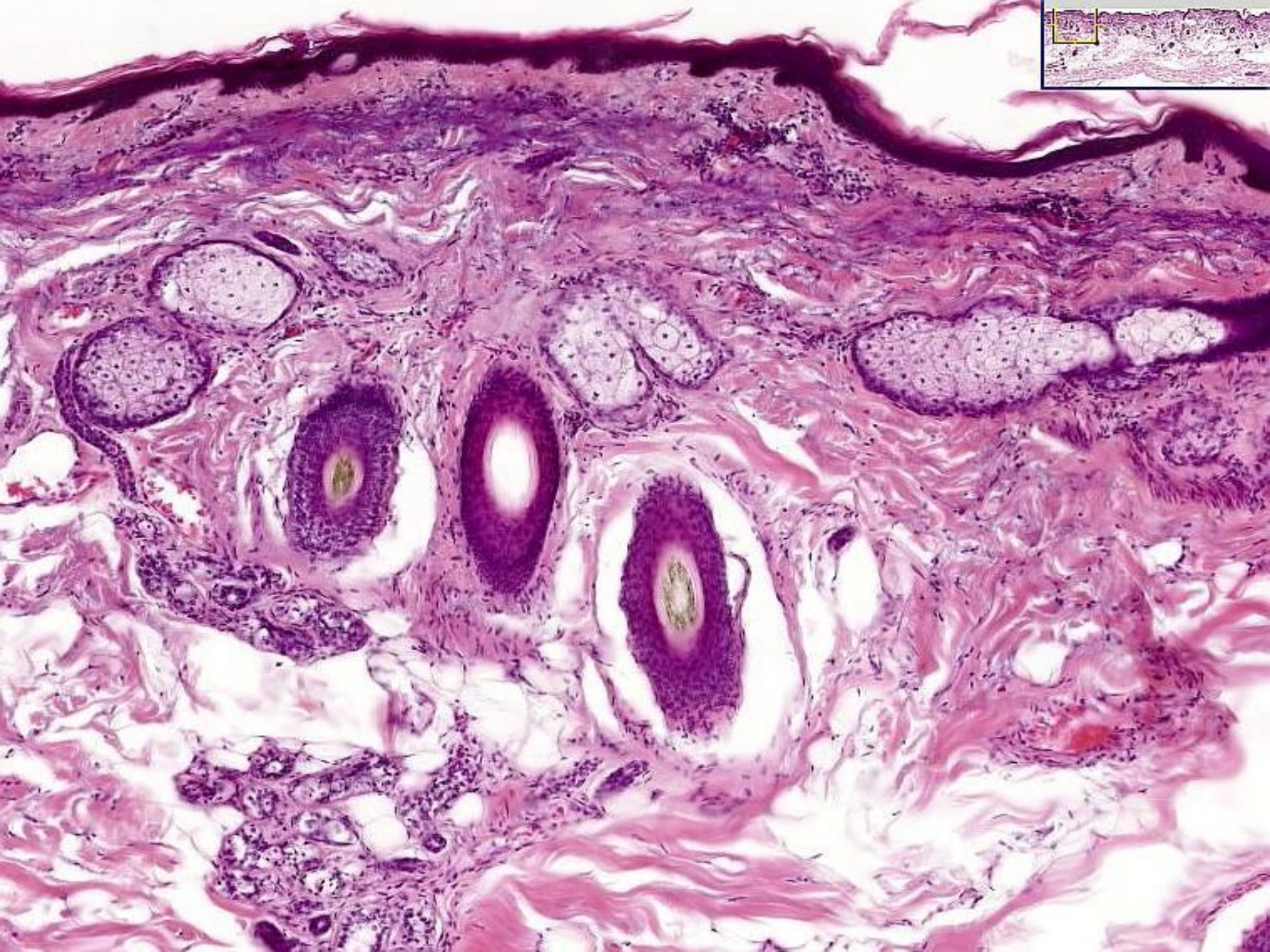


NORMAL SKIN



NORMAL SKIN, with labels


© 1995, Dermatology, University of Iowa



MACRO-scopic (clinical) TERMS

- **macule**
- **patch**
- **papule**
- **nodule**
- **plaque**
- **vesicle**
- **bulla**
- **blister**
- **pustule**
- **wheal**
- **scale**
- **lichenification**
- **excoriation**
- **onycholysis**

MACROSCOPIC TERMS

Macule: Circumscribed lesion of <5 mm in diameter characterized by **flatness** and usually discolored (often red)

Patch: Circumscribed lesion of >5 mm in diameter characterized by **flatness** and usually discolored (often red)

Papule: Elevated dome-shaped or flat-topped lesion <5 mm across.

Nodule: Elevated lesion with spherical contour >5 mm across.

Plaque: Elevated flat-topped lesion, usually >5 mm across (may be caused by coalescent papules).

Vesicle: Fluid-filled raised lesion <5 mm across.

Bulla: Fluid-filled raised lesion >5 mm across.

Blister: Common term used for vesicle or bulla.

Pustule: Discrete, pus-filled, raised lesion.

Wheal: Itchy, transient, elevated lesion with variable blanching and erythema formed as the result of dermal edema.

Scale: Dry, horny, plate-like excrescence; usually the result of imperfect cornification (i.e., keratinization).

Lichenification: Thickened and rough skin characterized by prominent skin markings; usually the result of repeated rubbing in susceptible persons.

Excoriation: Traumatic lesion characterized by breakage of the epidermis, causing a raw linear area (i.e., a deep scratch)

Onycholysis: Separation of nail plate from nail bed.

micro-scopic (histologic) TERMS

- hyperkeratosis
- parakeratosis
- hypergranulosis
- acanthosis
- papillomatosis
- acantholysis
- spongiosis
- hydropic swelling (ballooning)
- exocytosis
- erosion
- ulceration
- vacuolization
- lentiginous

MICROSCOPIC TERMS

Hyperkeratosis: Thickening of the stratum corneum, often associated with a qualitative abnormality of the keratin.

Parakeratosis: Modes of keratinization characterized by the retention of the nuclei in the stratum corneum. On mucous membranes, parakeratosis is normal.

Hypergranulosis: Hyperplasia of the stratum granulosum, often due to intense rubbing.

Acanthosis: Diffuse epidermal hyperplasia.

Papillomatosis: Surface elevation caused by hyperplasia and enlargement of contiguous dermal papillae.

Dyskeratosis: Abnormal keratinization occurring prematurely within individual cells or groups of cells below the stratum granulosum. Generally the same as DYSPLASIA.

Acantholysis: Loss of intercellular connections resulting in loss of cohesion between keratinocytes.

Spongiosis: Intercellular edema of the epidermis.

Hydropic swelling (ballooning): Intracellular edema of keratinocytes.

Exocytosis: Infiltration of the epidermis by inflammatory or circulating blood cells.

Erosion: Discontinuity of the skin exhibiting incomplete loss of the epidermis.

Ulceration: Discontinuity of the skin exhibiting complete loss of the epidermis and often of portions of the dermis and even subcutaneous fat.

Vacuolization: Formation of vacuoles within or adjacent to cells; often refers to basal cell-basement membrane zone area.

Lentiginous: Referring to a linear pattern of melanocyte proliferation within the epidermal basal cell layer. Lentiginous melanocytic hyperplasia can occur as a reactive change or as part of a neoplasm of melanocytes.

SKIN PATHOLOGY

- DEGENERATION
- **INFLAMMATION, i.e., DERMATOSES**
- **NEOPLASMS: Epidermis, Dermis, Benign, Malignant**

SKIN PATHOLOGY

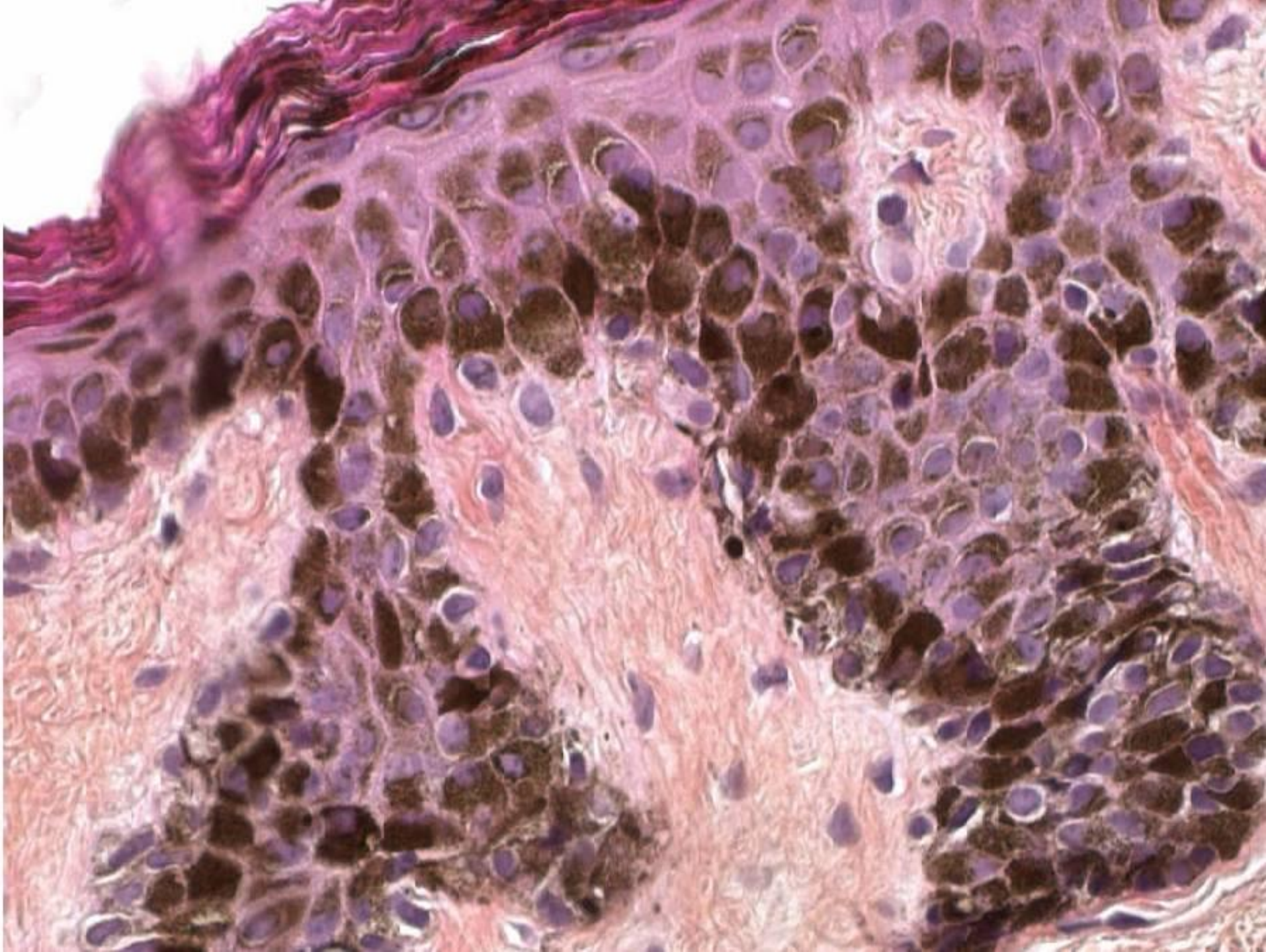
- Pigmentation
- Epidermal tumors, benign
- Epidermal tumors premalignant
- Epidermal tumors, malignant
- Dermal tumors
- “Immigrant” tumors
- Maturation disorders
- Dermatoses, acute
- Dermatoses, chronic
- Blisters (Bullae)
- Appendage (adnexal) disorders
- Panniculitis
- Infection/Infestation

PIGMENTATION DISORDERS

- **VITILIGO**
- **FRECKLE (EPHELIS)**
- **MELASMA**
- **LENTIGO**
- **NEVUS**
- **“DYSPLASTIC” NEVUS**
- **MALIGNANT MELANOMA**

Melasma, also called “mask of pregnancy”

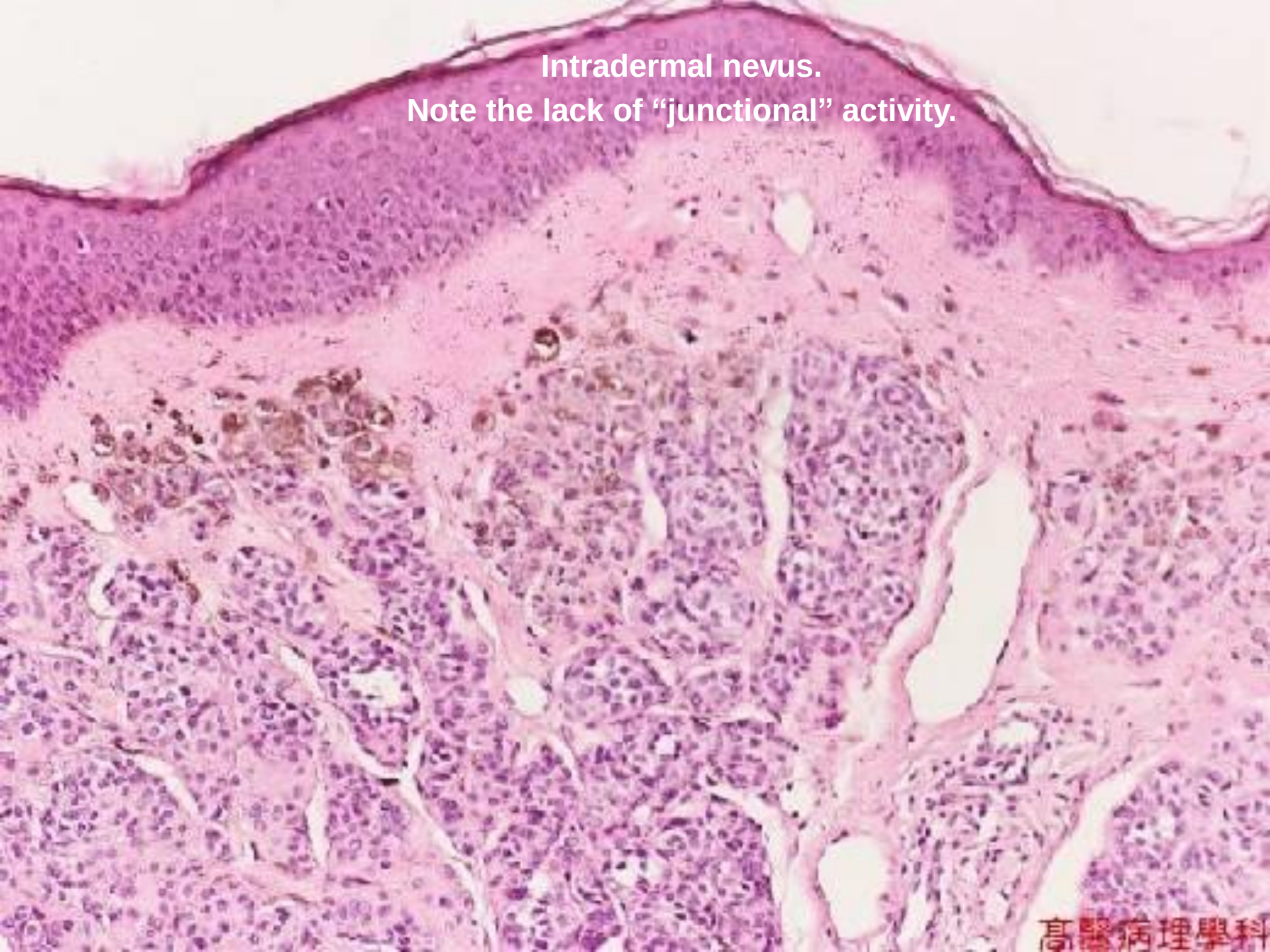
Lentigo, (plural: lentigenes), is generally considered a brown pigmented spot on the skin. It is a harmless (benign) hyperplasia of melanocytes which is linear in its spread



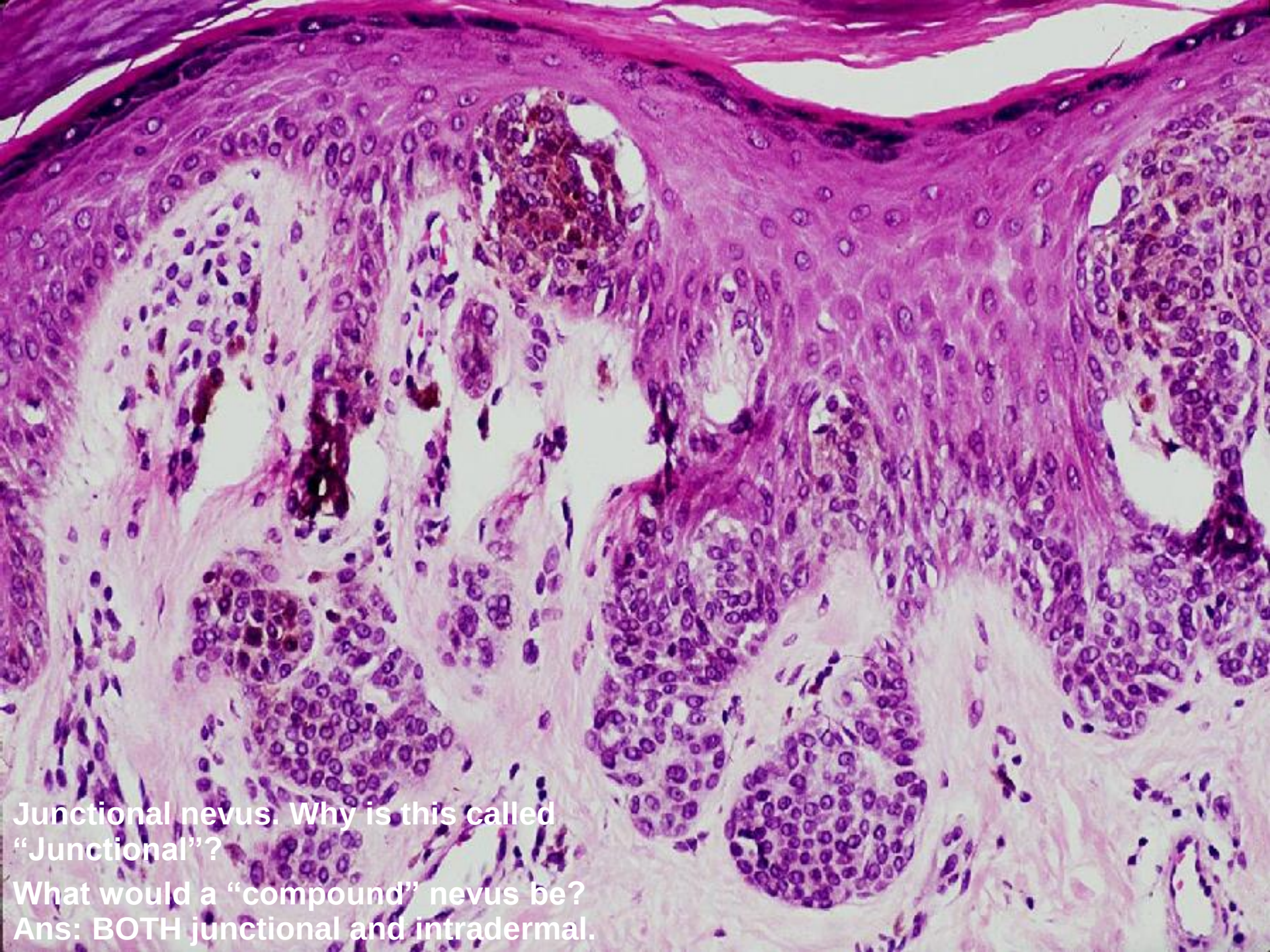
NEVI

- Many, many adjectives and classifications.
- The MAIN things to differentiate from melanomas

- **Junctional (more pigmented, more closely associated with melanoma)**
- **Intradermal**
- **Compound (both)**


Intradermal nevus.
Note the lack of “junctional” activity.
高醫病理學科


Junctional nevus

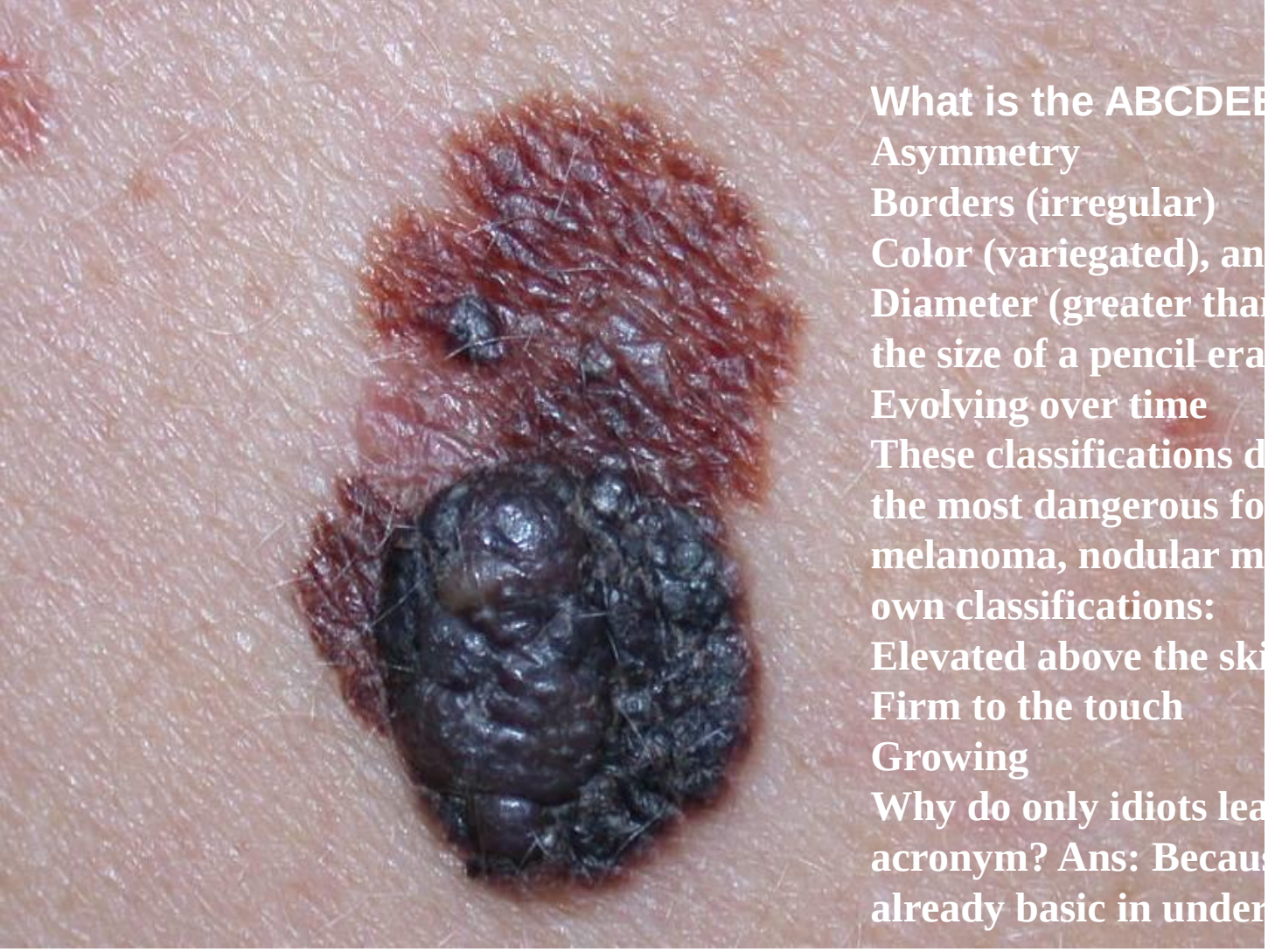


Junctional nevus. Why is this called "Junctional"?

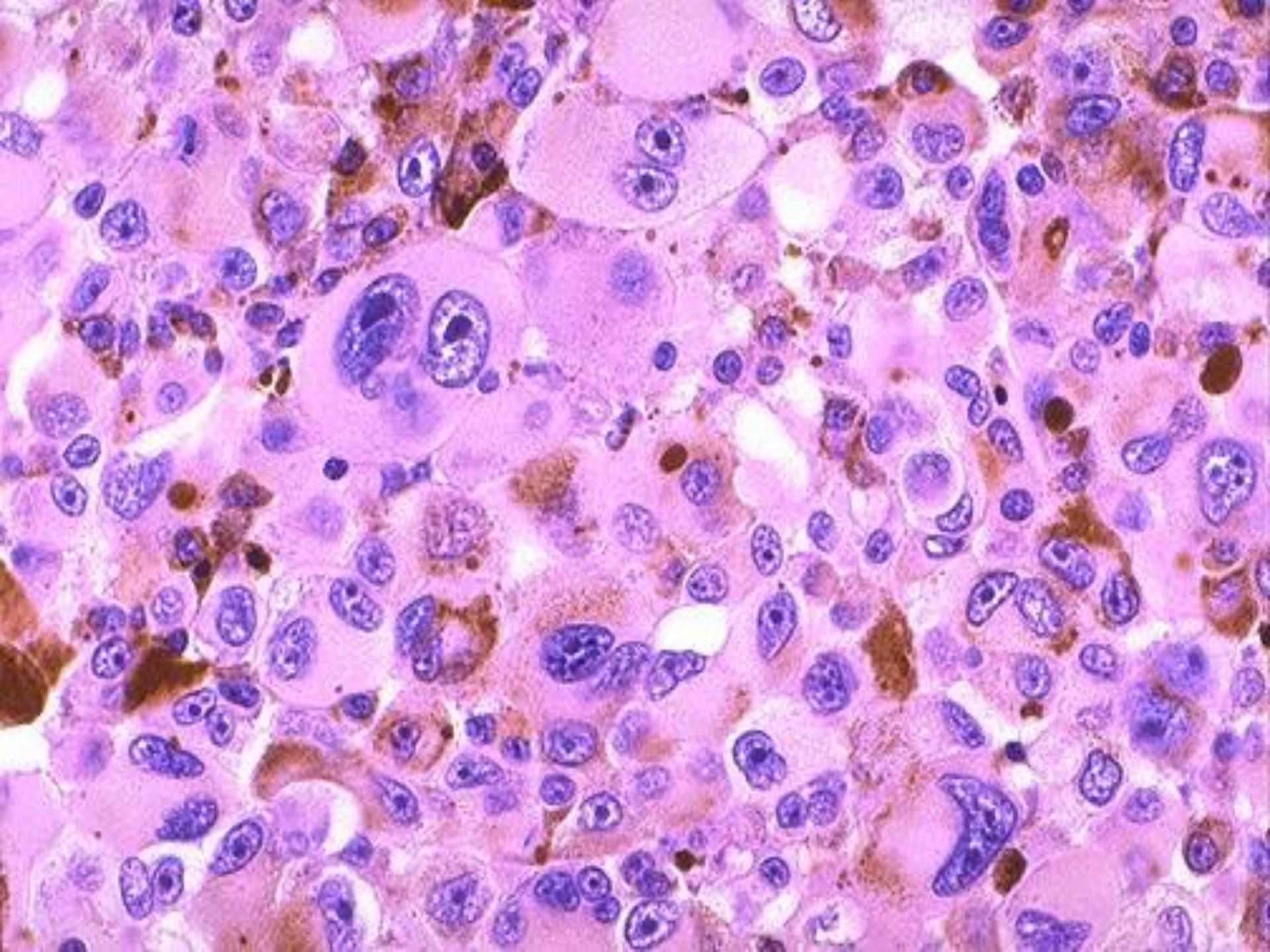
What would a "compound" nevus be?
Ans: BOTH junctional and intradermal.

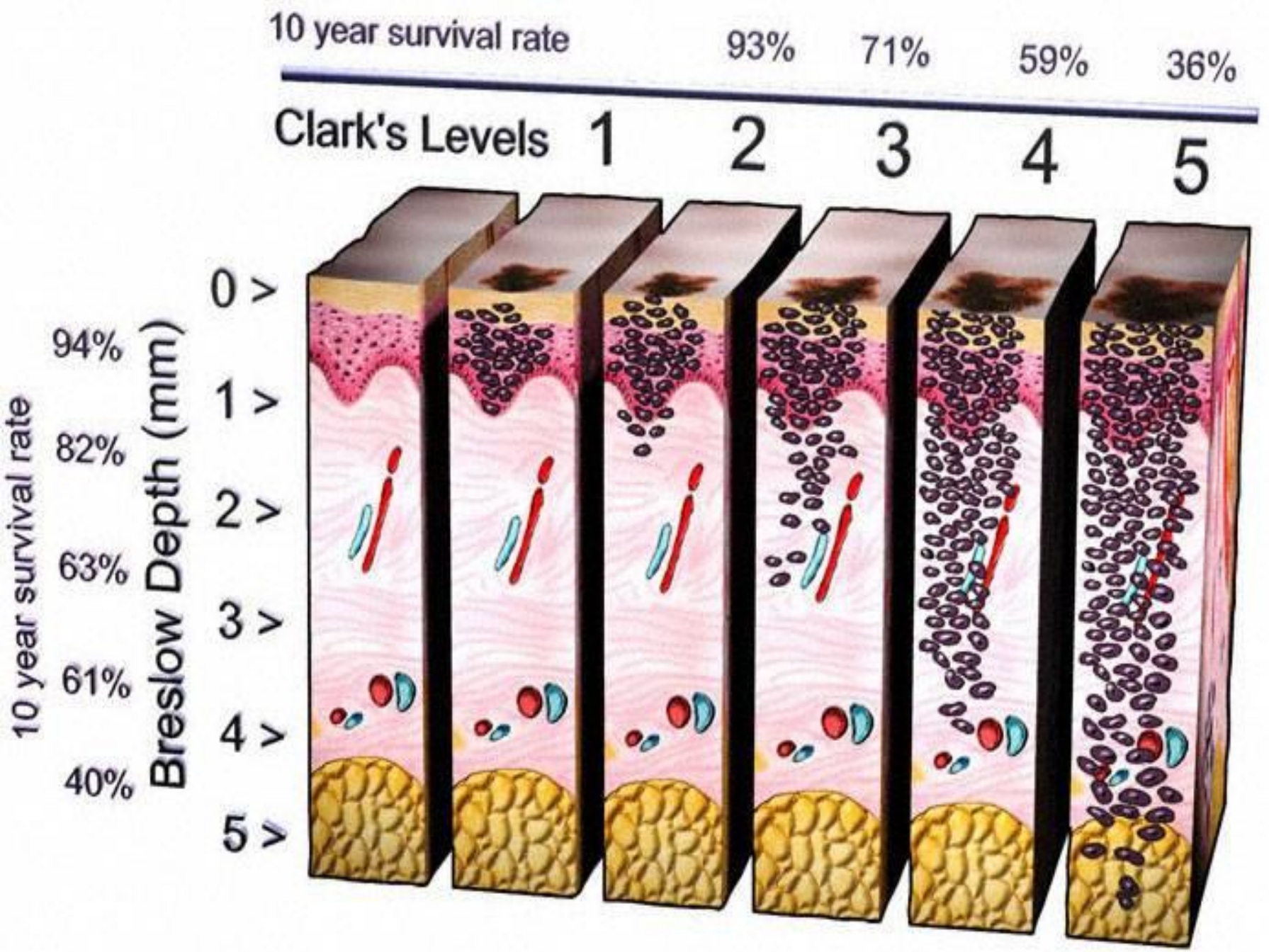
MALIGNANT MELANOMA

Malignant melanomas are malignant proliferations of melanocytes.



What is the ABCDE
Asymmetry
Borders (irregular)
Color (variegated), an
Diameter (greater tha
the size of a pencil era
Evolving over time
These classifications d
the most dangerous fo
melanoma, nodular m
own classifications:
Elevated above the ski
Firm to the touch
Growing
Why do only idiots lea
acronym? Ans: Becaus
already basic in under




10 year survival rate
93%
71%
59%
36%
Clark's Levels
1
2
3
4
5
10 year survival rate
94%
82%
63%
61%
40%
Breslow Depth (mm)
0 >
1 >
2 >
3 >
4 >
5 >
2001 Image by Med-Art ~ http://www.med-ars.it

BENIGN Epidermal Tumors

- **Seborrheic Keratosis**
- **Acanthosis Nigricans**
- **Fibroepithelial Polyp (skin tag)**
- **Epidermal (inclusion) Cyst**
- **Adnexal tumors : Eccrine, Apocrine**
- **Keratoacanthoma**


Seborrheic keratosis


Seborrheic keratosis, a bit more pigmented than the previous one, pigmentation is very common in ALL types of benign keratoses.


Squamous "horn cysts" in seborrheic keratosis

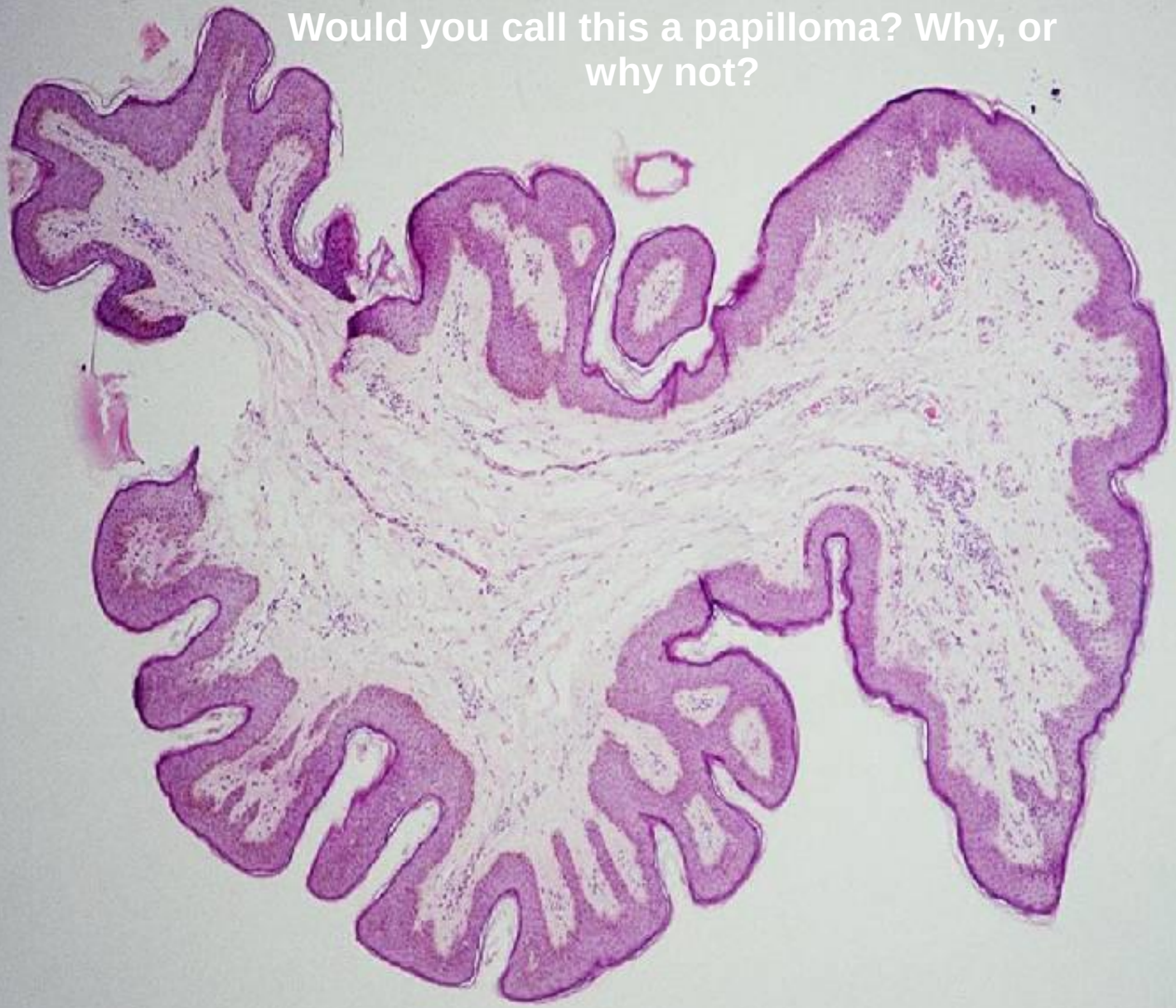
Acanthosis nigricans, often associated with diabetes mellitus

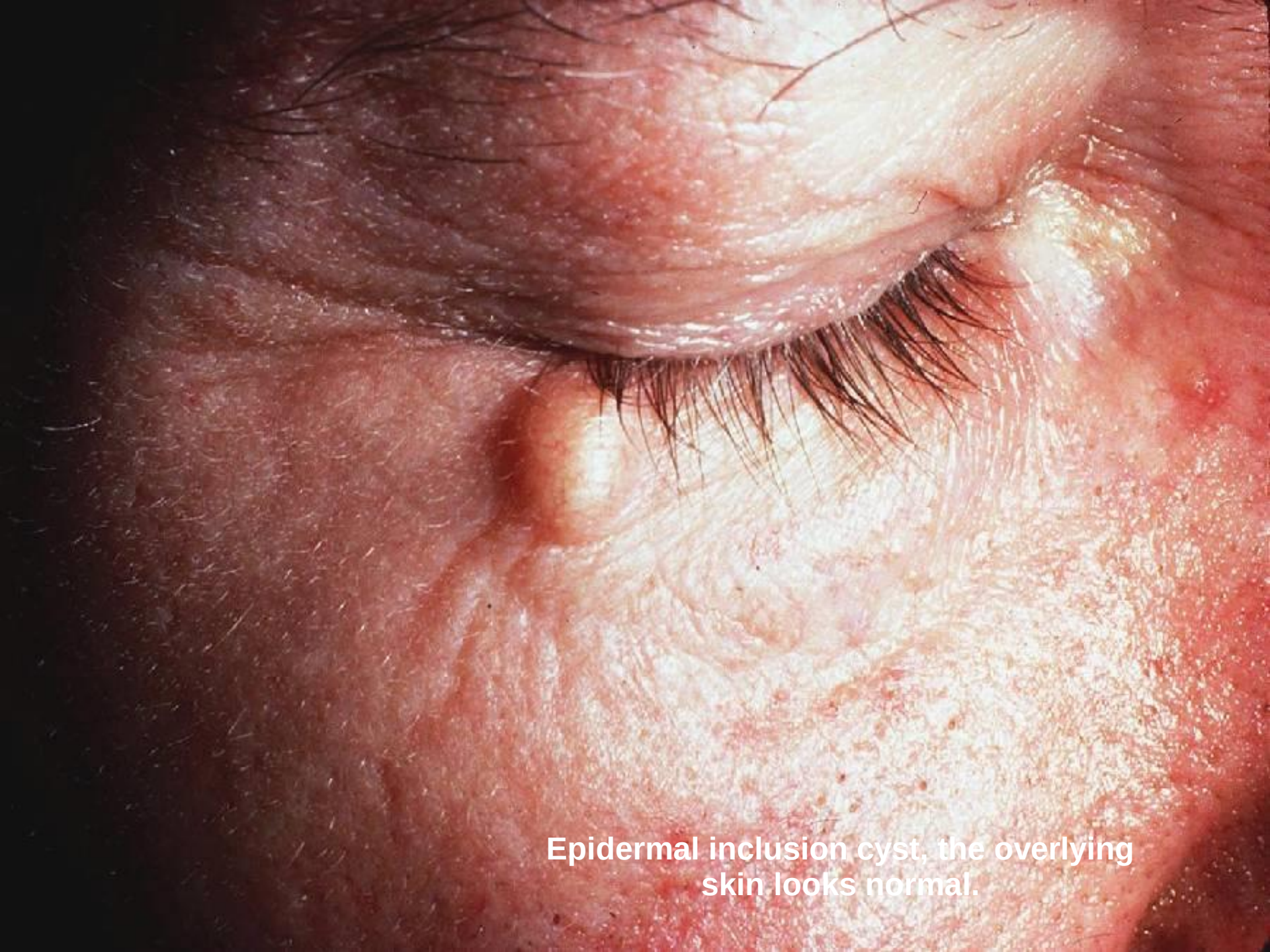
Acanthosis nigricans, often associated with diabetes mellitus

Fibroepithelial polyp, or “skin tag”

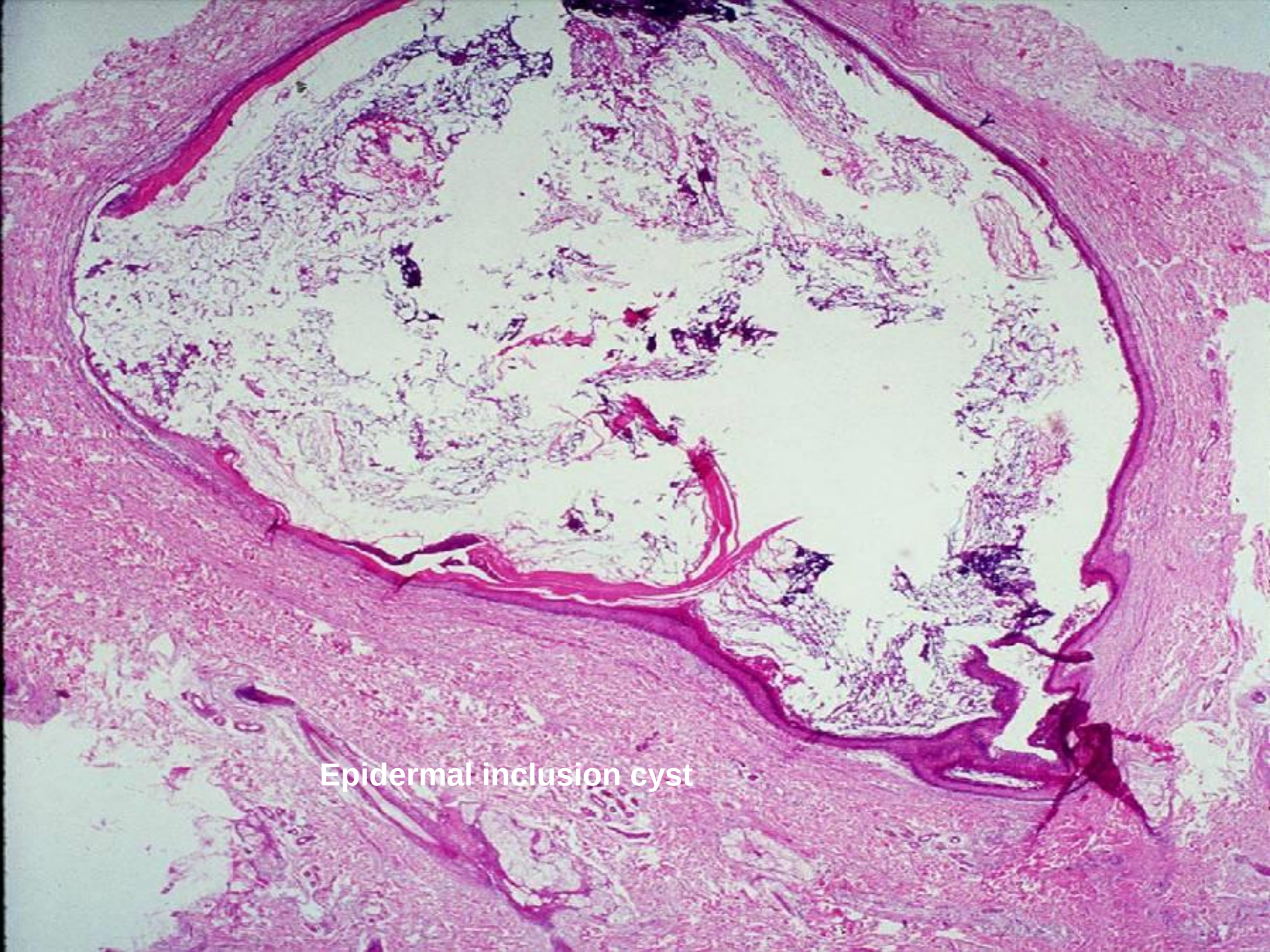
Fibroepithelial polyp, or “skin tag”.

Would you call this a papilloma? Why, or why not?





Epidermal inclusion cyst, the overlying skin looks normal.


Epidermal inclusion cyst

ADNEXAL TUMORS

- **HAIR FOLLICLES**
- **SEBACEOUS GLANDS**
- **SWEAT GLANDS**
  - **ECCRINE**
  - **APOCRINE**


Keratoacanthoma, the MAIN lesion to
differentiate from squamous cell carcinoma

Keratoacanthoma, the MAIN lesion to differentiate from squamous cell carcinoma

Keratoacanthoma, the MAIN lesion to differentiate from squamous cell carcinoma.
What is a collarette?

Is a collarette the classical feature which differentiates KAs from SCCs? Ans: YES

PREMALIGNANT/MALIGNANT

- **ACTINIC (Solar) KERATOSIS, i.e. precursor to SCC**
- **SQUAMOUS CELL CARCINOMA, squamous "pearls", intercellular bridges**
- **BASAL CELL CARCINOMA, by far, MOST COMMON, BLUE palisading nests**
- **MERKEL CELL CARCINOMA (TUMOR), VERY MALIGNANT AND LETHAL, LOOK LIKE SMALL CELL CA. OF LUNG**

GENERAL COMMENTS

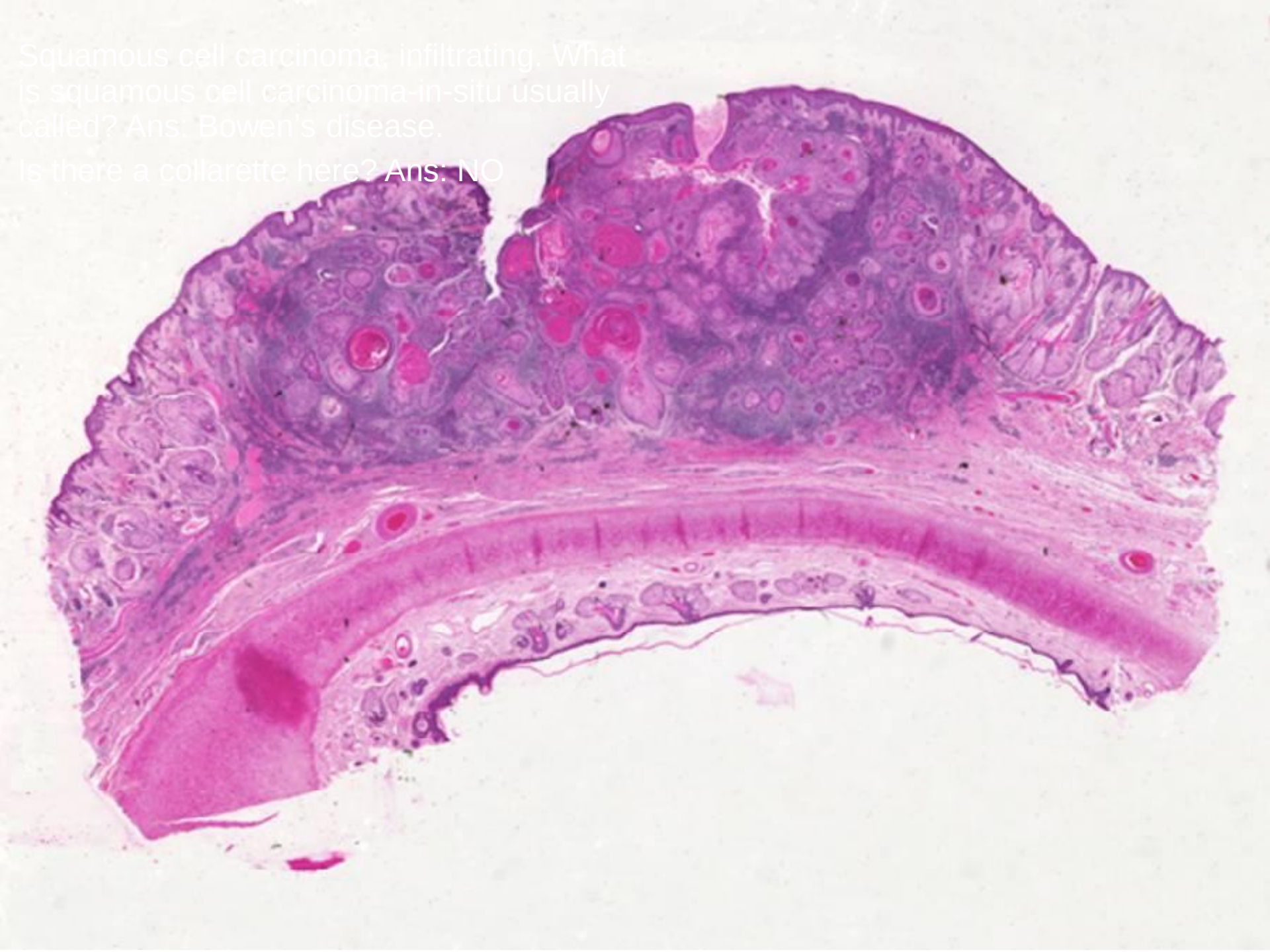
- **BOTH SCC and BCC related to SUN (i.e., radiation) exposure. (as is MM also)**
- **SCC also related to As, carcinogens, chaw, betel nut, HPV, familial, etc.**
- **BOTH SCC and BCC can do local damage but very rarely metastasize or kill.**
- **MERKEL CELL tumors metastasize early and extensively, like melanomas.**


Actinic keratosis

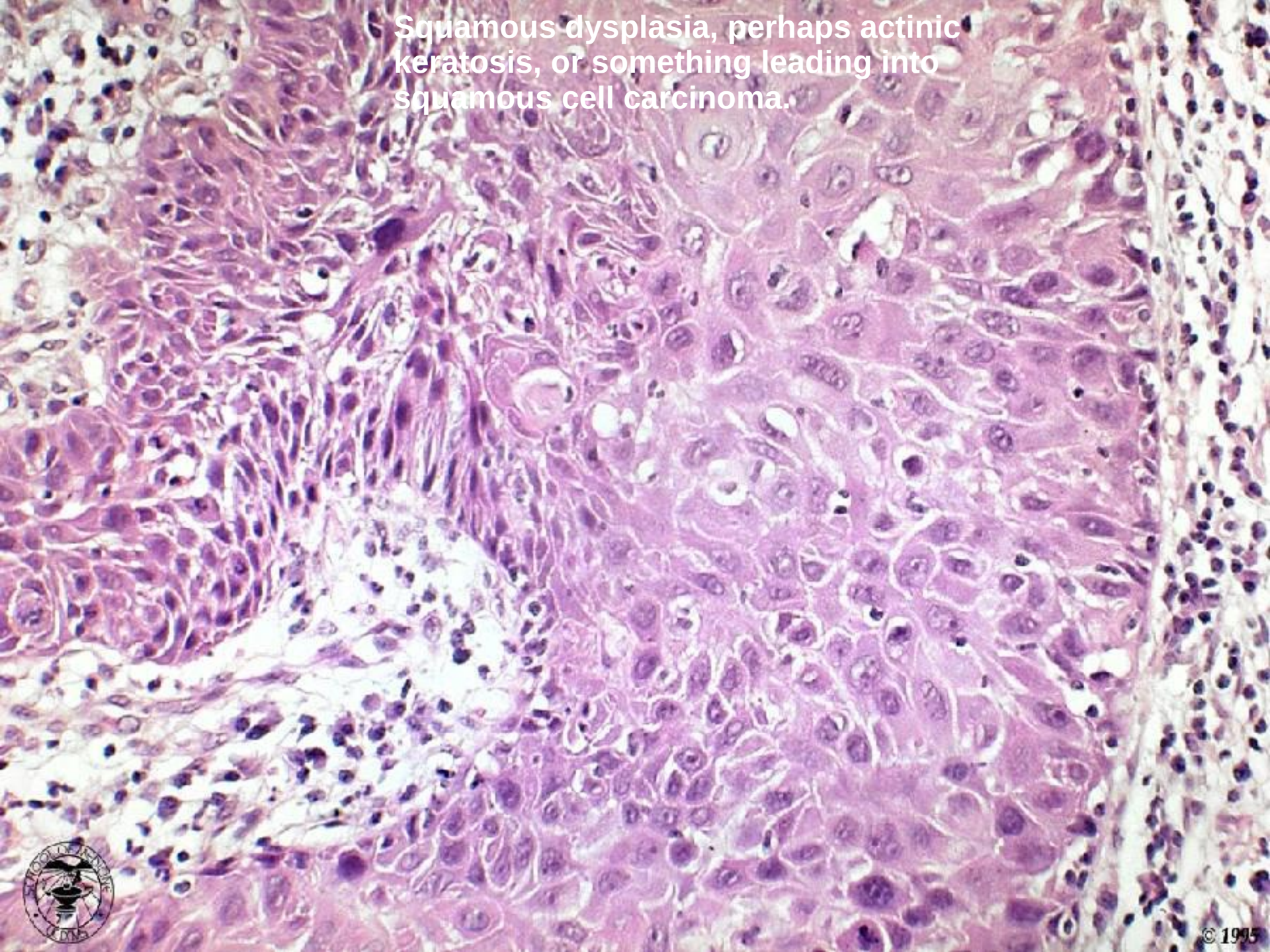

Actinic keratosis vs. squamous cell carcinoma
© 1996, Dermatology, University of Iowa

Squamous cell carcinoma, infiltrating. What is squamous cell carcinoma-in-situ usually called? Ans: Bowen's disease.

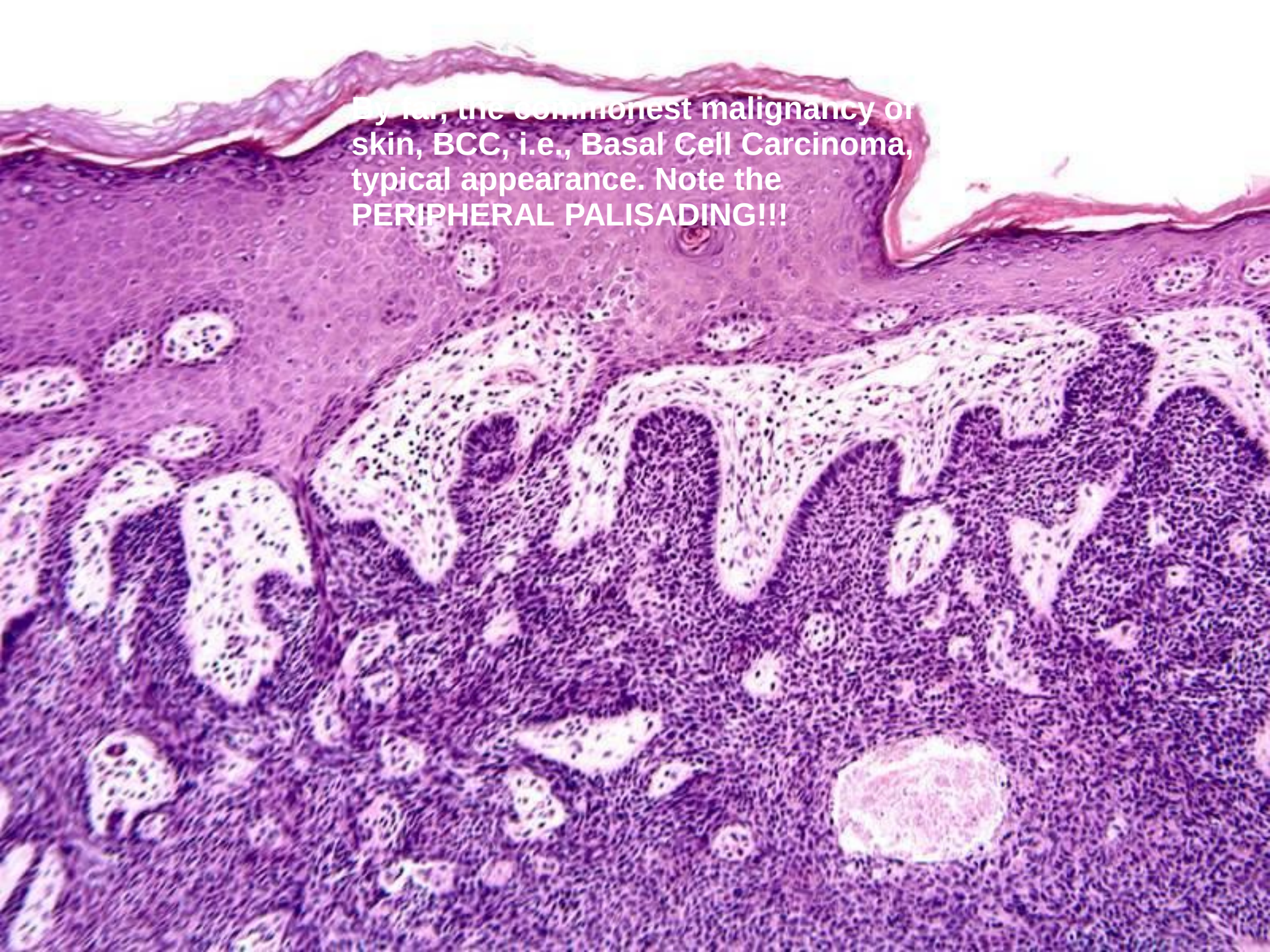
Is there a collarette here? Ans: NO

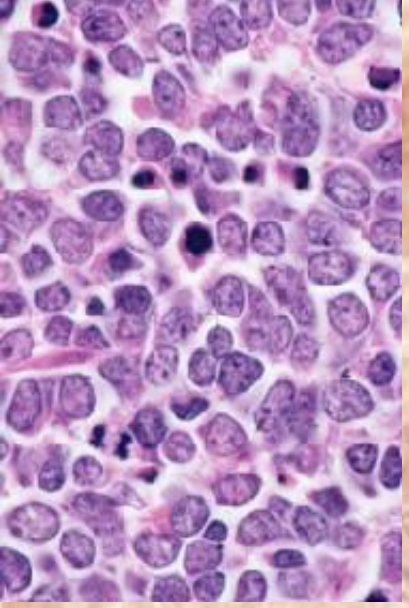



Squamous cell carcinoma, infiltrating. Note the “pearls”. Does the presence of pearls make this well differentiated? Ans: Yes.


Squamous dysplasia, perhaps actinic keratosis, or something leading into squamous cell carcinoma.
© 1995

By far, the commonest malignancy of skin, BCC, i.e., Basal Cell Carcinoma, typical appearance.


By far, the commonest malignancy of skin, BCC, i.e., Basal Cell Carcinoma, typical appearance. Note the PERIPHERAL PALISADING!!!

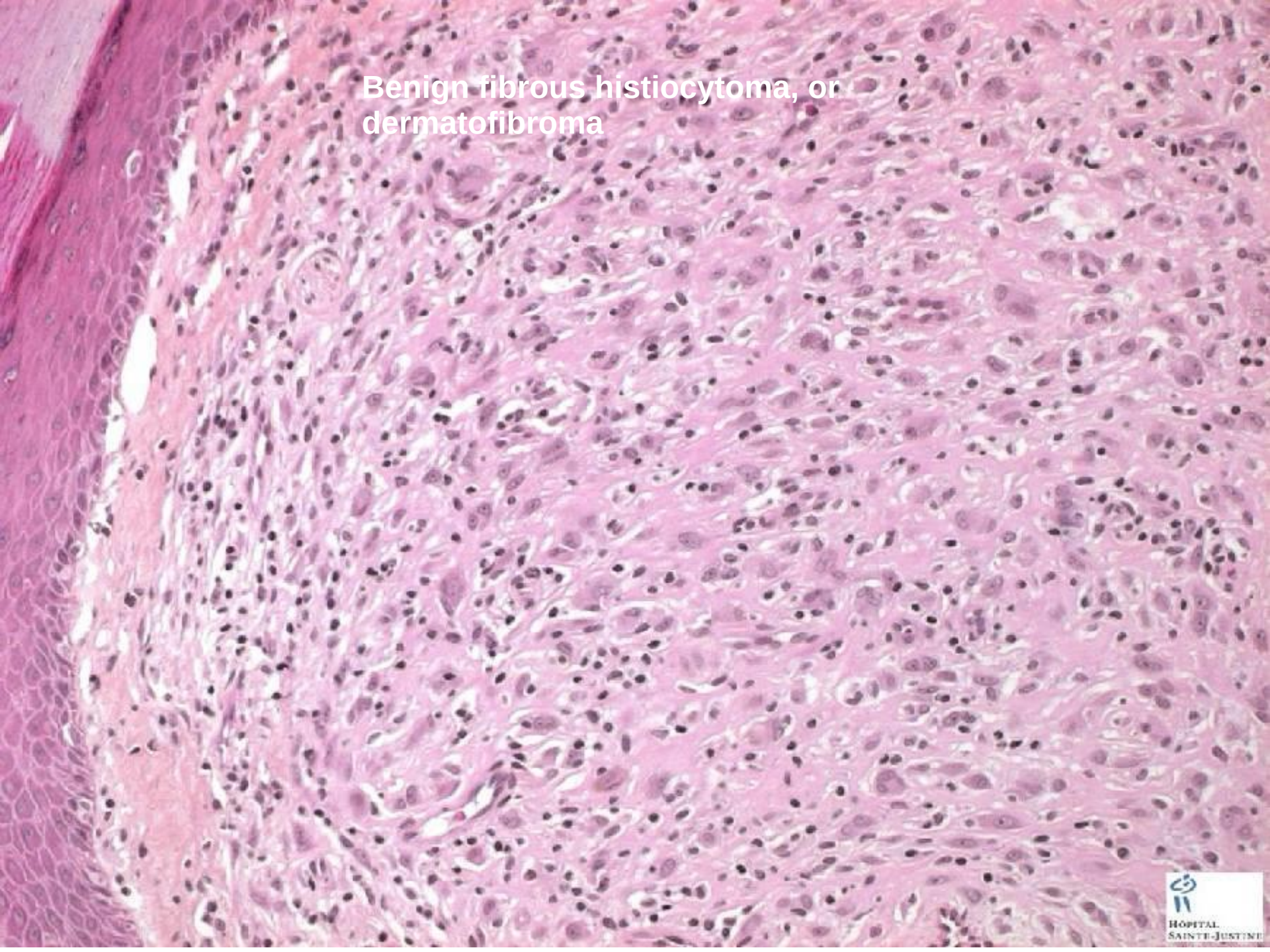


Merkel cell tumor, very highly malignant RARE and usually fatal, looks EXACTLY like a small cell carcinoma of the lung? Ans: yes.

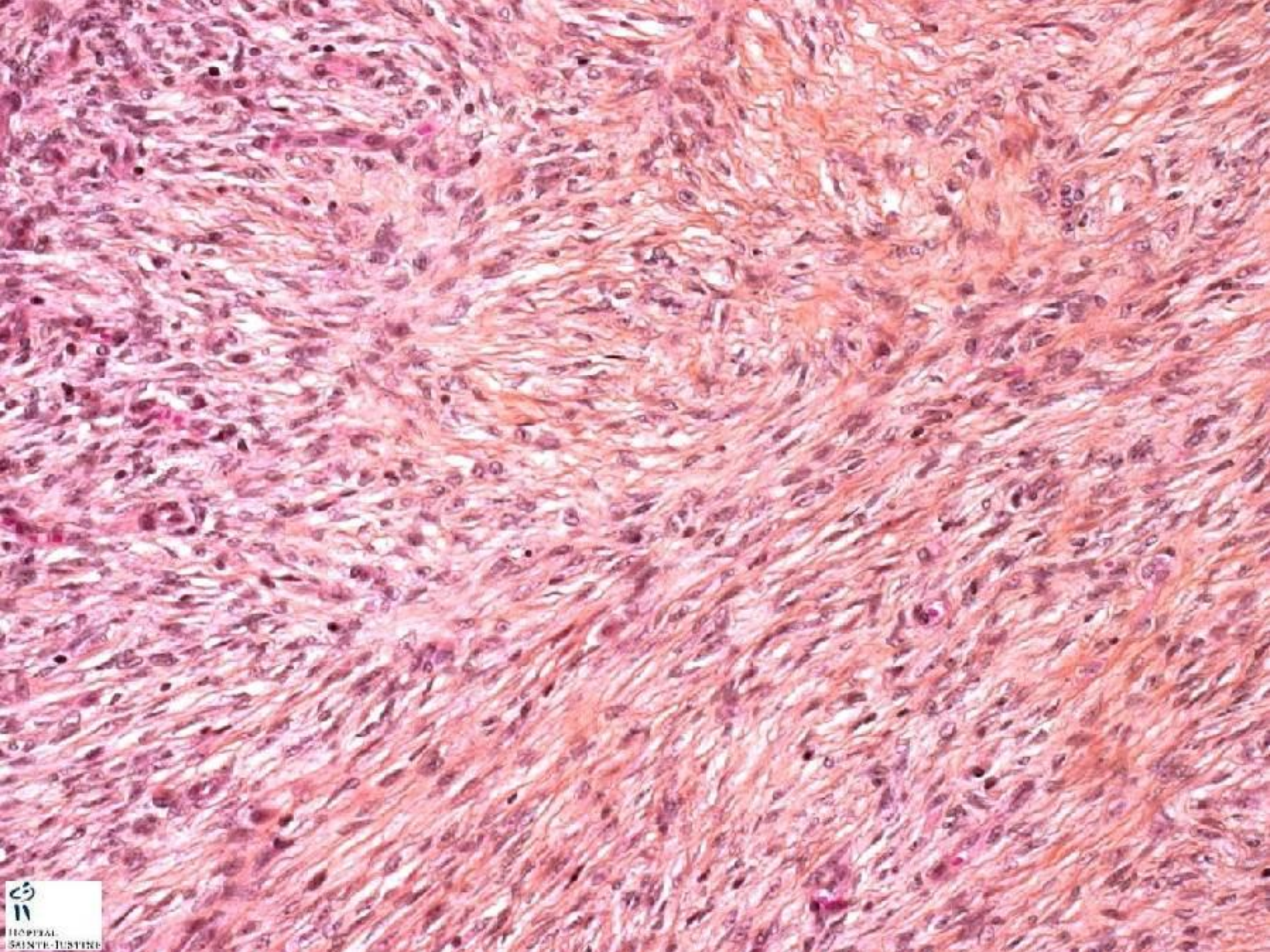
DERMIS TUMORS

- **DERMATOFIBROMA (BENIGN FIBROUS HISTIOCYTOMA)**
- **DERMATOFIBROSARCOMA PROTUBERANS (DFP)**
- **MALIGNANT FIBROUS HISTIOCYTOMA (MFH)**
- **XANTHOMA**
- **VASCULAR TUMORS of various types**

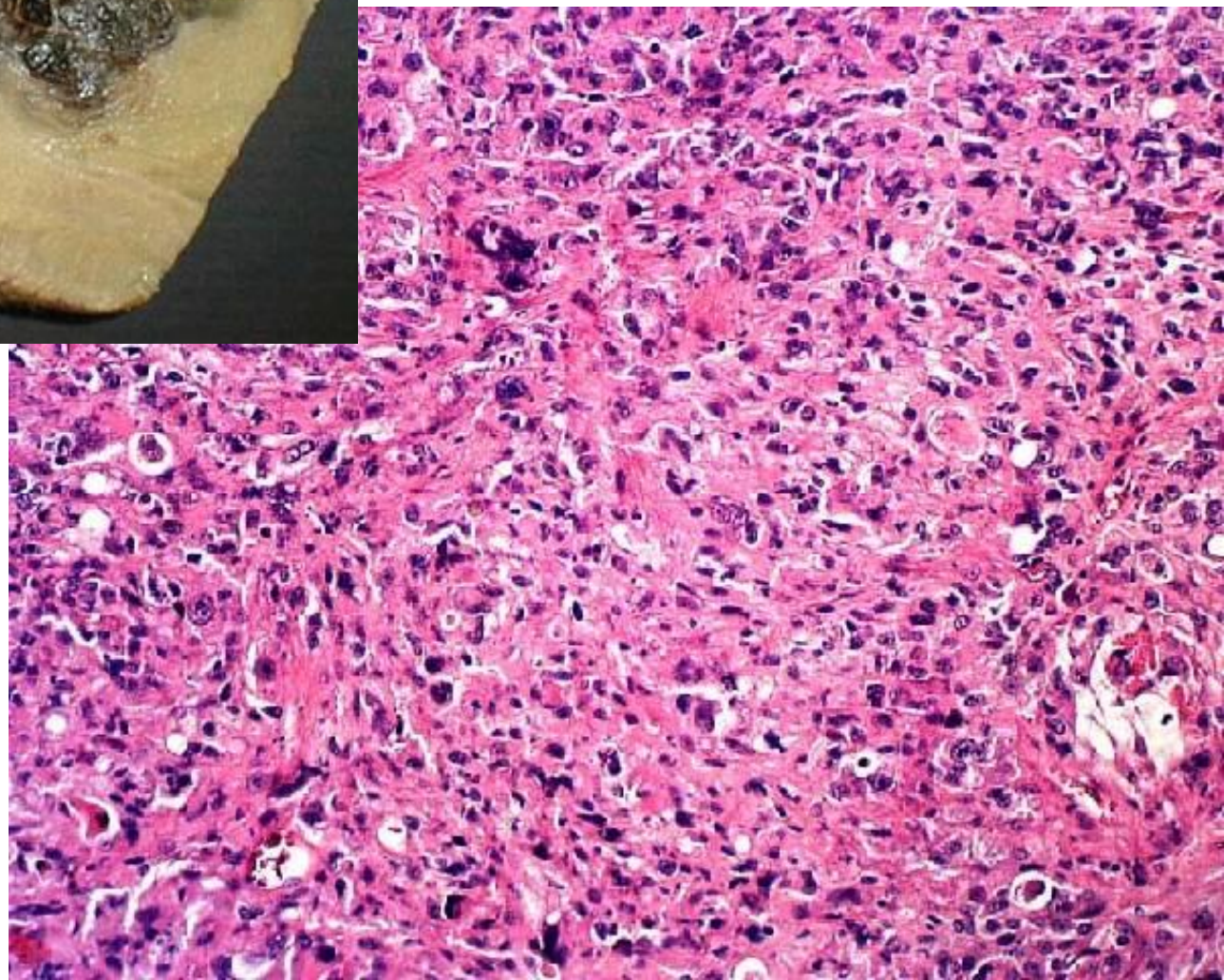

Benign fibrous histiocytoma, or
dermatofibroma


Benign fibrous histiocytoma, or
dermatofibroma
HÔPITAL
SAINTE-JUSTINE

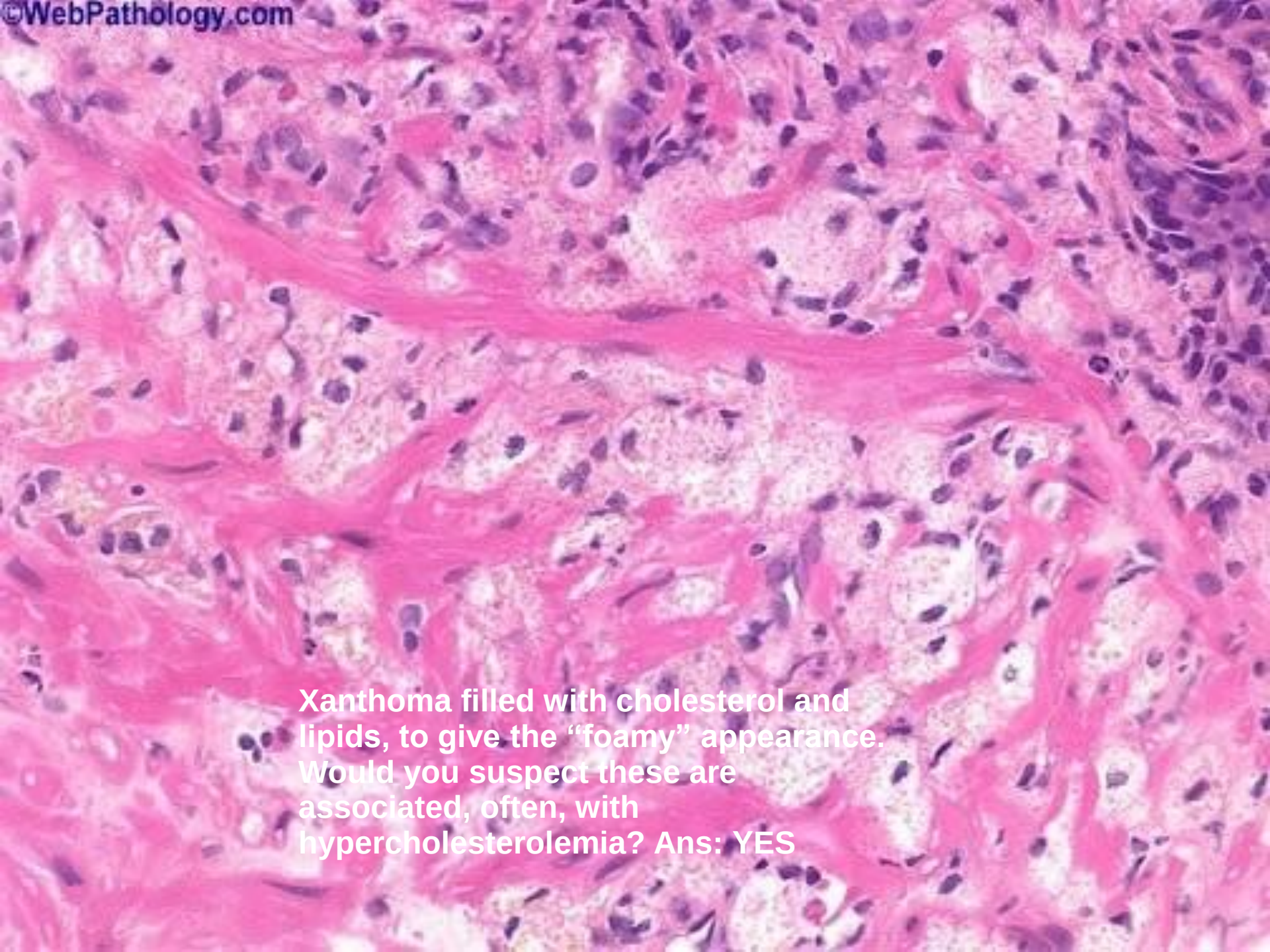

Large fibrous histiocytoma, perhaps a
dermatofibrosarcoma protuberans?


11
HOPITAL
SAINTE-JUSTINE

Malignant fibrous histiocytoma.

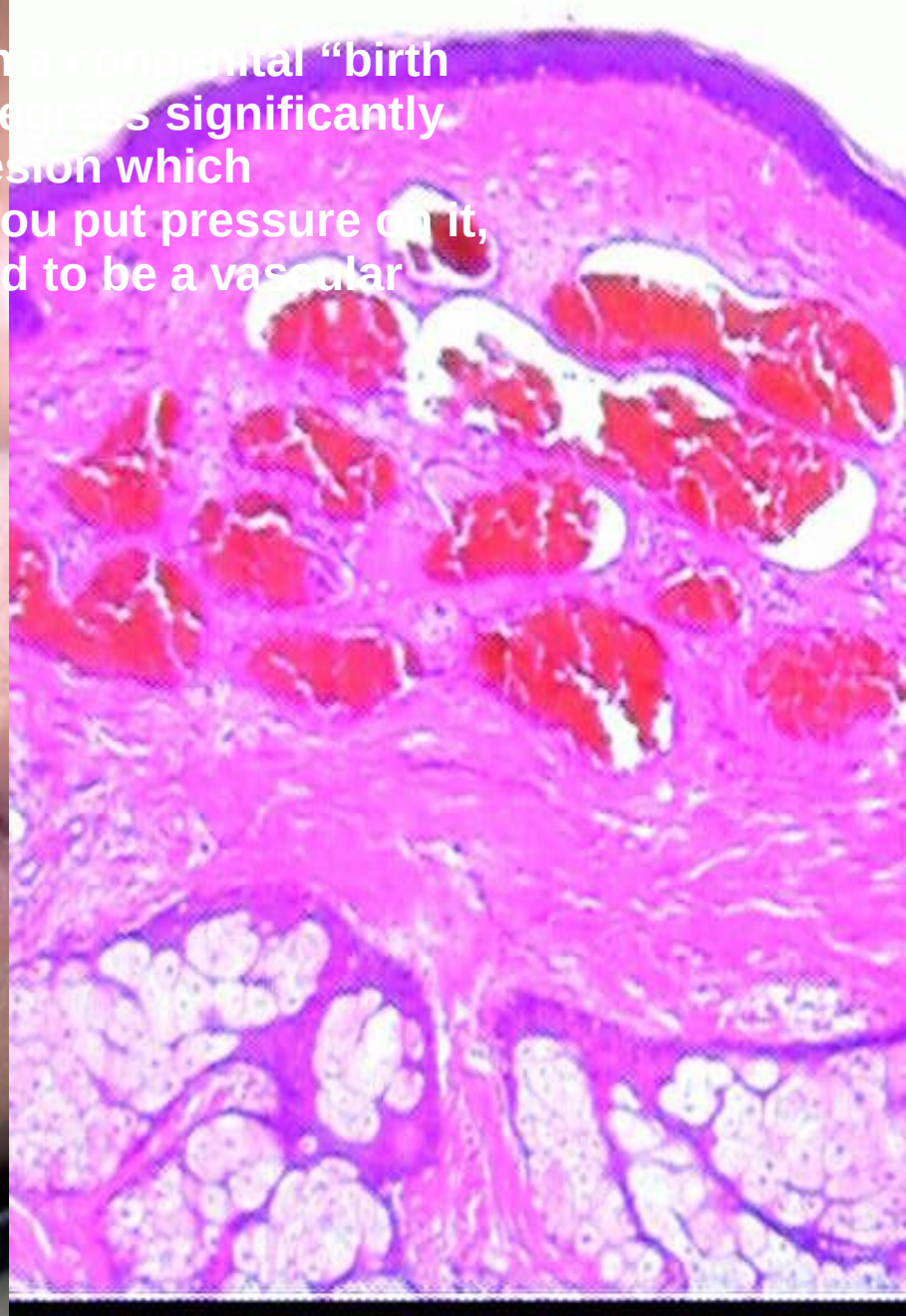


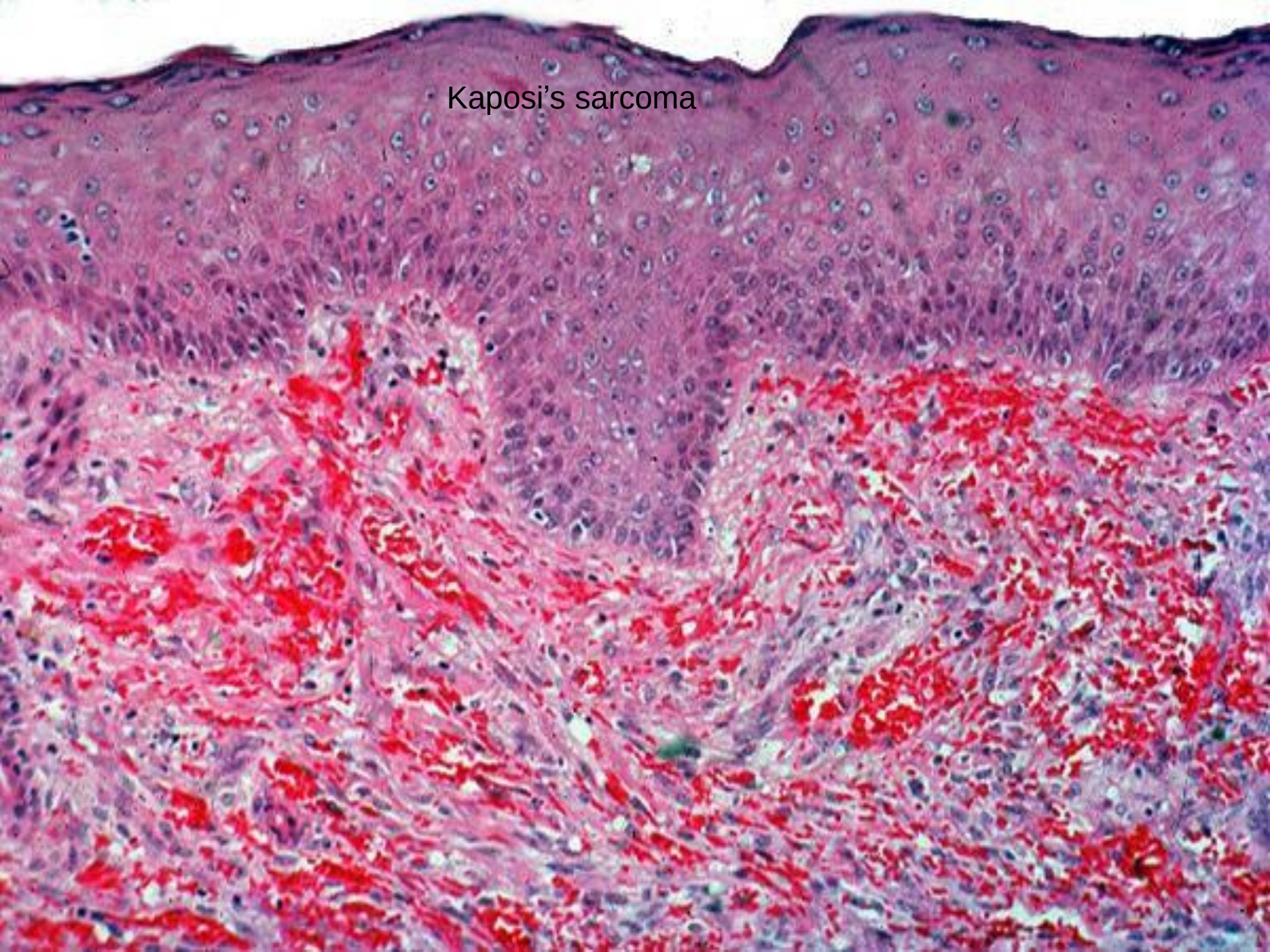

Xanthomas filled with cholesterol and lipids,
to give the “foamy” appearance.



Xanthoma filled with cholesterol and lipids, to give the “foamy” appearance. Would you suspect these are associated, often, with hypercholesterolemia? Ans: YES

Hemangioma, often congenital “birth mark”, which can regress significantly with aging. A red lesion which “blanches” when you put pressure on it, is always suspected to be a vascular tumor.



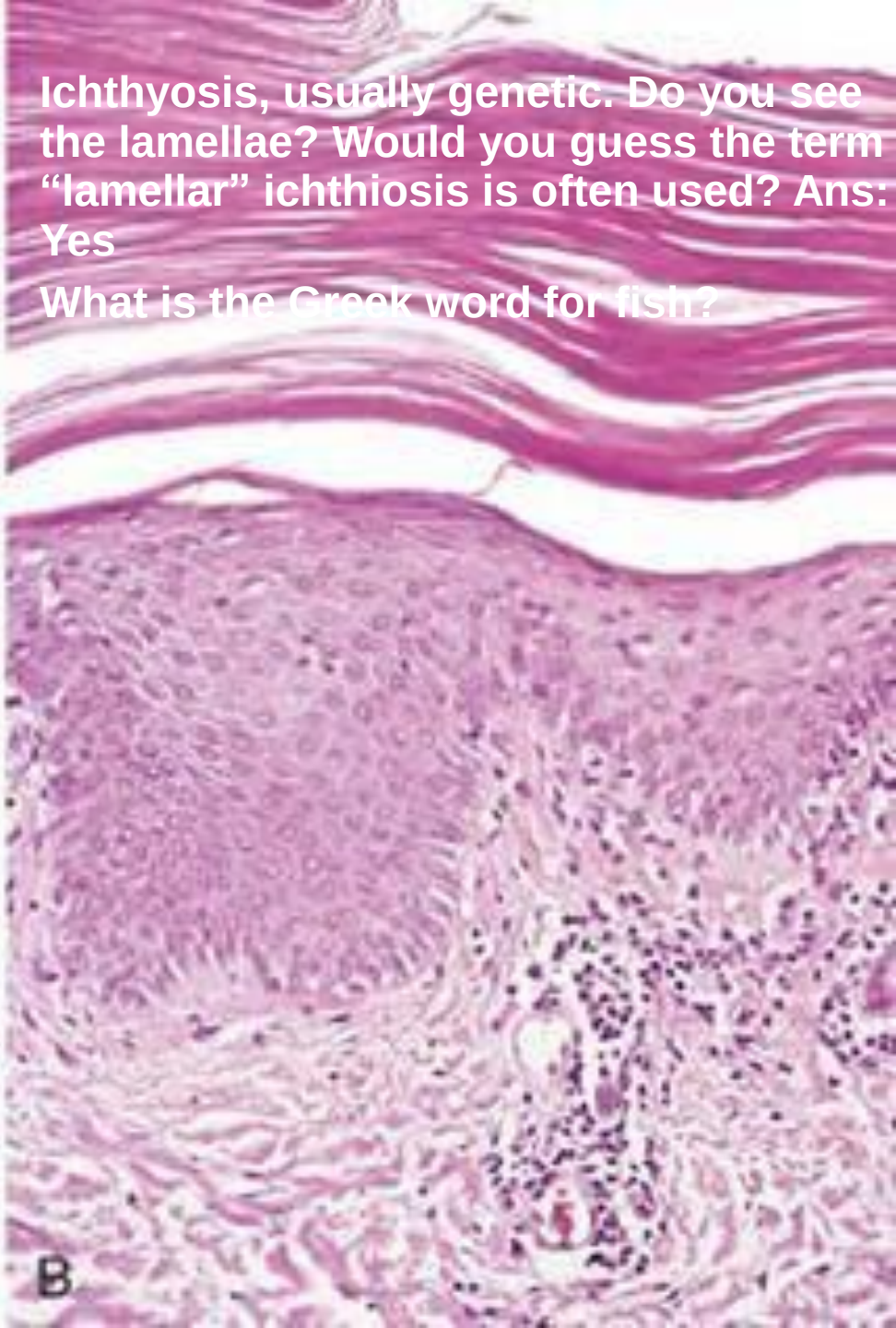

Kaposi’s sarcoma

Cellular “Immigrants”

- **Langerhans cells (Histiocytosis)**
- **Mycosis Fungoides (T-Cell cutaneous lymphoma)**
- **Mastocytosis (mast cell tumors)**

Ichthyosis, usually genetic. Do you see the lamellae? Would you guess the term “lamellar” ichthiosis is often used? Ans: Yes

What is the Greek word for fish?



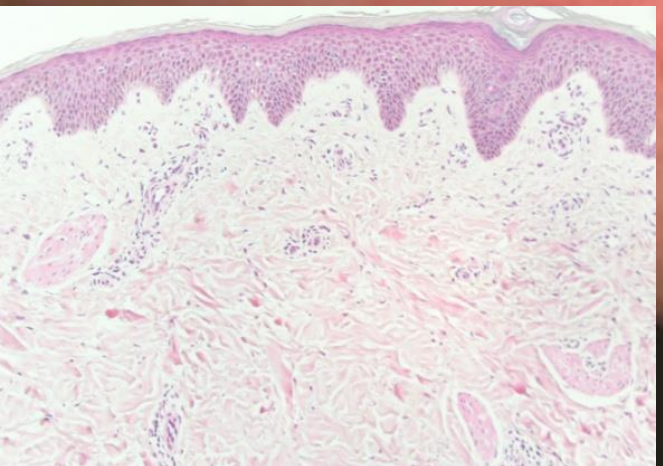
DERMATOSES

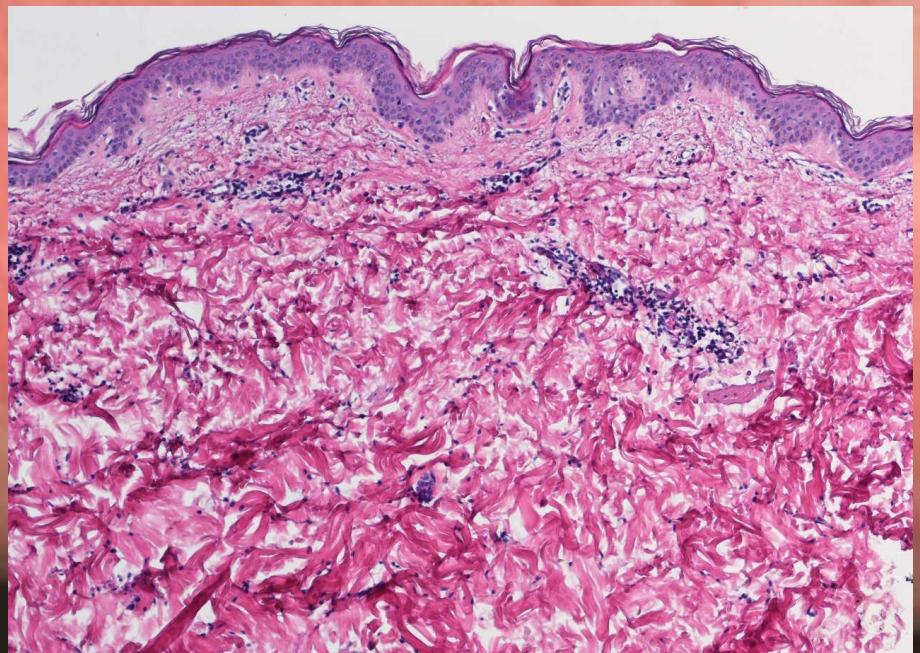
- **ACUTE**
  - URTICARIA (i.e., "HIVES")
  - ECZEMA
  - ERYTHEMA MULTIFORME
- **CHRONIC**
  - PSORIASIS
  - SEBORRHEIC DERMATITIS
  - LICHEN PLANUS
  - LUPUS ERTHYMATOSUS

URTICARIA

- **DERMAL EDEMA**
- **DILATATION of VASCULAR SPACES**
- **EARLY PERIVASCULAR CUFFING OF INFLAMMATORY CELLS**

Is urticaria the classic skin response to type 1 hypersensitivity? Ans: YES



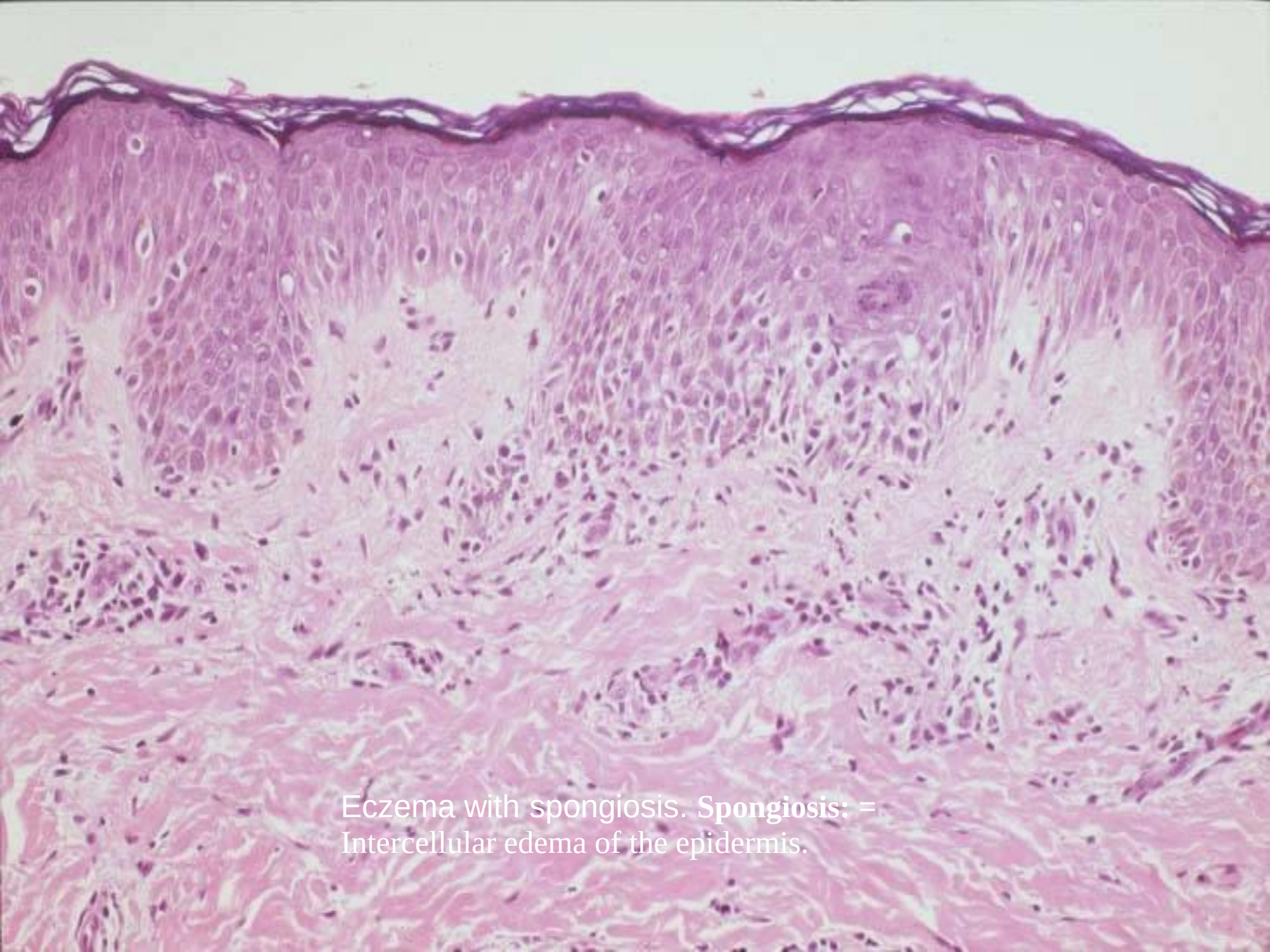


ECZEMA

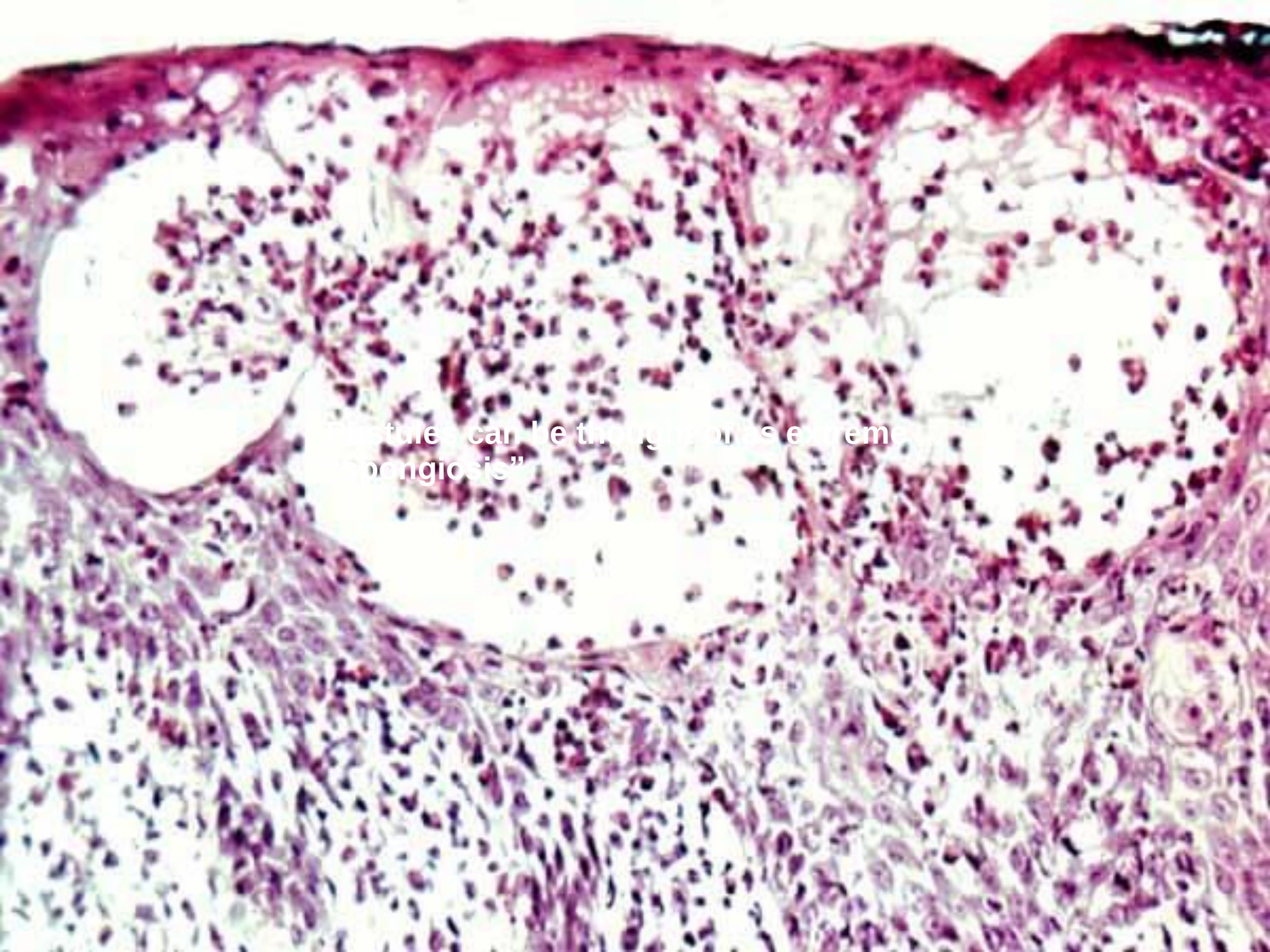
(aka, acute eczematous dermatitis)

- **A myriad of ACUTE inflammatory disorders, with allergic, drug related, sun related etiologies**
- **The common histologic feature is SPONGIOSIS**

(Atopic) Eczema



Eczema with spongiosis. **Spongiosis:** = Intercellular edema of the epidermis.



Pustules, ulcerated.

Pustules, like vesicles and bullae, have an “evolution” of clinical and histologic appearances, generally following the acute__>chronic inflammatory evolution.

Erythema multiforme is a skin condition of unknown cause, possibly mediated by deposition of immune complex (mostly IgM) in the superficial microvasculature of the skin and oral mucous membrane that usually follows an infection or drug exposure. It is a common disorder, with peak incidence in the second and third decades of life. This severe form may be related to Stevens-Johnson syndrome.
Does this look like extreme urticaria?

PSORIASIS

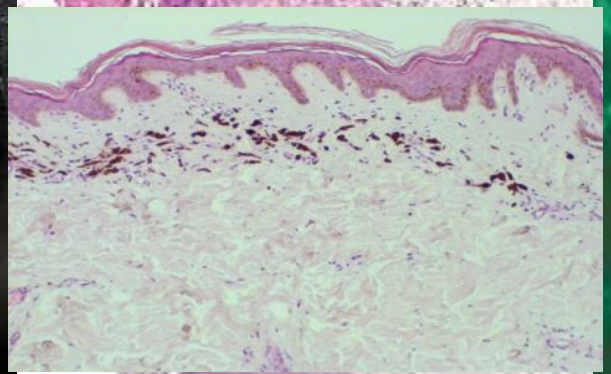
- 1-2% of USA
- Elbows, Knees
- Parakeratosis, generalized epidermal hyperplasia, **elongation of the rete pegs**, extensive chronic inflammatory cell infiltrates, “MUNRO” intraepidermal microabscesses

Classical psoriasis, parakeratosis, hyperplasia, rete peg elongation, chronic inflammation, microabscesses (of Munro)

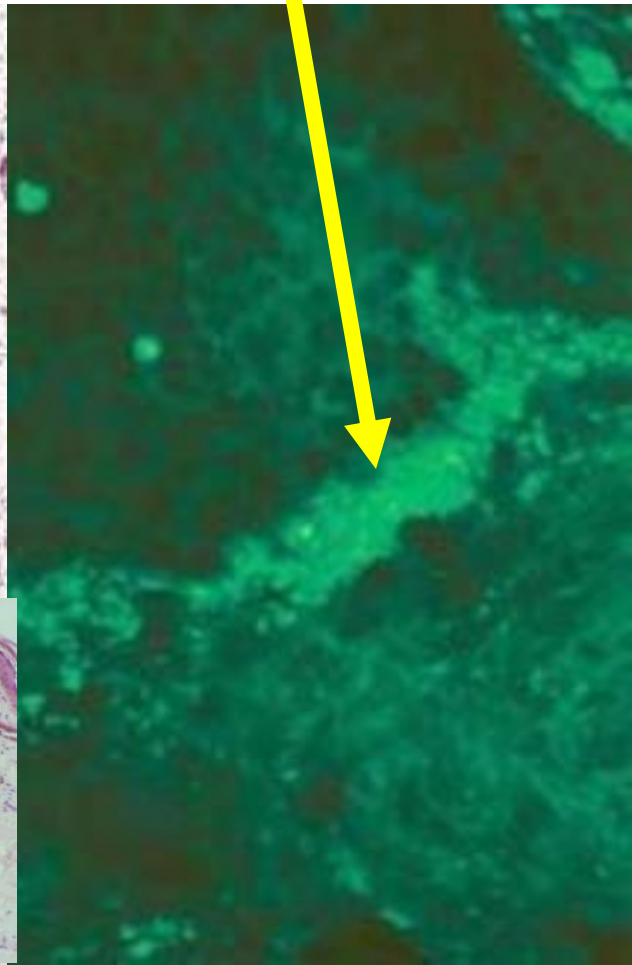
SEBORRHEIC DERMATITIS

IN HIV

LICHEN PLANUS



LUPUS



Possibly the commonest skin disease you will see every day, so I'm giving you 5 classic views.

Do you think stasis dermatitis is commonest in the areas of tissues often most compromised by atherosclerosis?

STASIS DERMATITIS

STASIS DERMATITIS

STASIS DERMATITIS


STASIS DERMATITIS

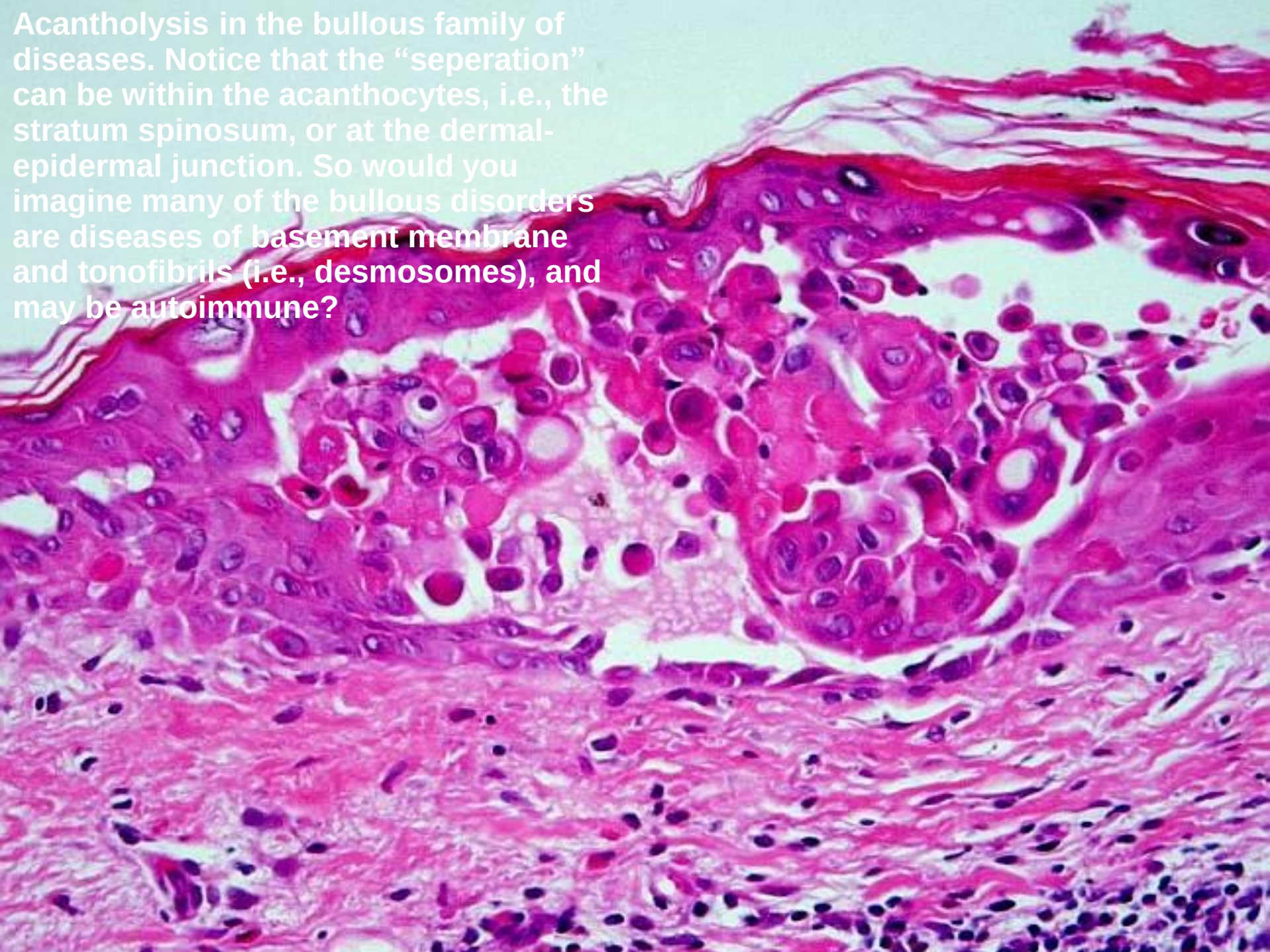
BULLOUS DISEASES

- **PEMPHIGUS(VULGARIS)**
- **BULLOUS PEMPHIGOID**
- **DERMATITIS HERPETIFORMIS**
- **EPIDERMOLYSIS BULLOSA**
- **PORPHYRIA**

- **"ACANTHOLYSIS" is the common unifying finding, as is basement membrane immunoglobulins**

Pemphigus, fresh bullae

Pemphigus, ruptured, scabbed bullae


Acantholysis in the bullous family of diseases. Notice that the “seperation” can be within the acanthocytes, i.e., the stratum spinosum, or at the dermal-epidermal junction. So would you imagine many of the bullous disorders are diseases of basement membrane and tonofibrils (i.e., desmosomes), and may be autoimmune?

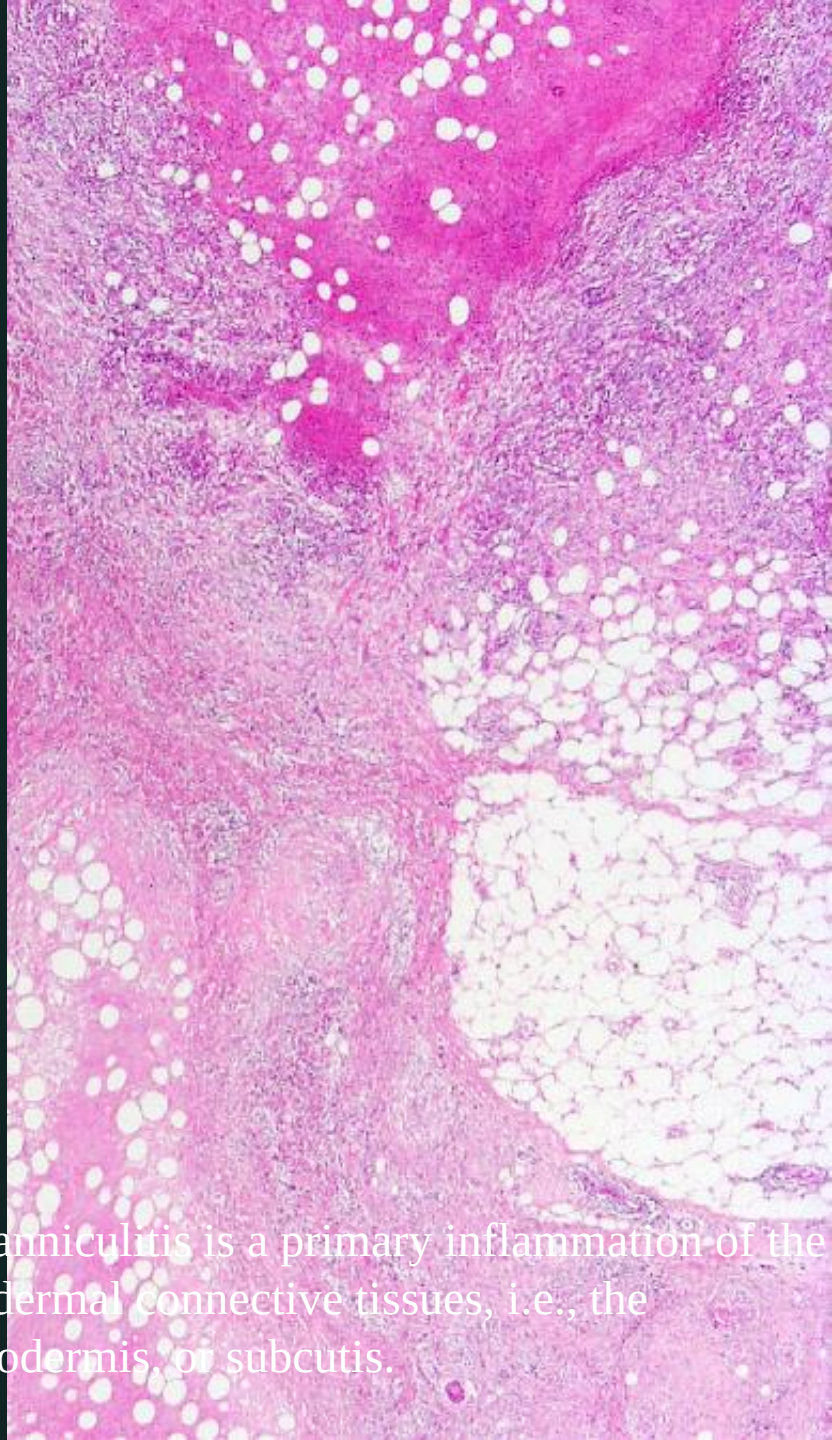
ACNE VULGARIS

- **Bread and Butter of dermatology practice**
- **Sebaceous duct blockage with secondary inflammation is main feature**
- **bacterial lipases of *Propionibacterium acnes* break down sebaceous oils, and the resulting fatty acids acts as irritants**

PANNICULITIS

- **ERYTHEMA NODOSUM, (red nodules on legs)**

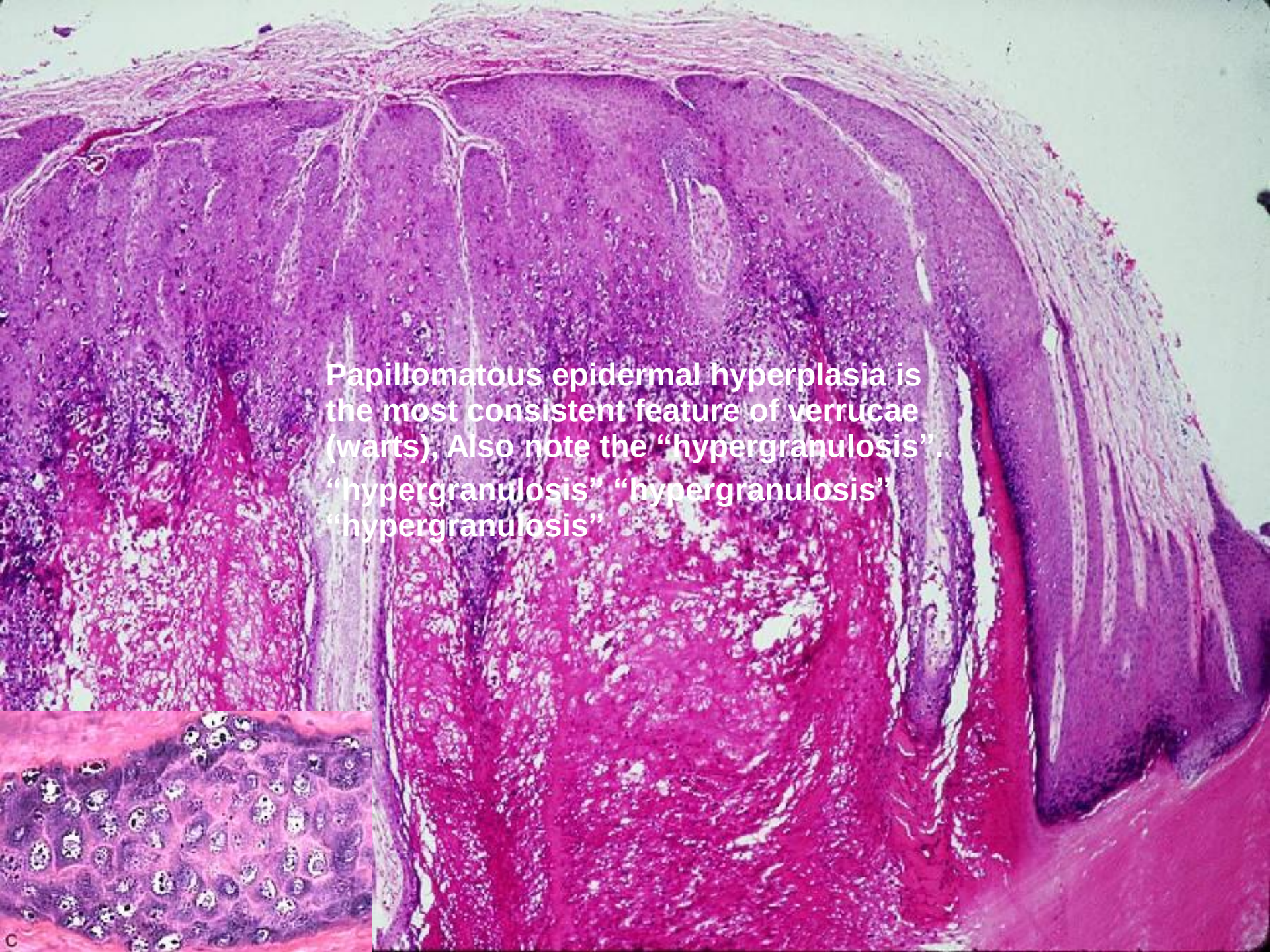
- **E ATUM**



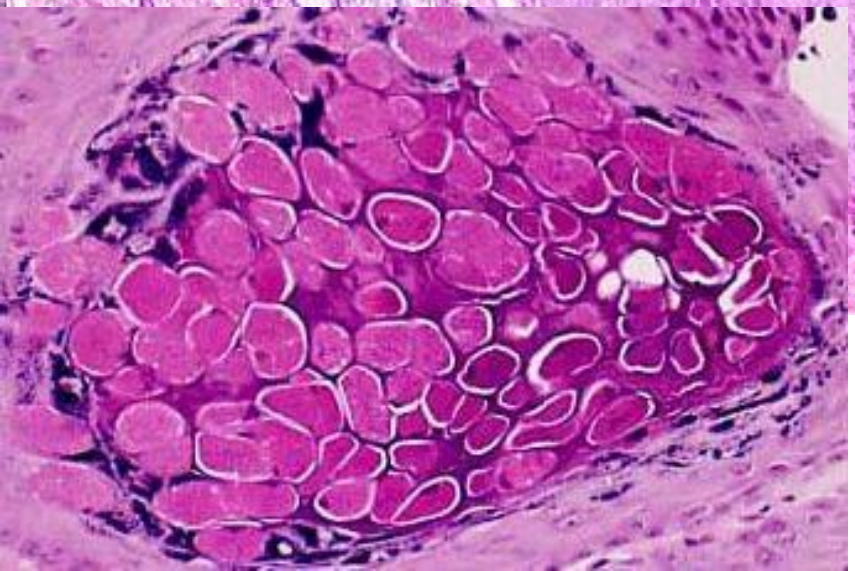
A panniculitis is a primary inflammation of the subdermal connective tissues, i.e., the hypodermis, or subcutis.

INFECTION/INFESTATION

- **VERRUCAE, viral (HPV)**
- **MULLUSCUM CONTAGIOSUM, viral**
- **IMPETIGO, bacterial, staph→ strep**
- **FUNGI**
- **ARTHROPODS**


Papillomatous epidermal hyperplasia is the most consistent feature of verrucae (warts). Also note the “hypergranulosis”.
“hypergranulosis” “hypergranulosis” “hypergranulosis”

Molluscum contagiosum, a pox virus



RED → PURPLE → BLUE

Impetigo, caused by staph and strep,
usually in small kids.

TINEAS…

- …Capitis (Scalp ringworm)
- …Barbae
- …Corporis (Ringworm)
- …Cruris (Jock itch)
- …Pedis (Athlete’s foot)
- Onychomycosis (nail)

TINEAS

- Trichophyton species
- Microsporum species
- Epidermophyton species

Ringworm of scalp, Tinea capitis

Tinea barbae

Ringworm of the body, Tinea corporis

Tinea cruris, or jock itch

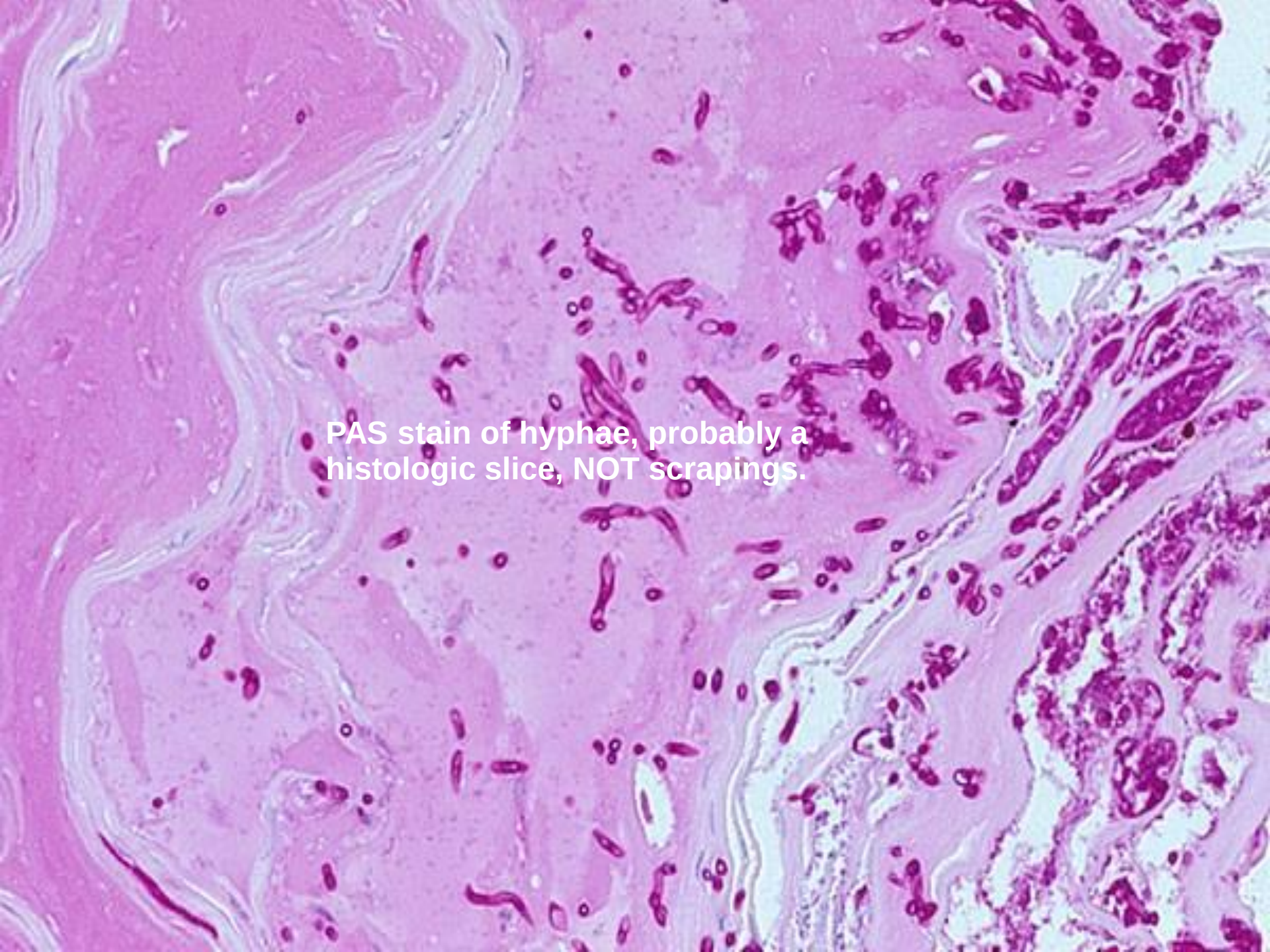
Athlete’s foot, or tinea pedis.

Is this interspace the most common place for tinea pedis?

Why? If your patient has a gangrenous toe, which one is most likely?

Onychomycosis (Note the LACK of the word tinea)

PAS stain of hyphae, probably scrapings


PAS stain of hyphae, probably a
histologic slice, NOT scrapings.

ARTHROPODS

- **Bites**
- **Stings**
- **INFESTATIONS**

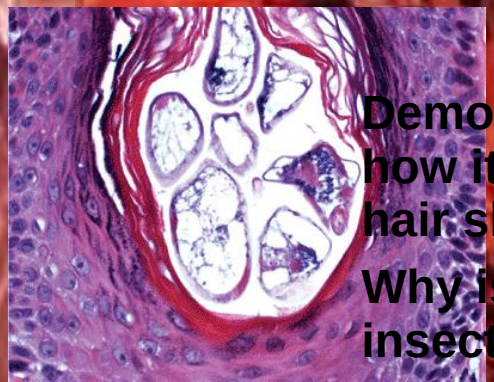
ARTHROPODS

- **Scabies**
- **Pediculosis**
- **Demodex**
- **Ticks, Mites**

Scabies in it’s most common location

Body lice (pediculosis)

Pubic louse (phthirus pubis)



Demodex follicularis, a mite larva, notice how it likes to share a hair follicle with a hair shaft.

Why is this an arachnid, and not an insect? Hint: 8 legs.