

Disclaimer

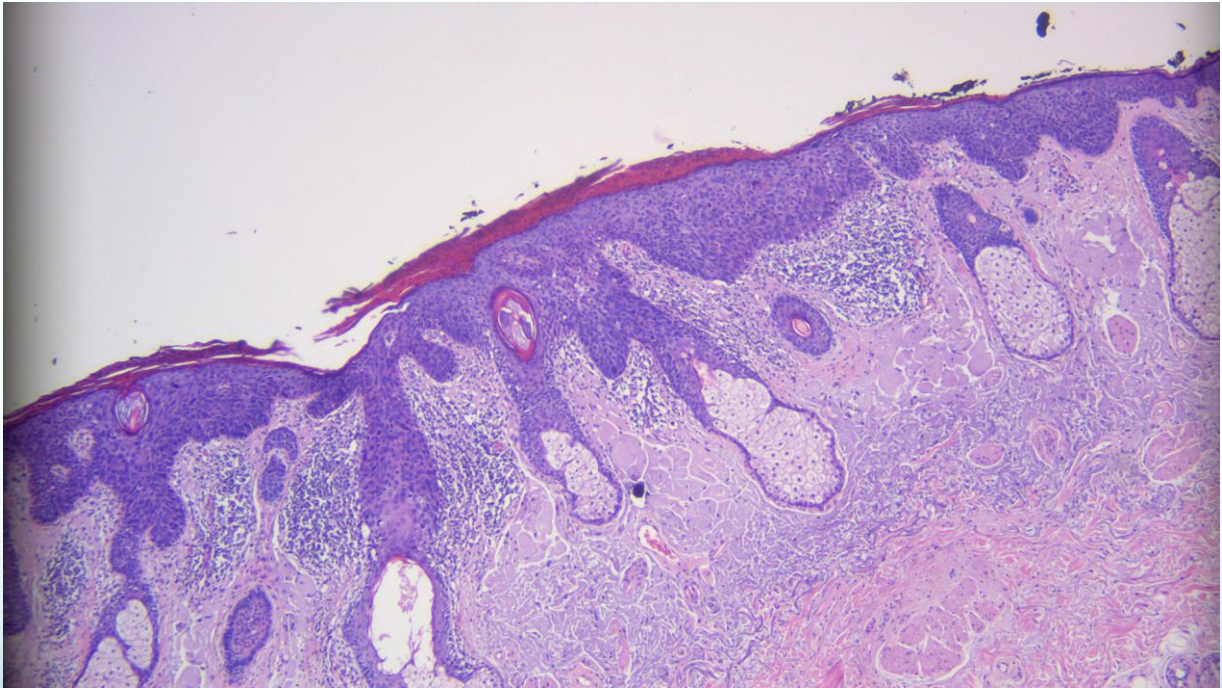
- The copy in this file is protected by copyright of the author or authors. Consent was provided for the express purpose of educating attendees of the 2015 Registrars' Conference in Perth.
- You MAY NOT COPY OR DISTRIBUTE the contents or images in any form.
- You MAY PRINT the document for your own personal use as an educational resource

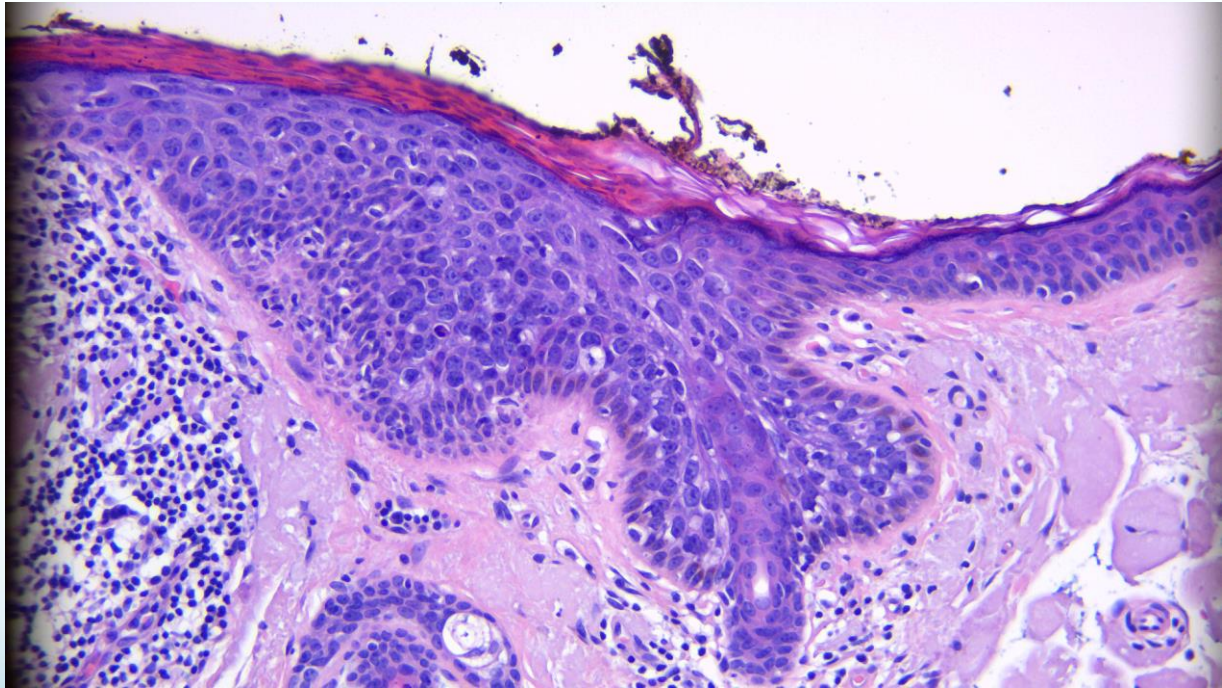
Pathology of Common Head & Neck Malignancies

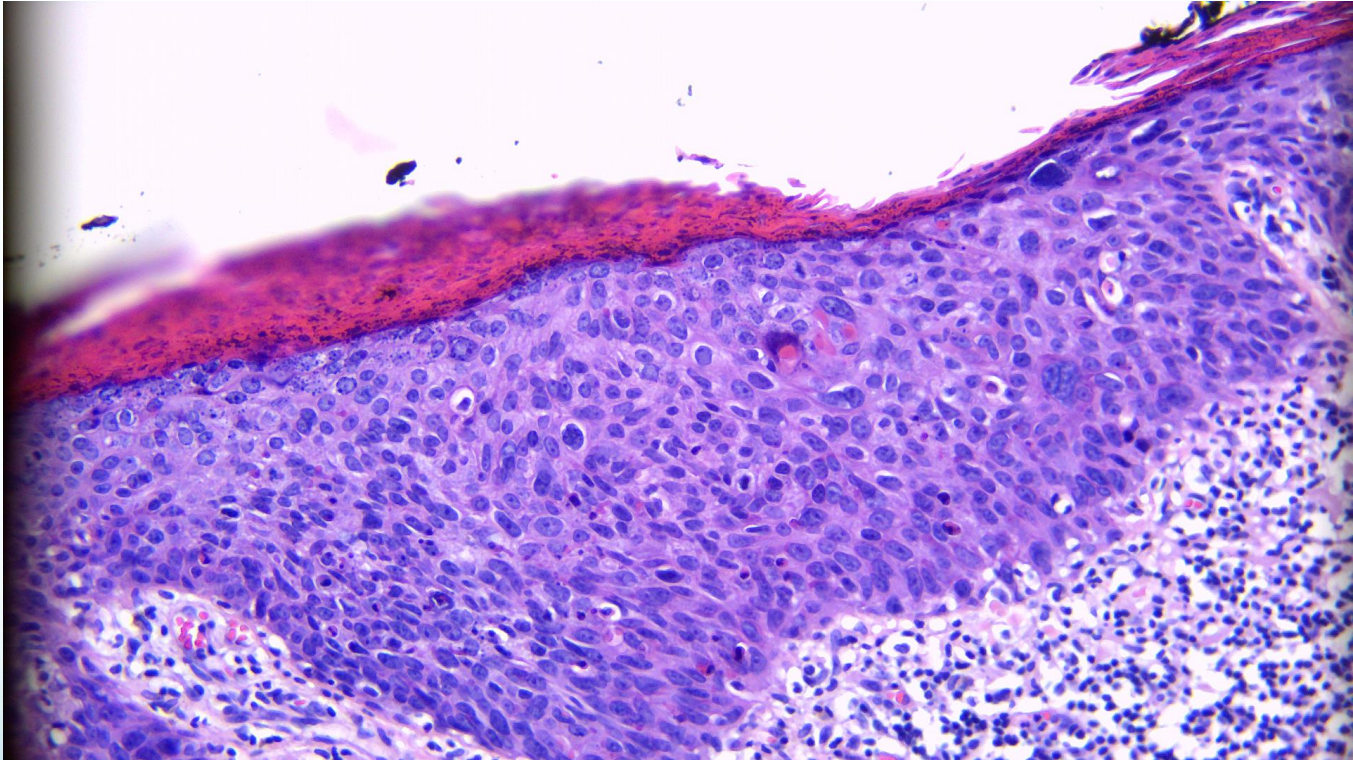
Dr Minh Lam
Cutaneous Pathology
East Perth

- Squamous cell carcinoma
- Basal cell carcinoma
- Atypical fibroxanthoma
- Merkel cell carcinoma
- Melanoma

Squamous cell carcinoma in-situ







Squamous Cell Carcinoma

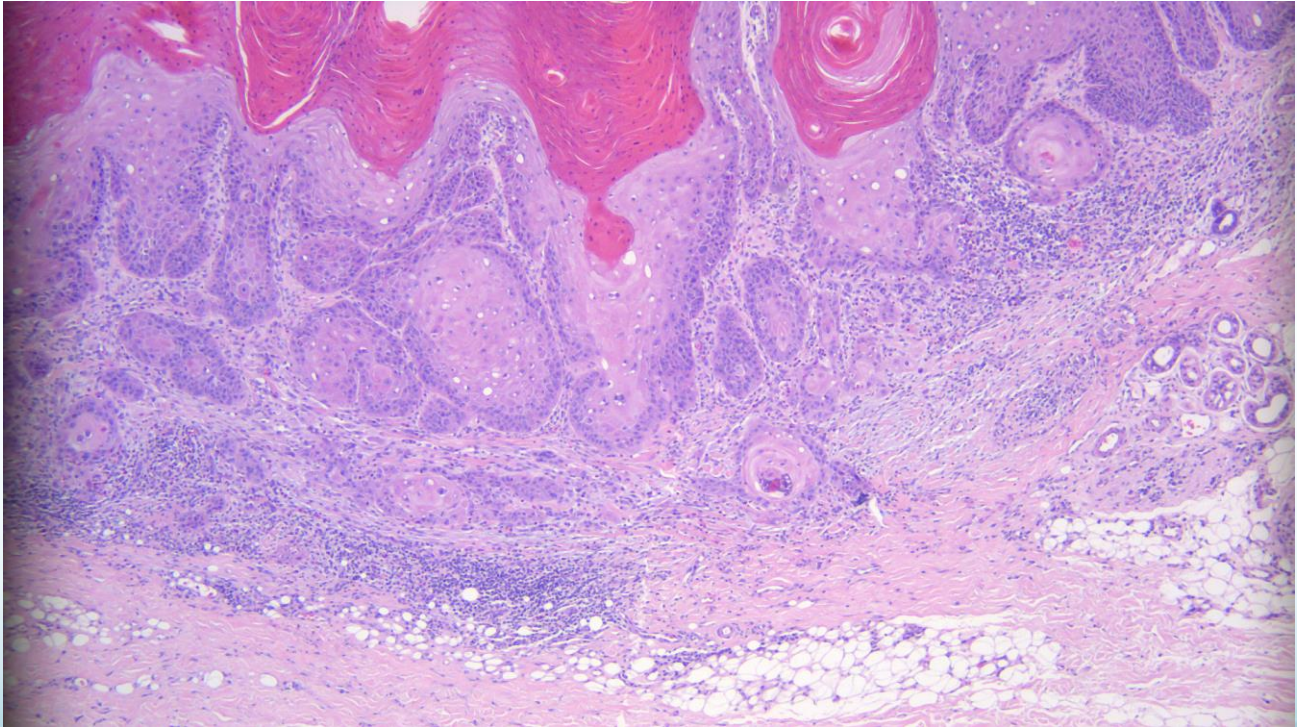
SCC histological classification

- Well differentiated
- Moderately differentiated
- Poorly differentiated

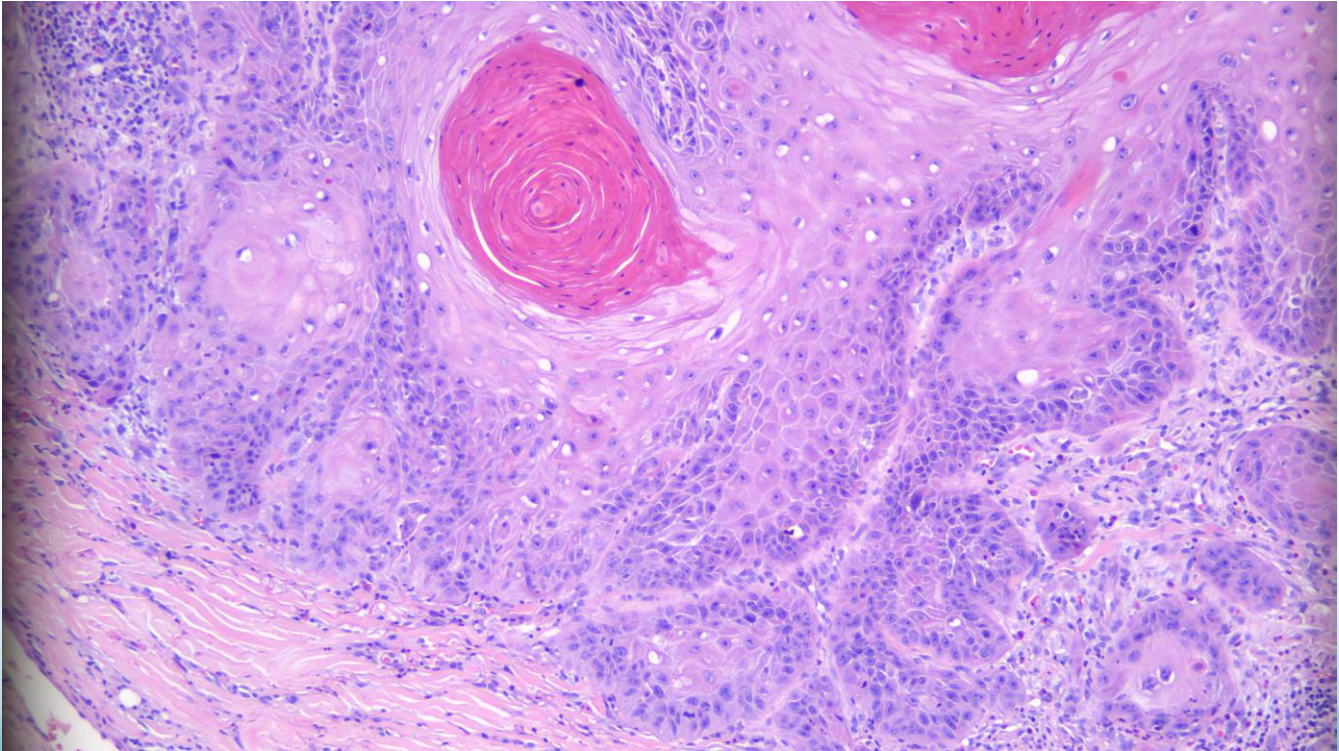
- Verrucous carcinoma – low grade

- Nasopharyngeal carcinoma
 - Keratinising squamous cell carcinoma
 - Non-keratinising squamous cell carcinoma
 - Undifferentiated carcinoma

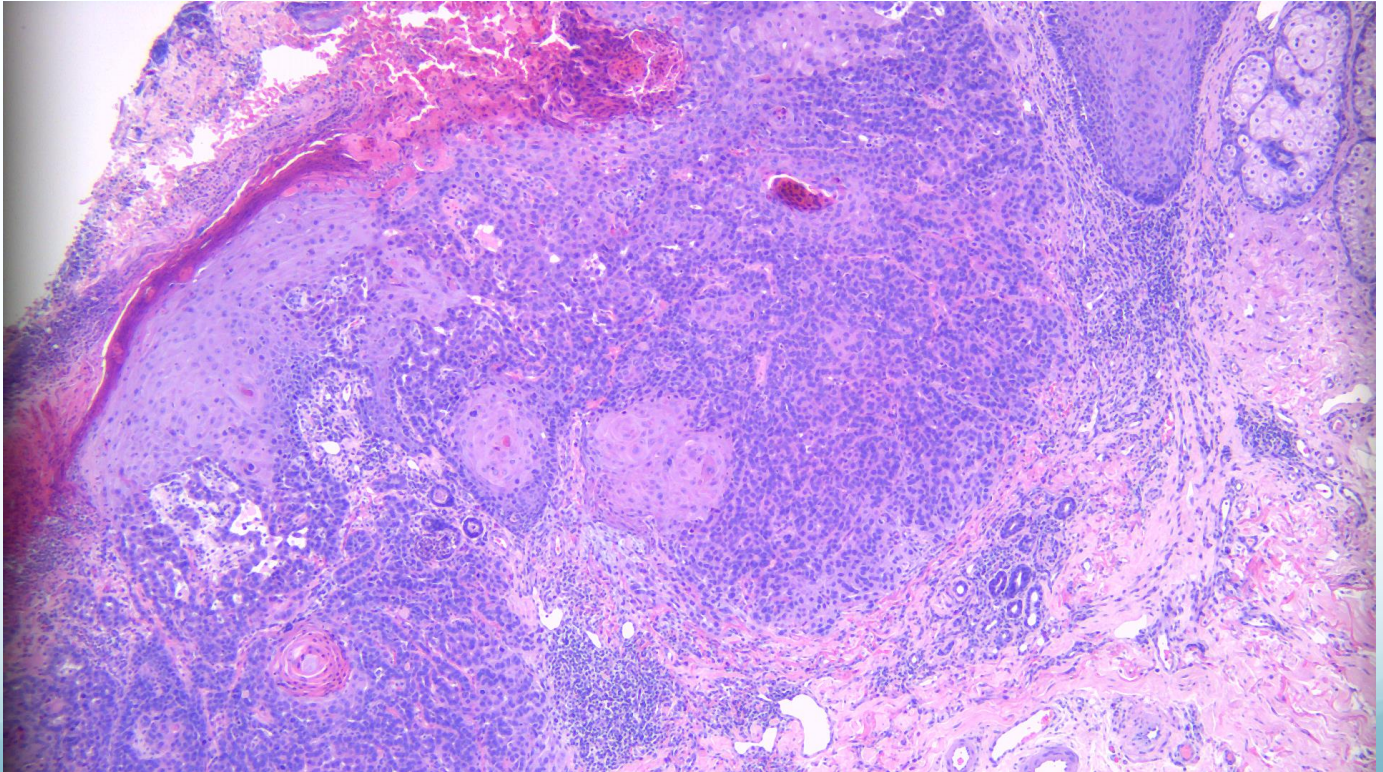
'SCC, well differentiated



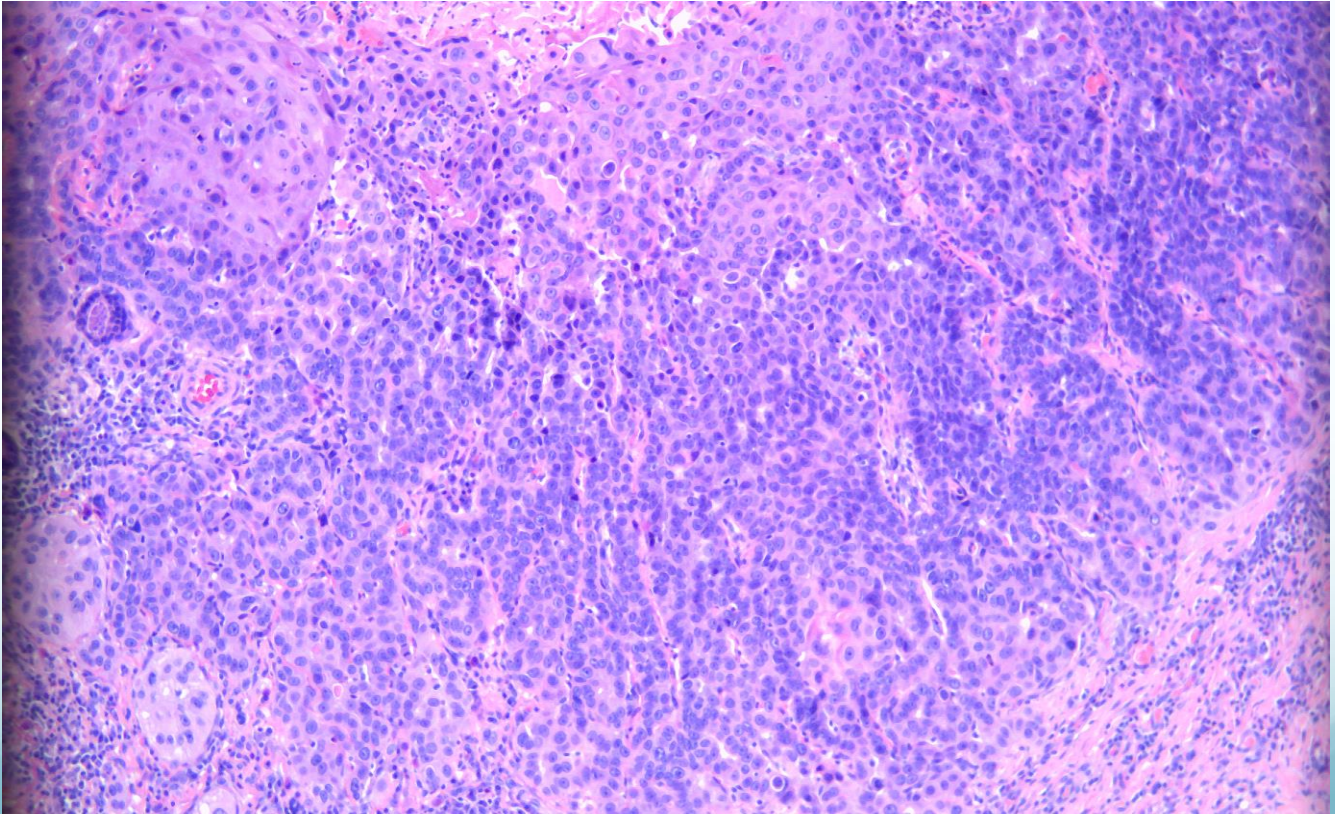
SCC, well differentiated



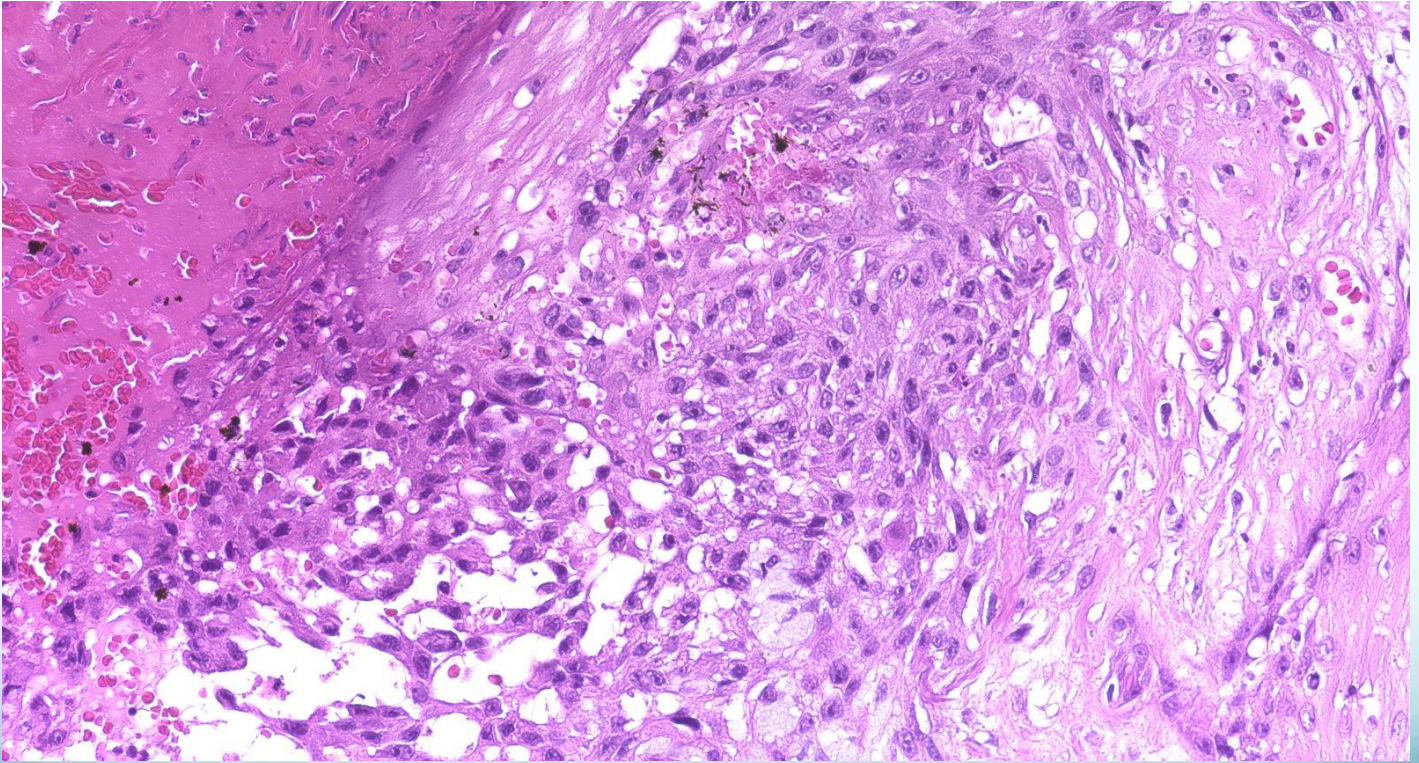
SCC, moderately differentiated



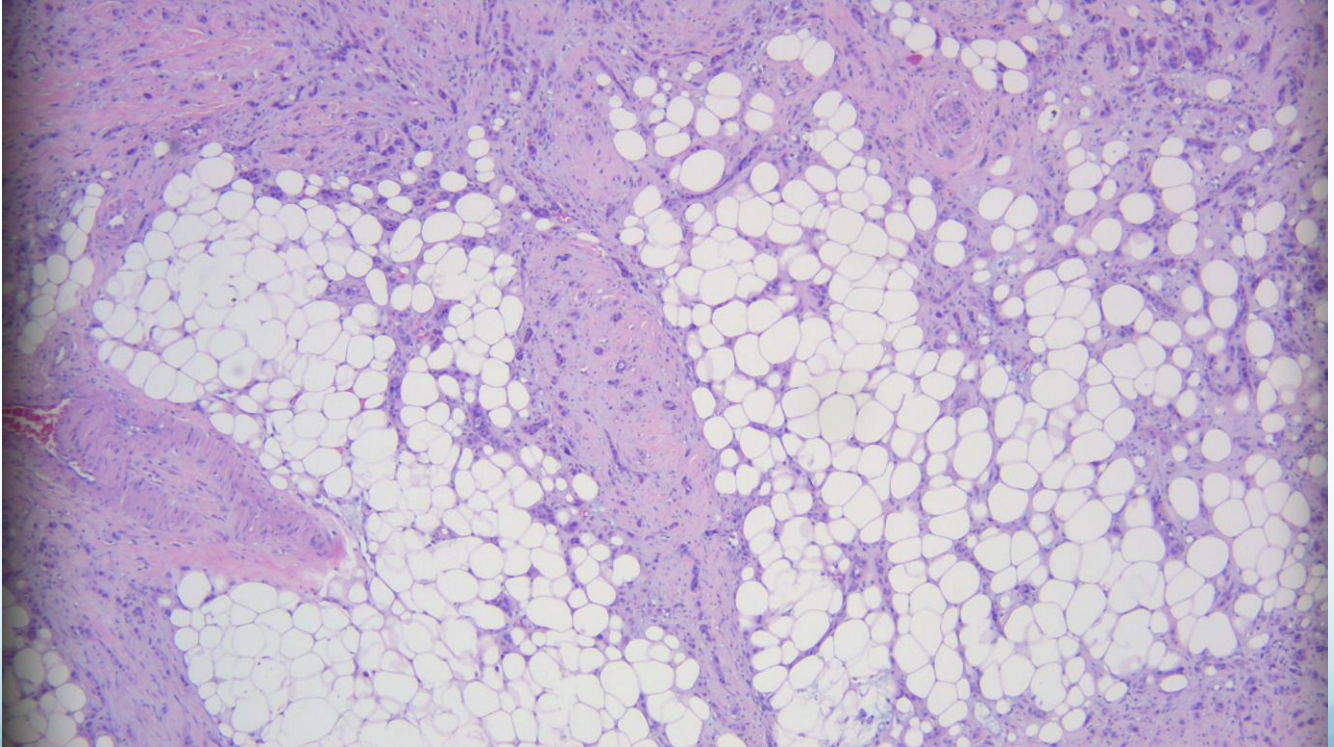
SCC, moderately differentiated



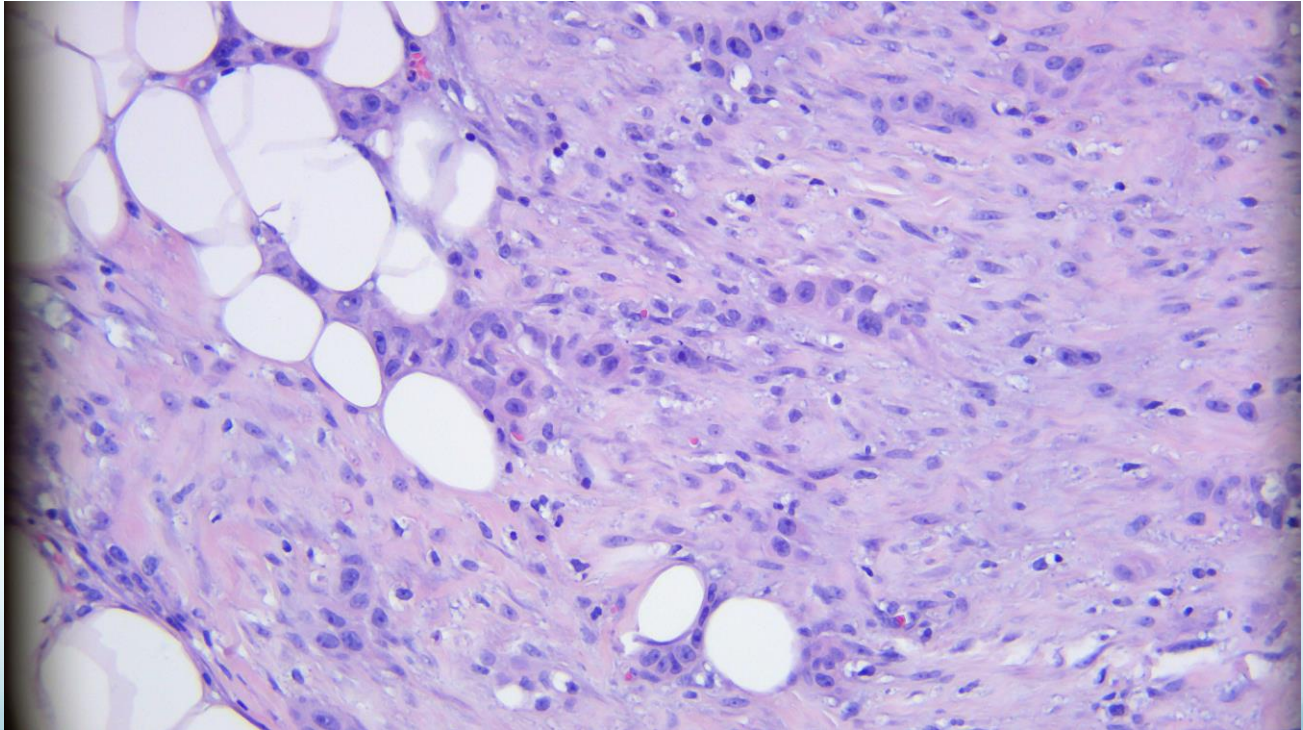
SCC, poorly differentiated



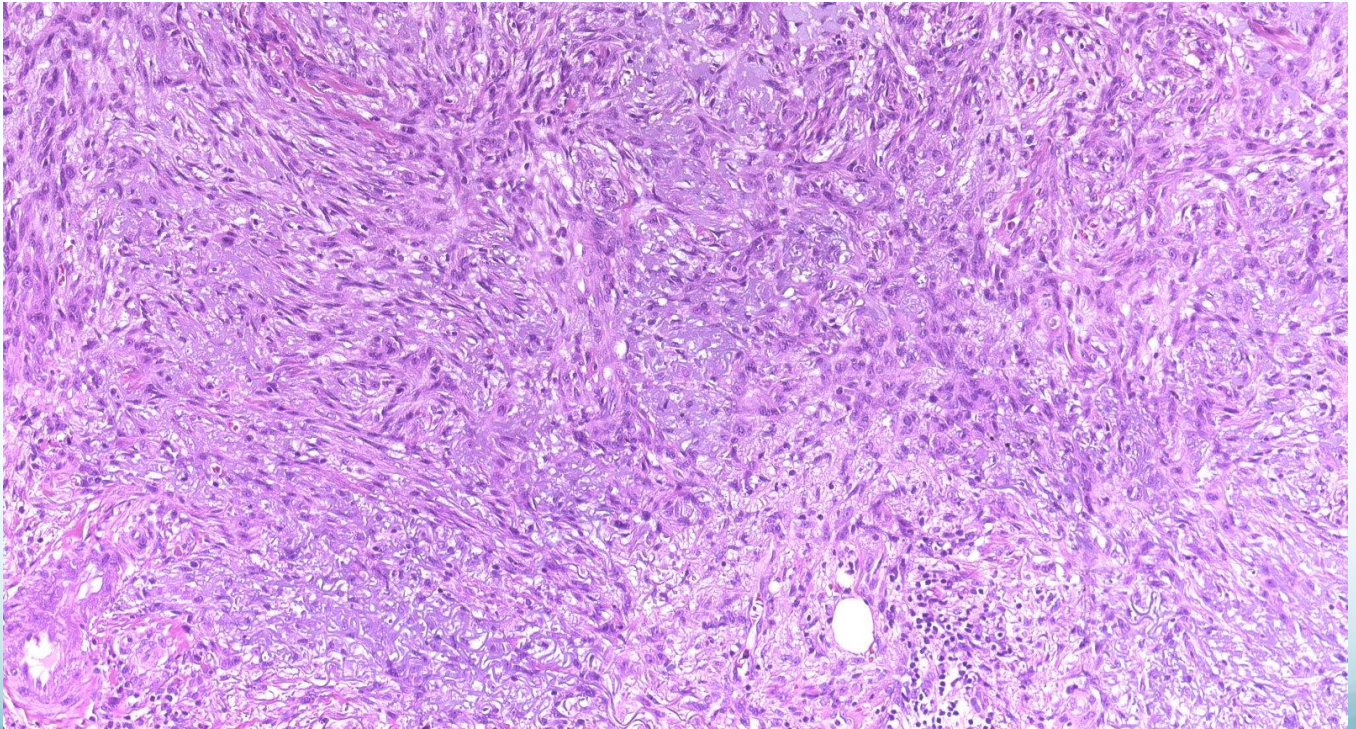
SCC, poorly differentiated



SCC, poorly differentiated



SCC, spindle cells

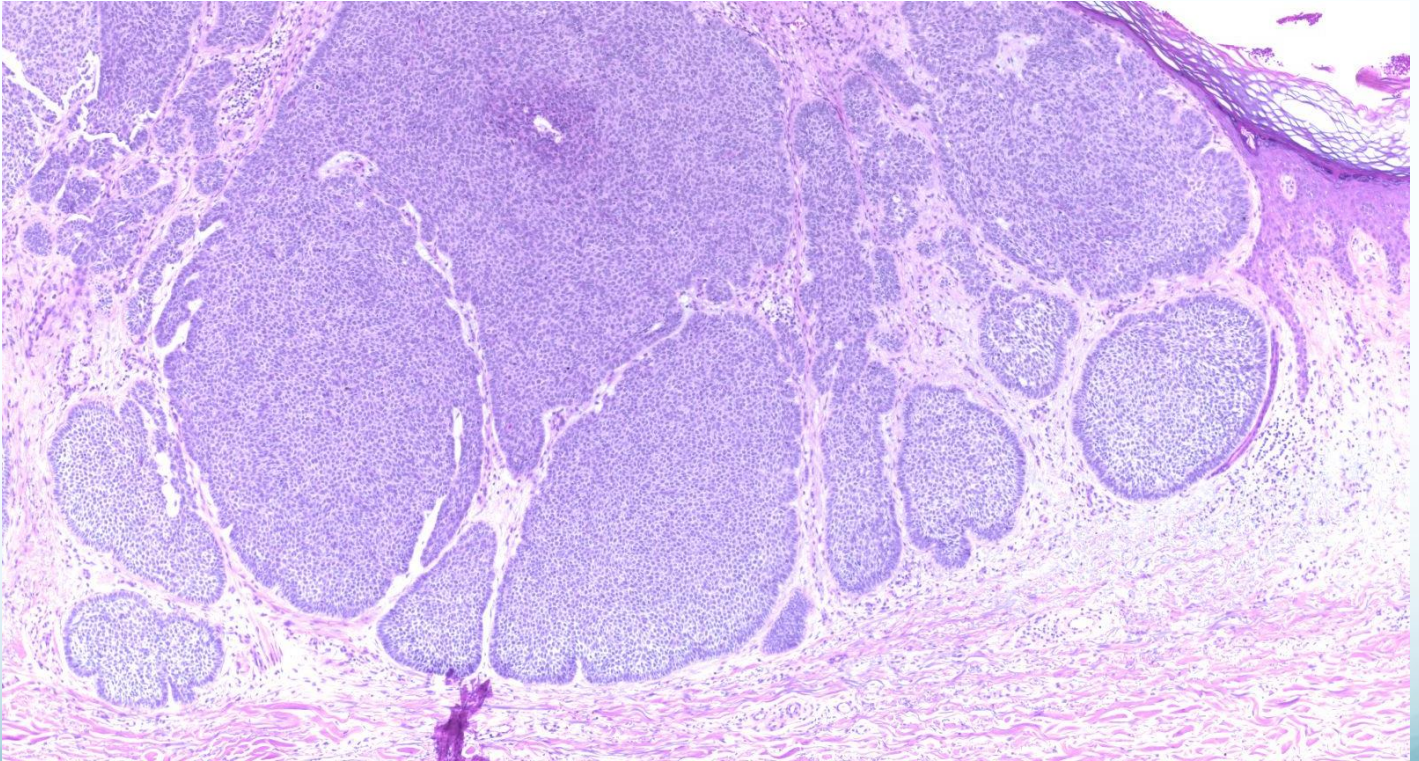


Basal cell carcinoma

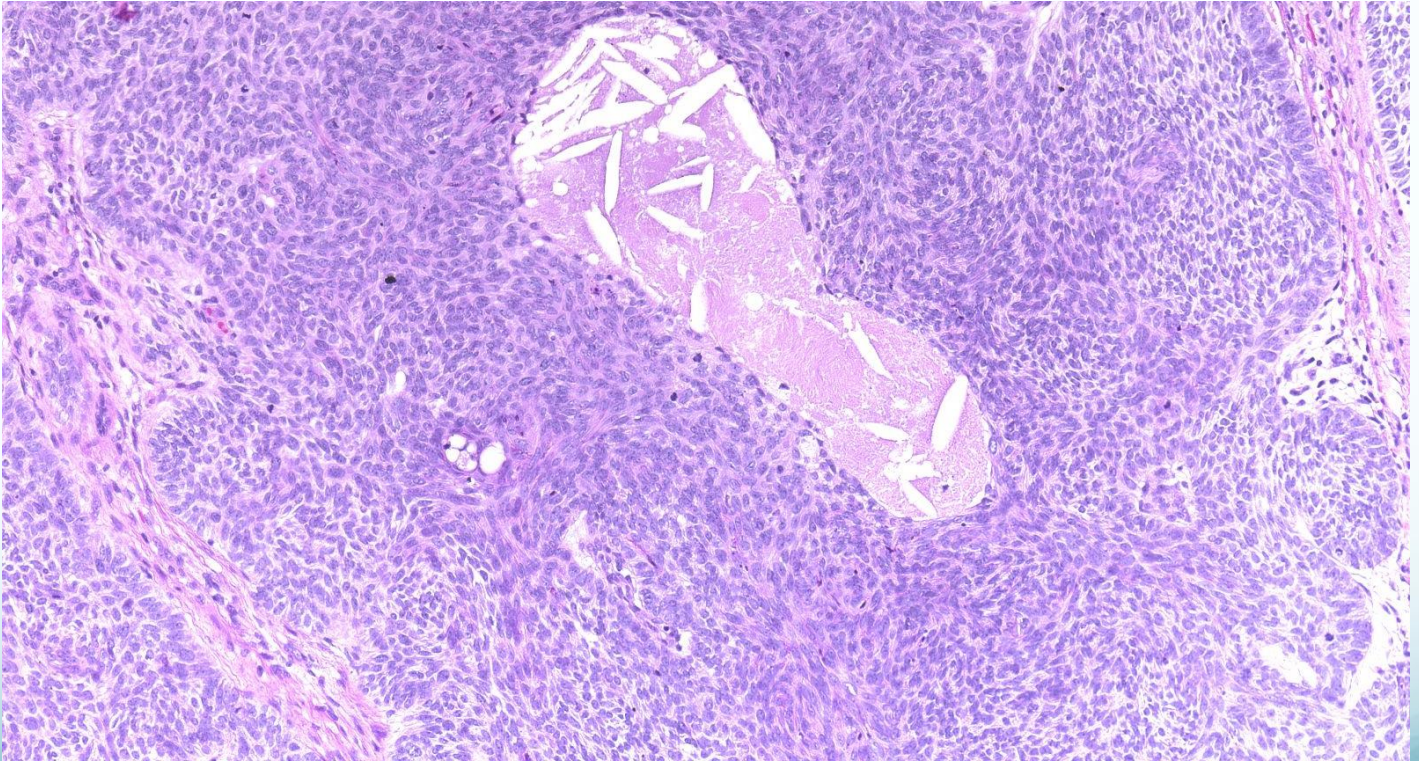
BCC - types

- Superficial
- Nodular
- Micronodular
- Infiltrative
- Morphoeic

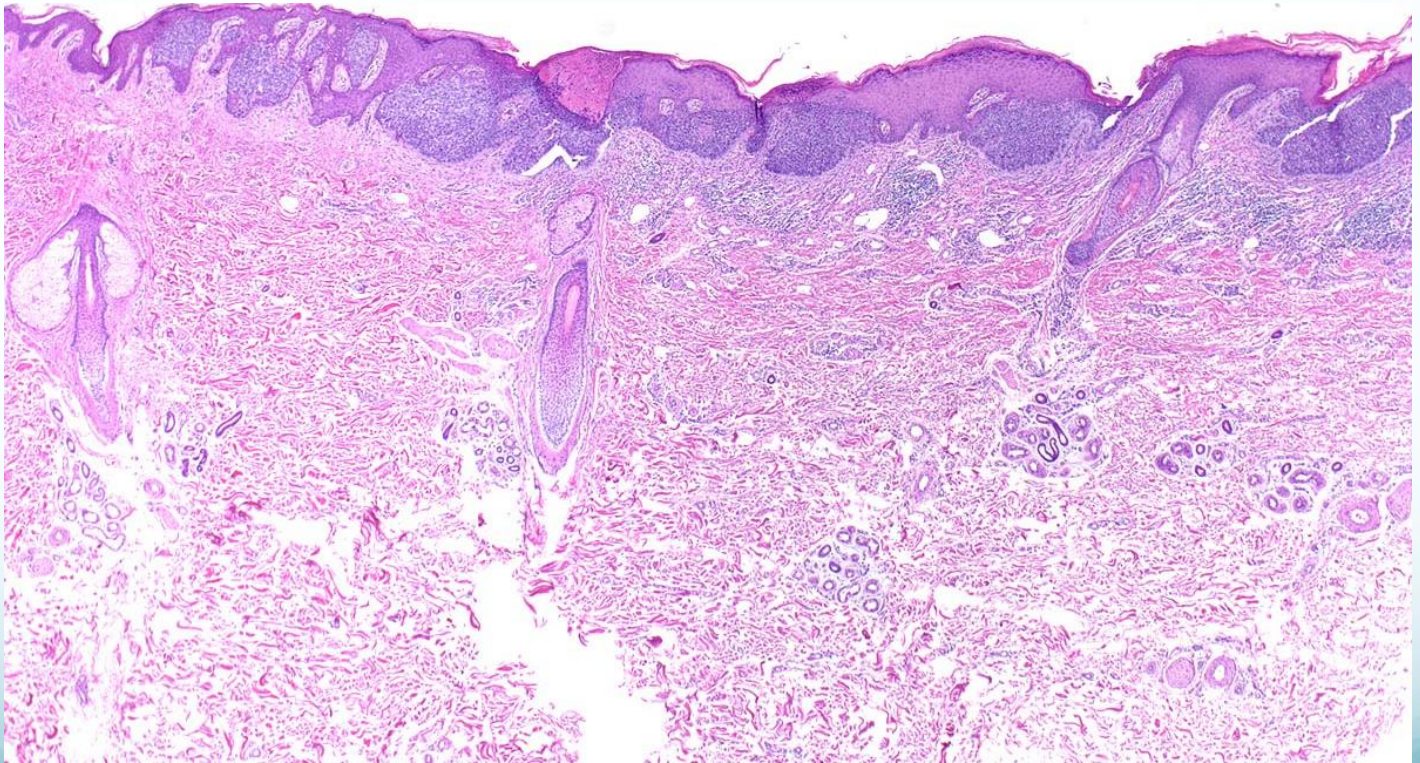
BCC, nodular



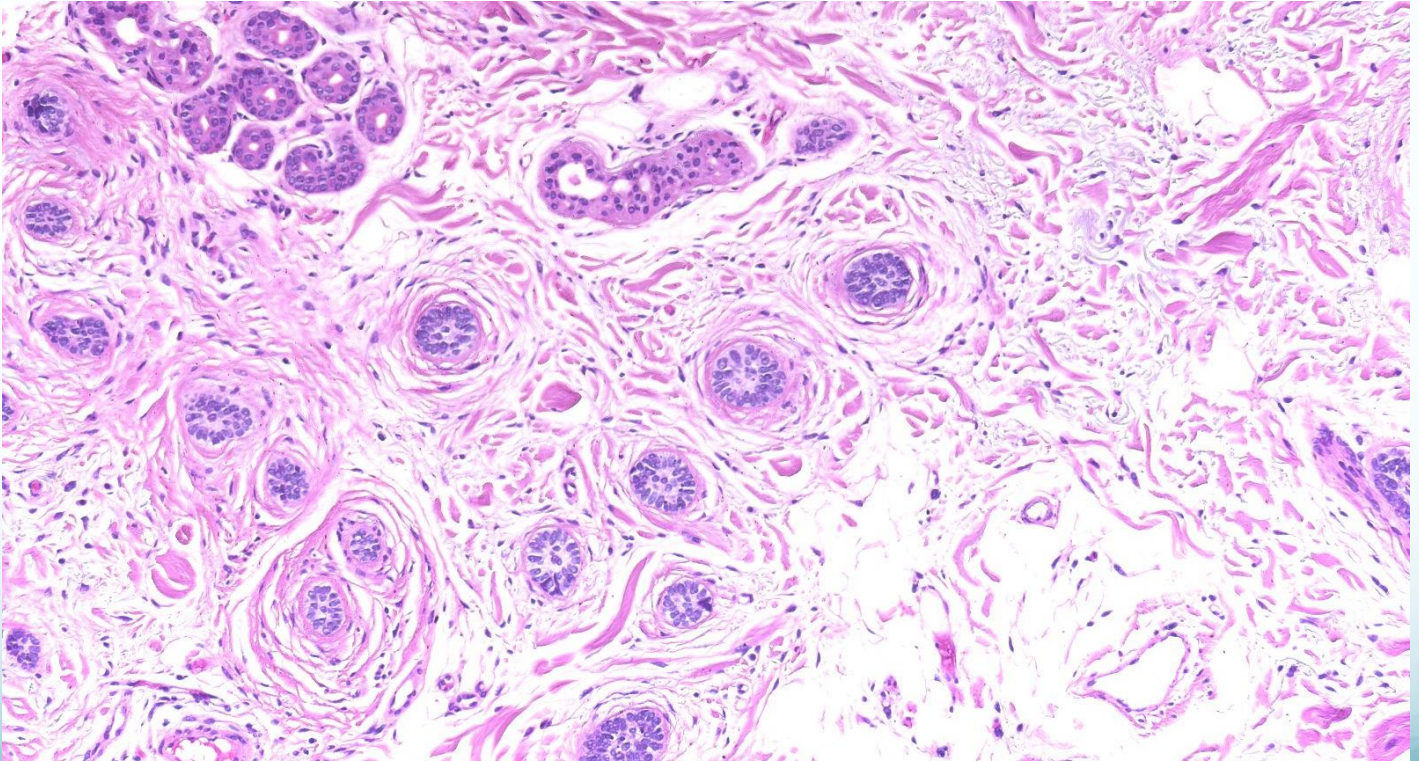
BCC, nodular



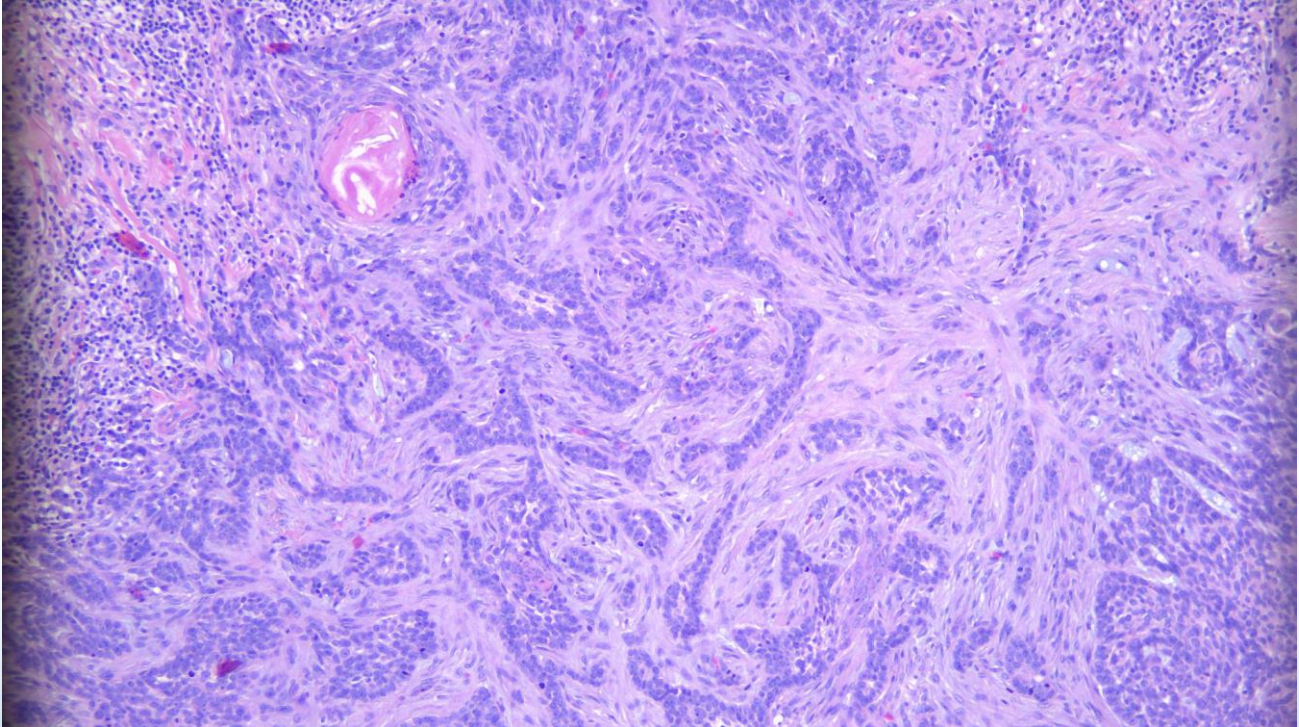
BCC, superficial



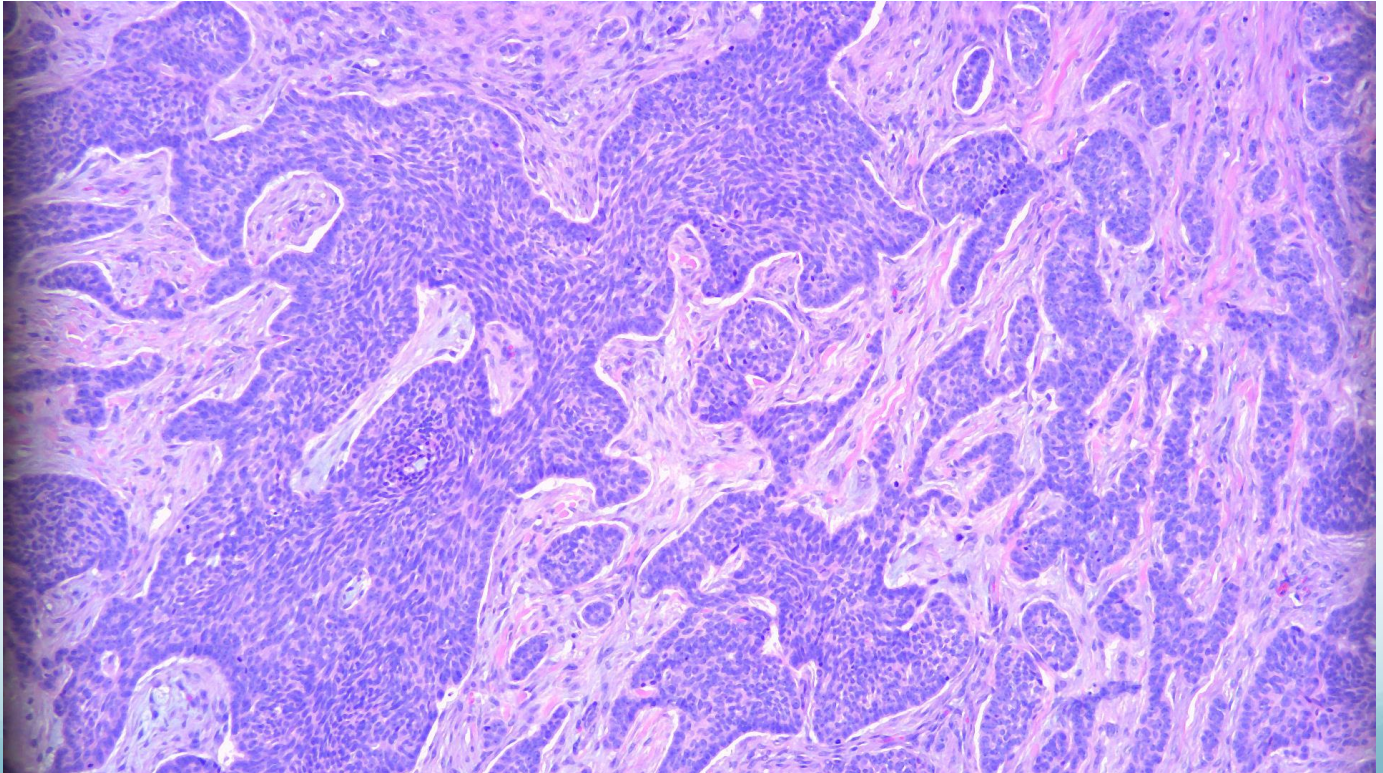
BCC, micronodular



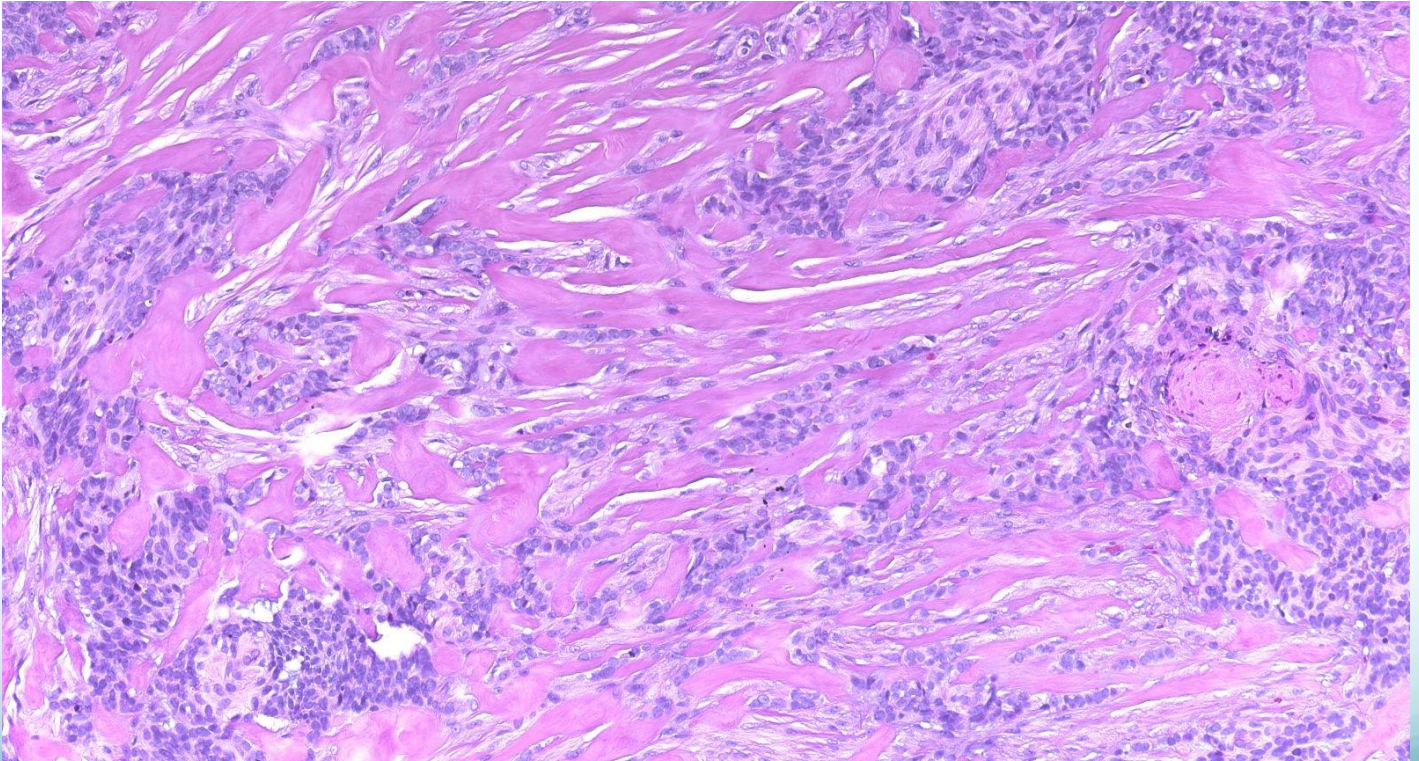
BCC, infiltrative



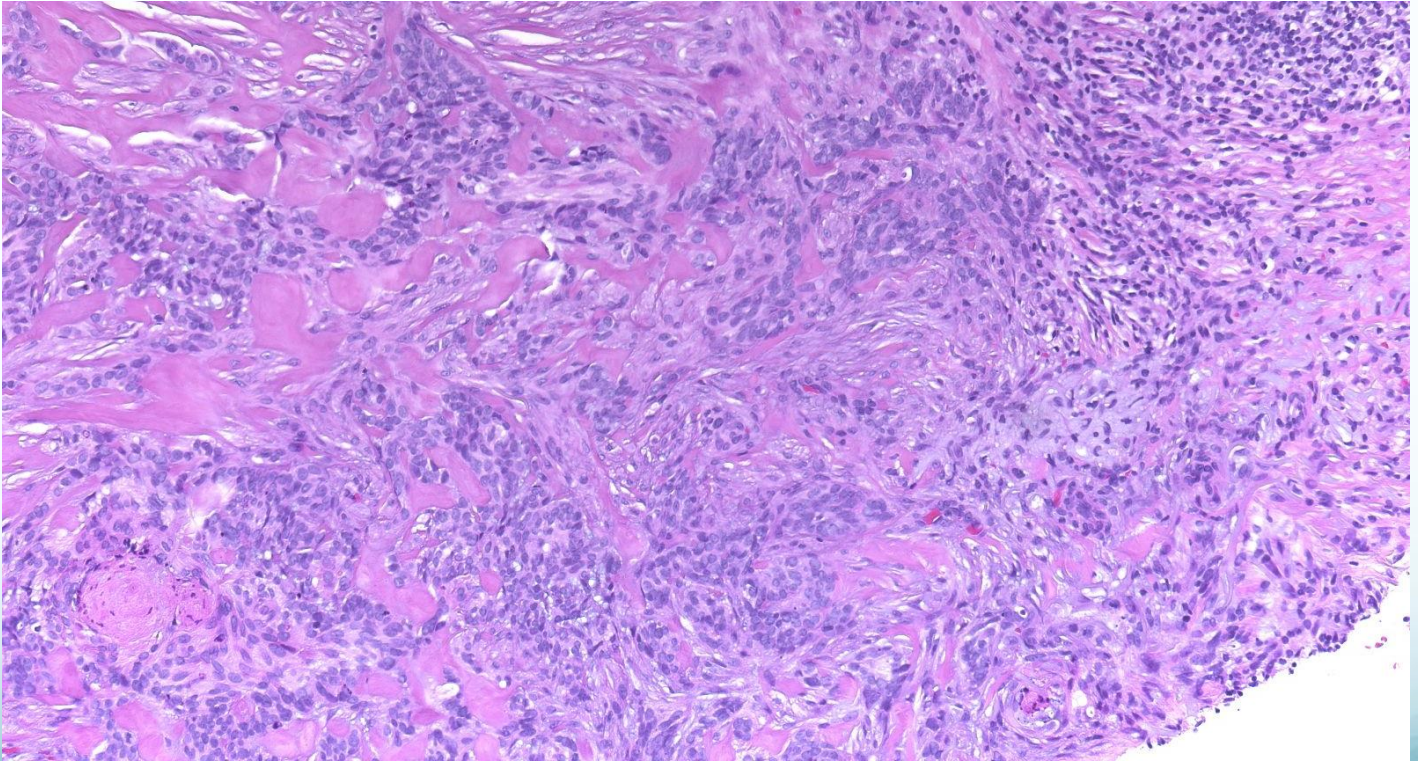
BCC, infiltrative



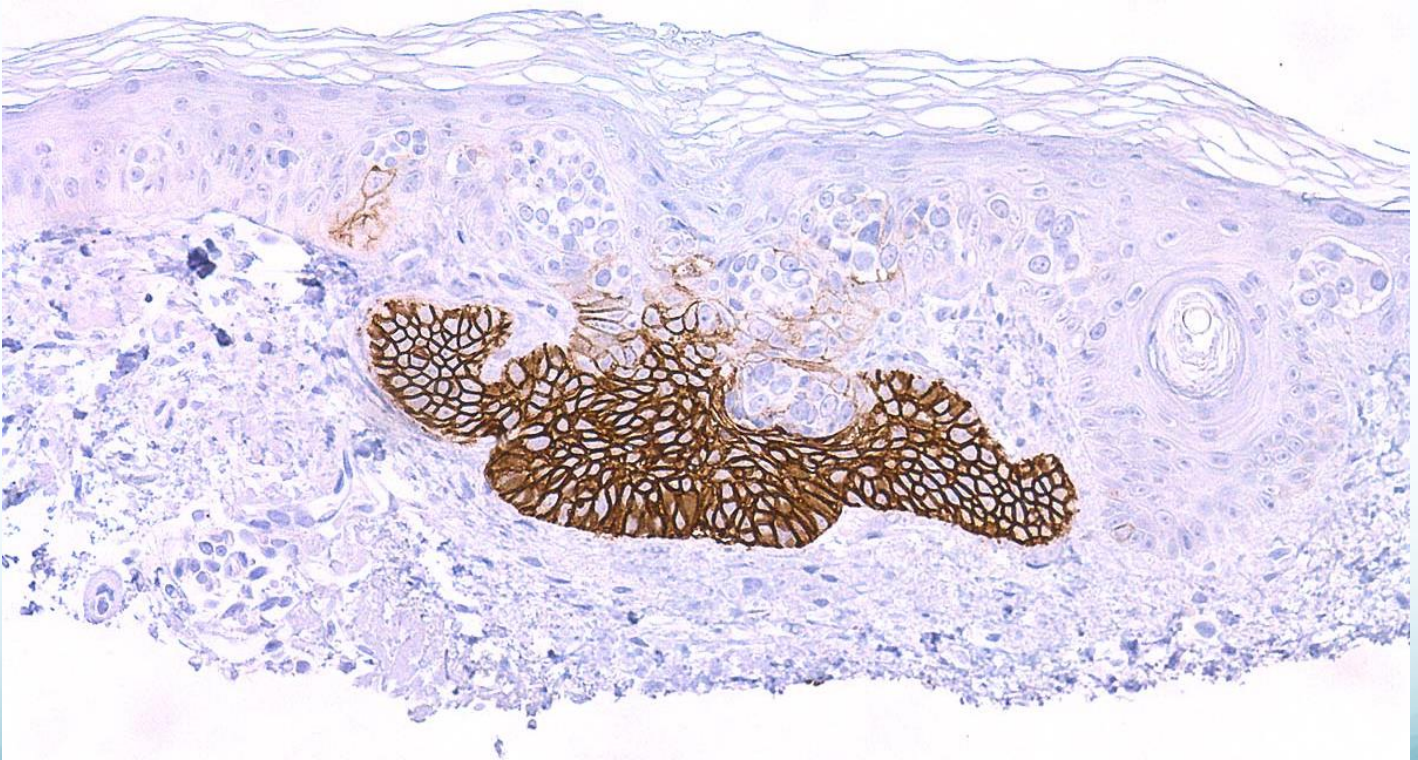
BCC, morphoeic



BCC, morphoeic



BCC, Ber-Ep4

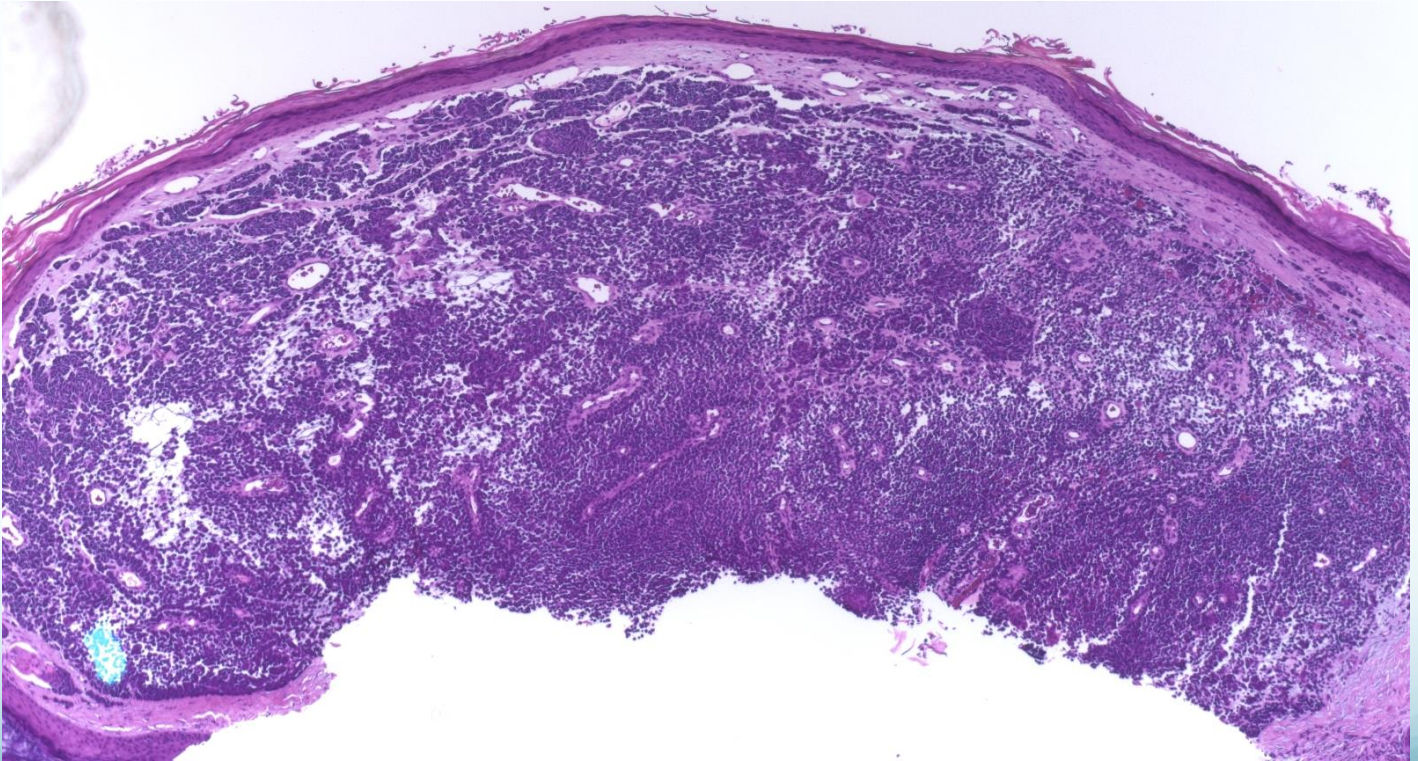


Merkel cell carcinoma

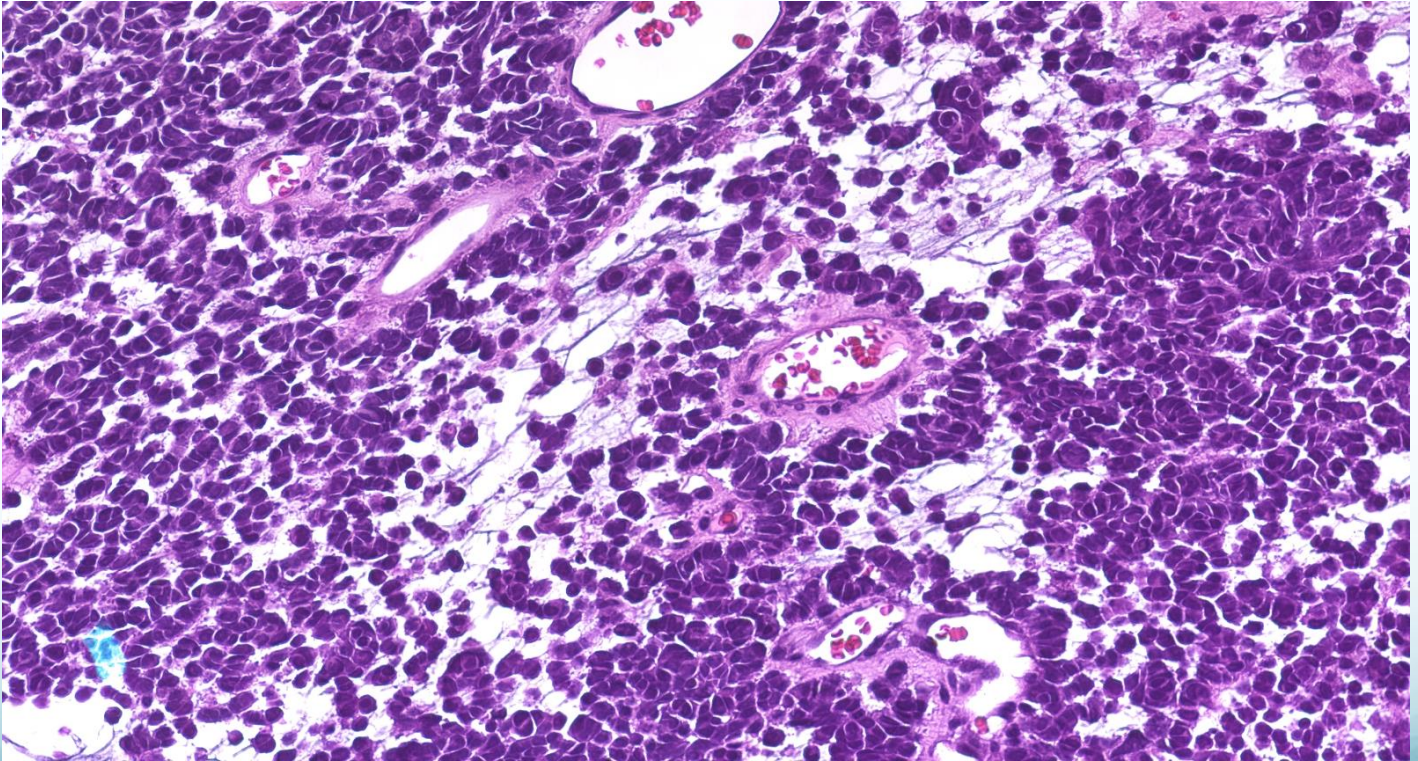
Merkel cell carcinoma - histology

- Small blue cell tumour in the dermis.

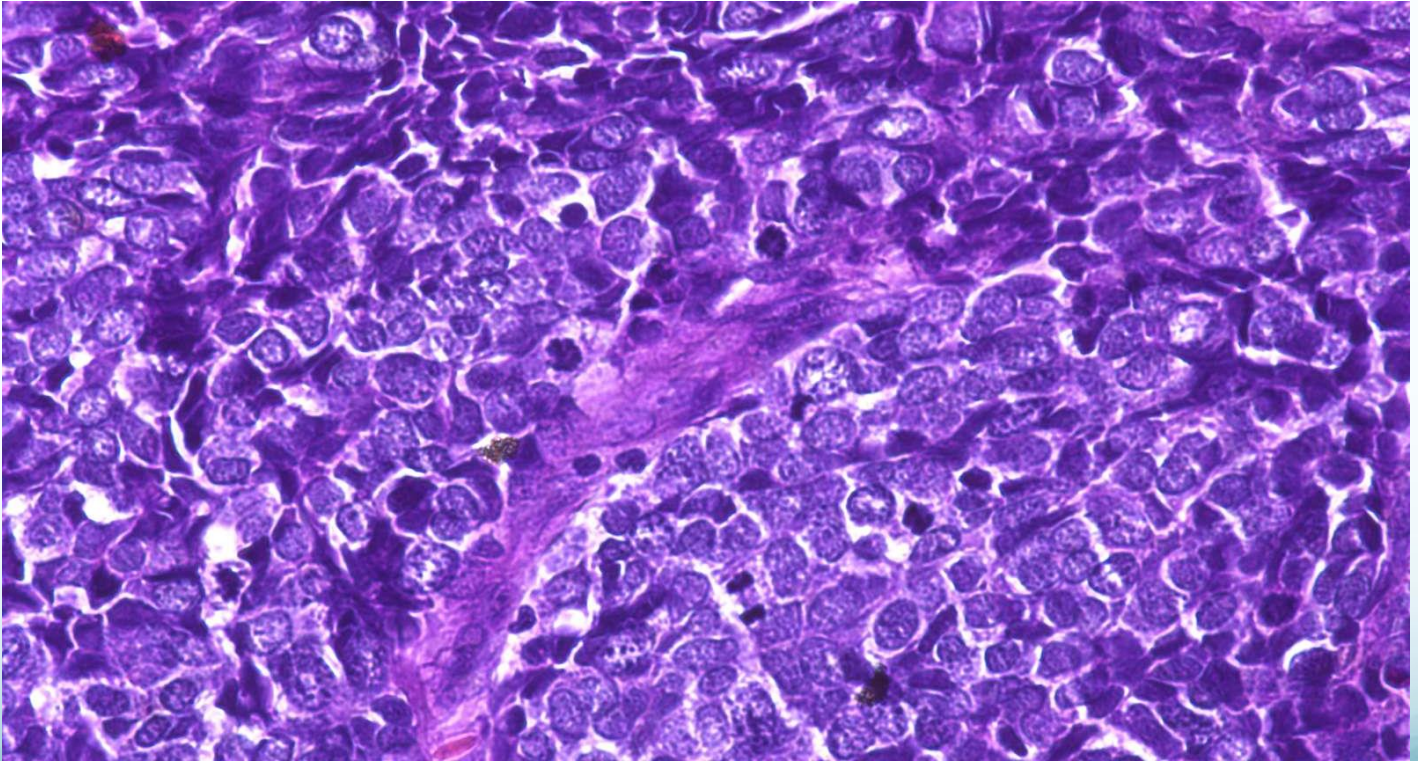
MCC



MCC



MCC



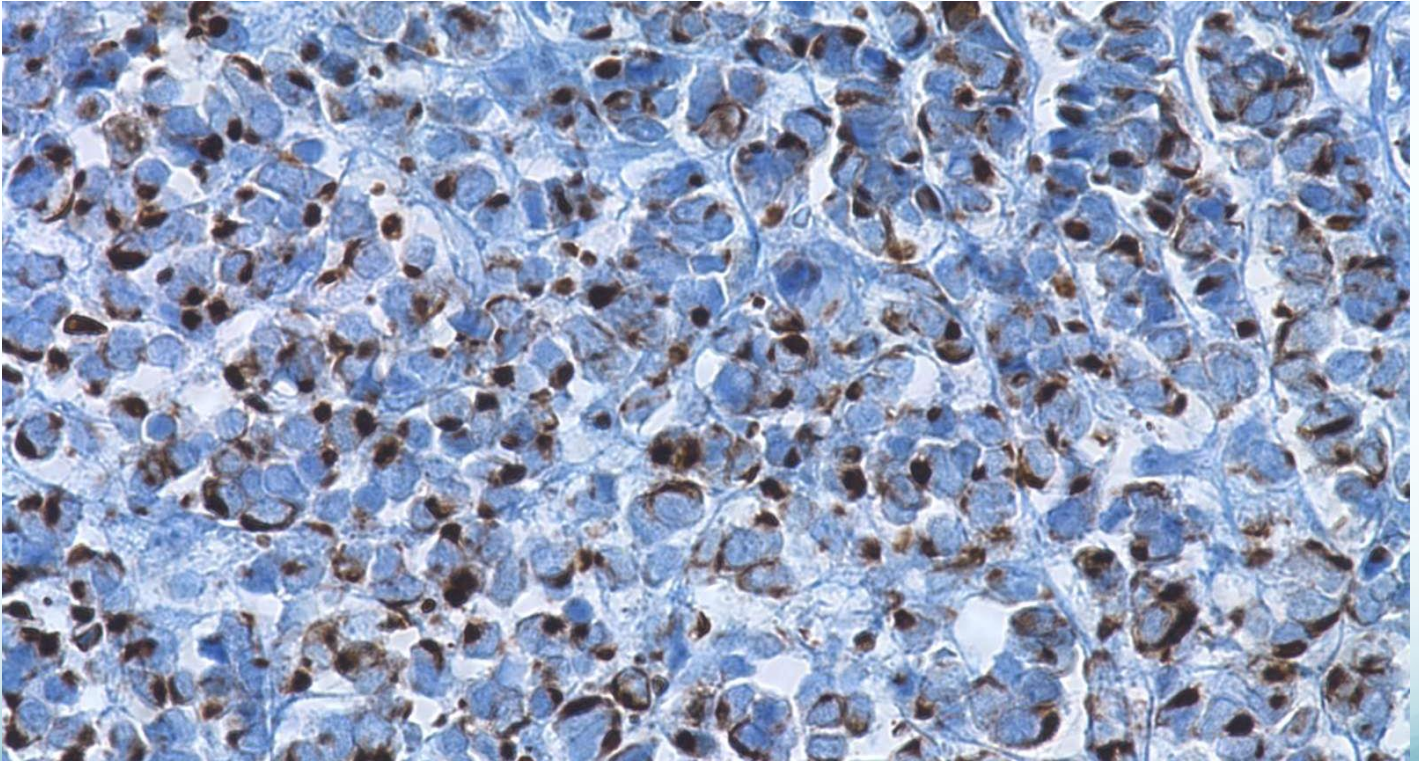
Merkel cell carcinoma, Histological DDx

- Metastatic small cell carcinoma – histologically identical
- Basal cell carcinoma
- Lymphoma
- Melanoma

Merkel cell carcinoma vs Small cell ca.

IHC	Merkel cell carcinoma	Small cell carcinoma
Cytokeratin 20	+	-
Cytokeratin 7	-	+
TTF-1	-	+
Neurofilament	+	-

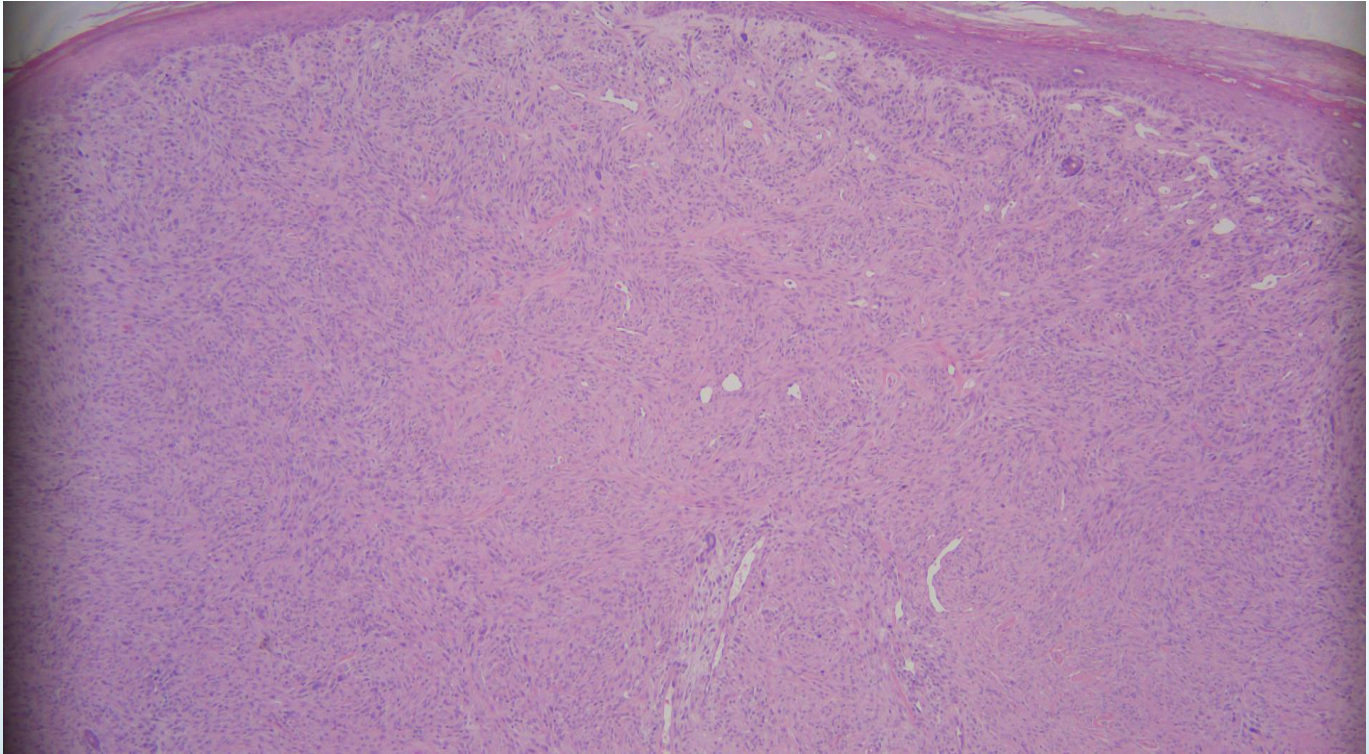
MCC, CK20

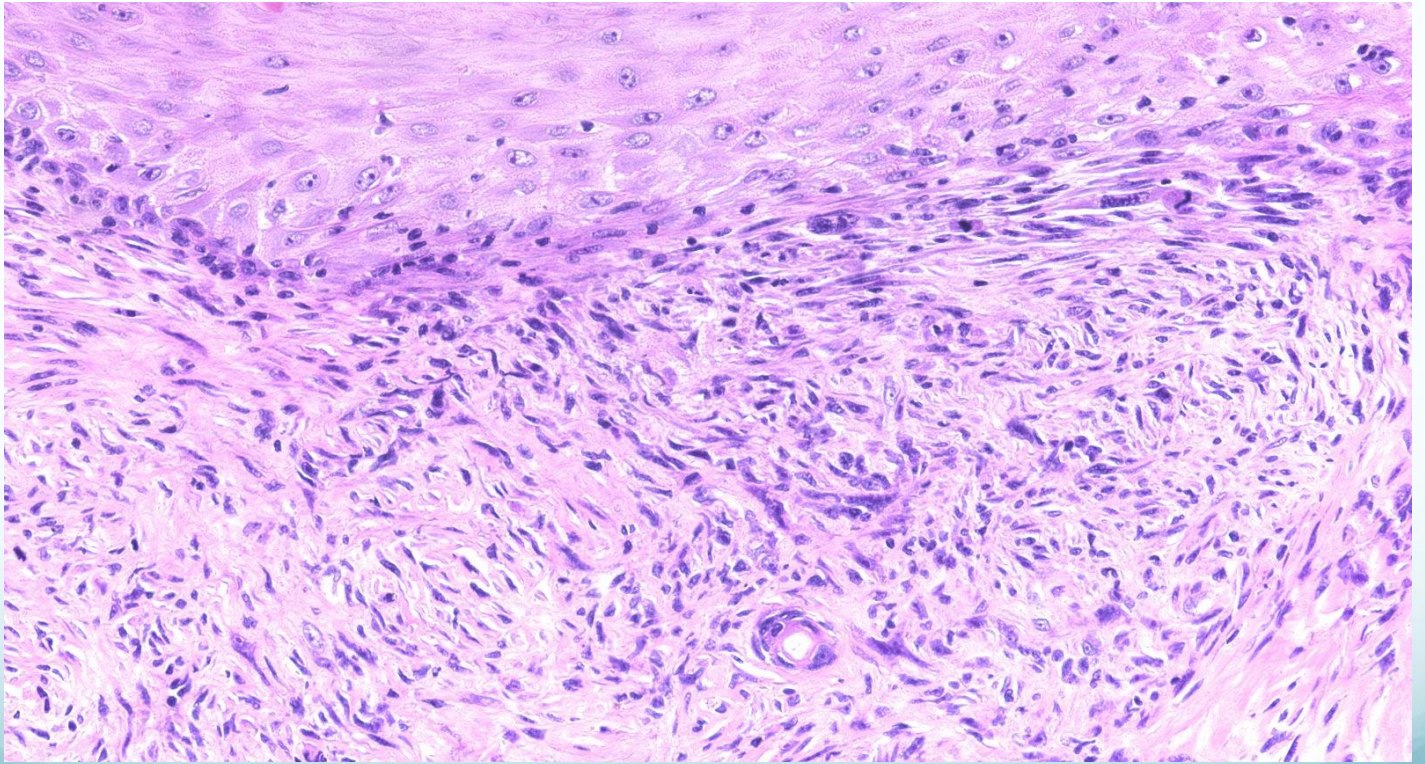


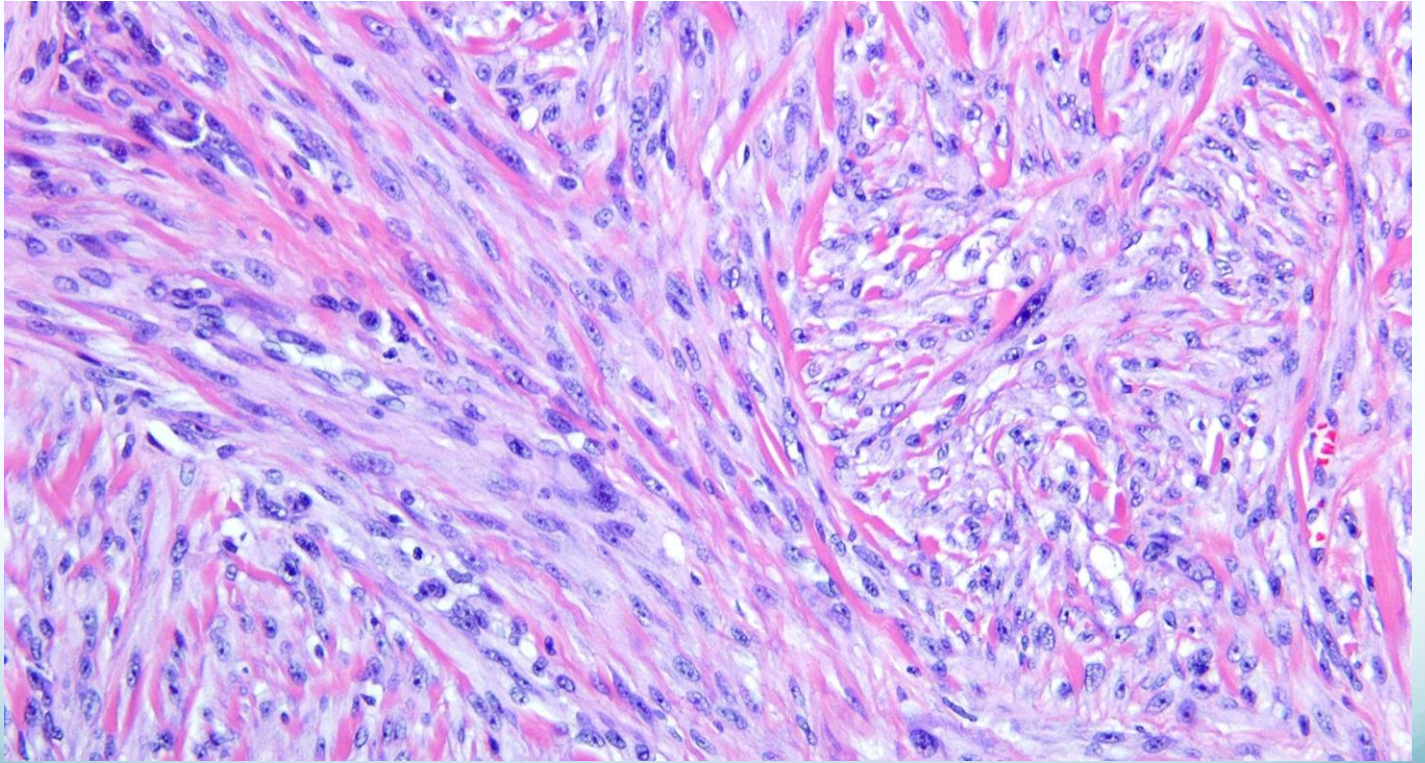
Atypical fibroxanthoma

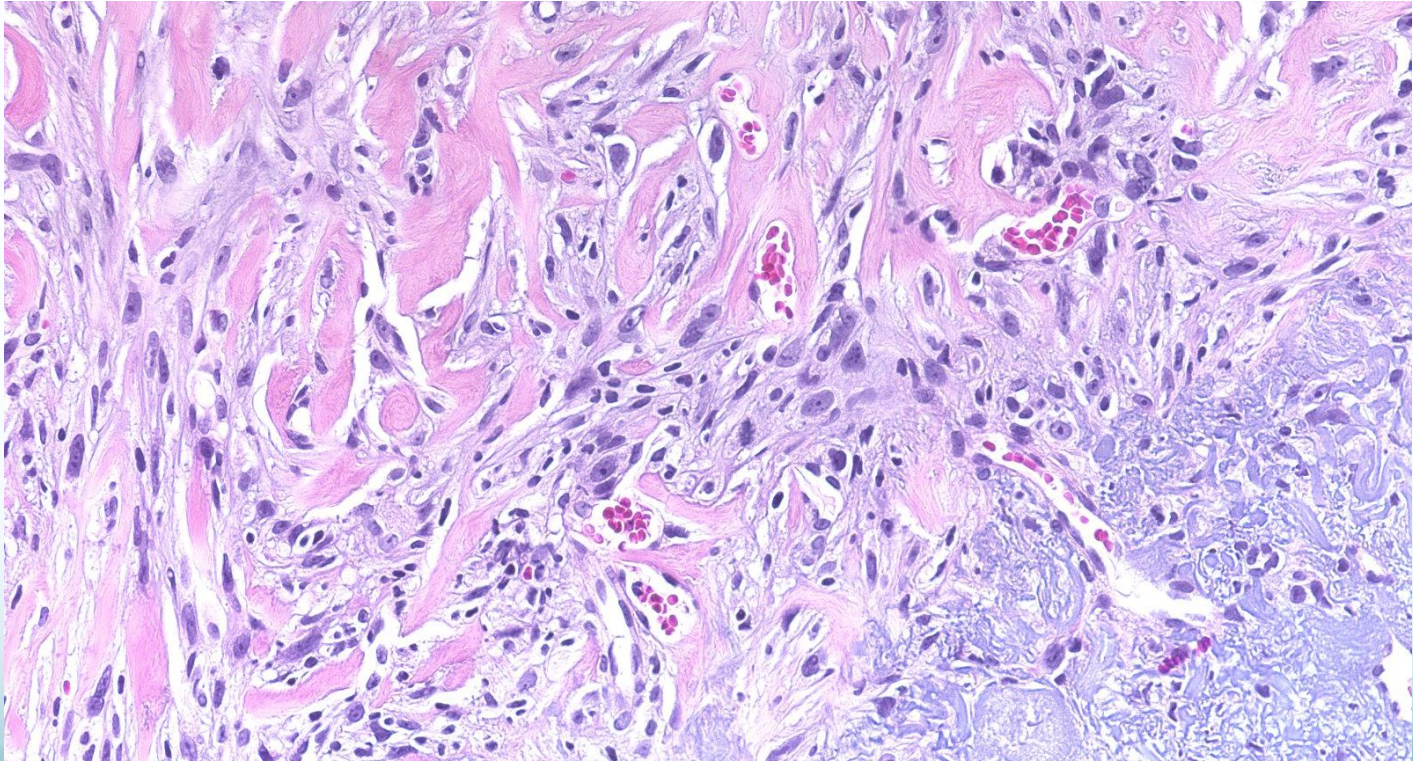
AFX histological features

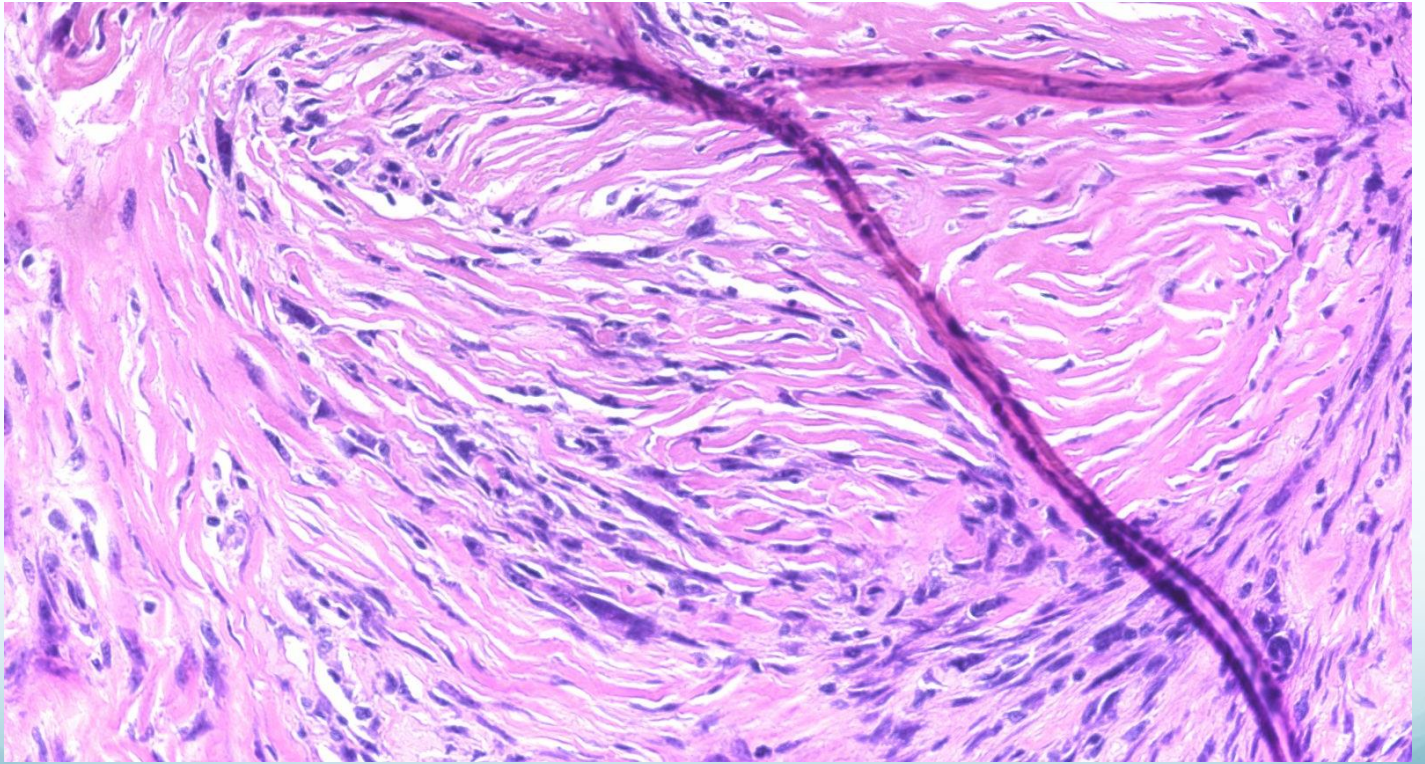
- Malignant spindle and epitheloid cells
- Variable multinucleate giant cells
- Variable collagenous stroma
- Frequent mitoses
- Dermal location

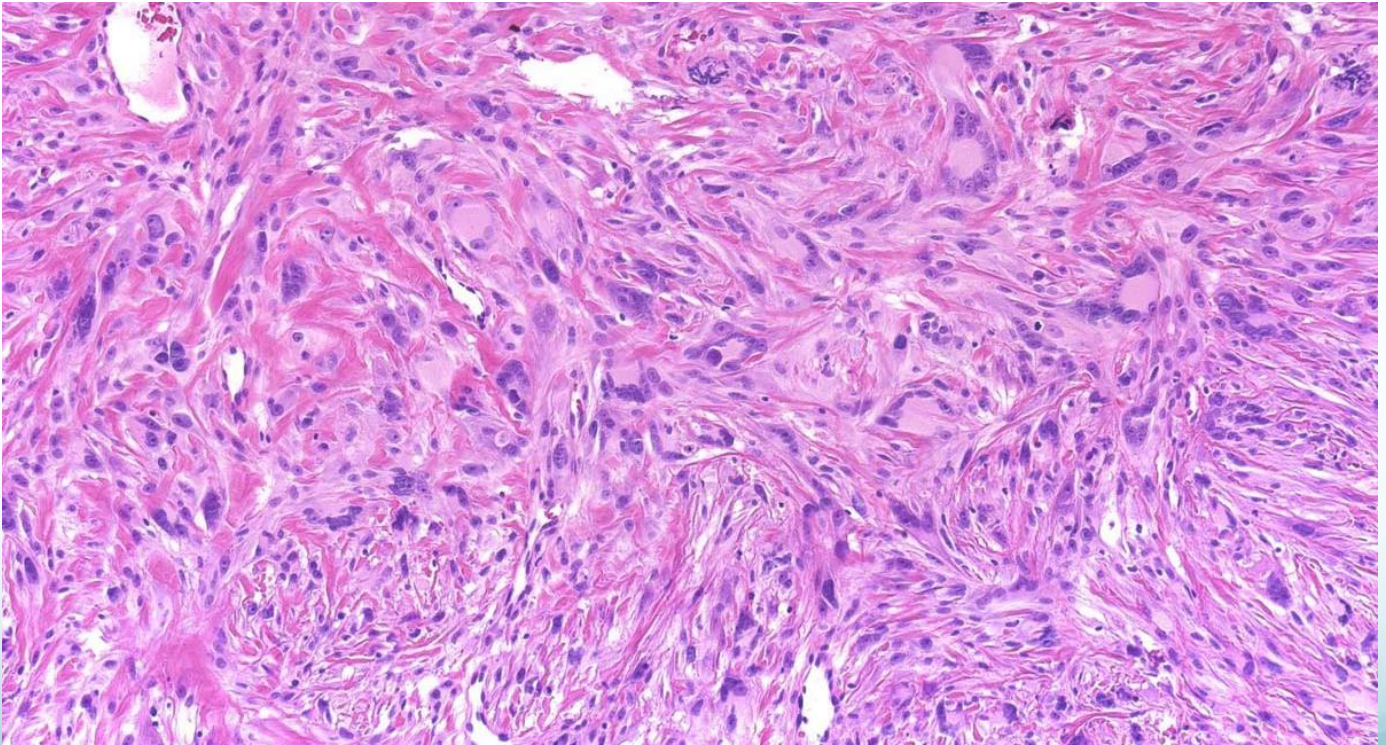


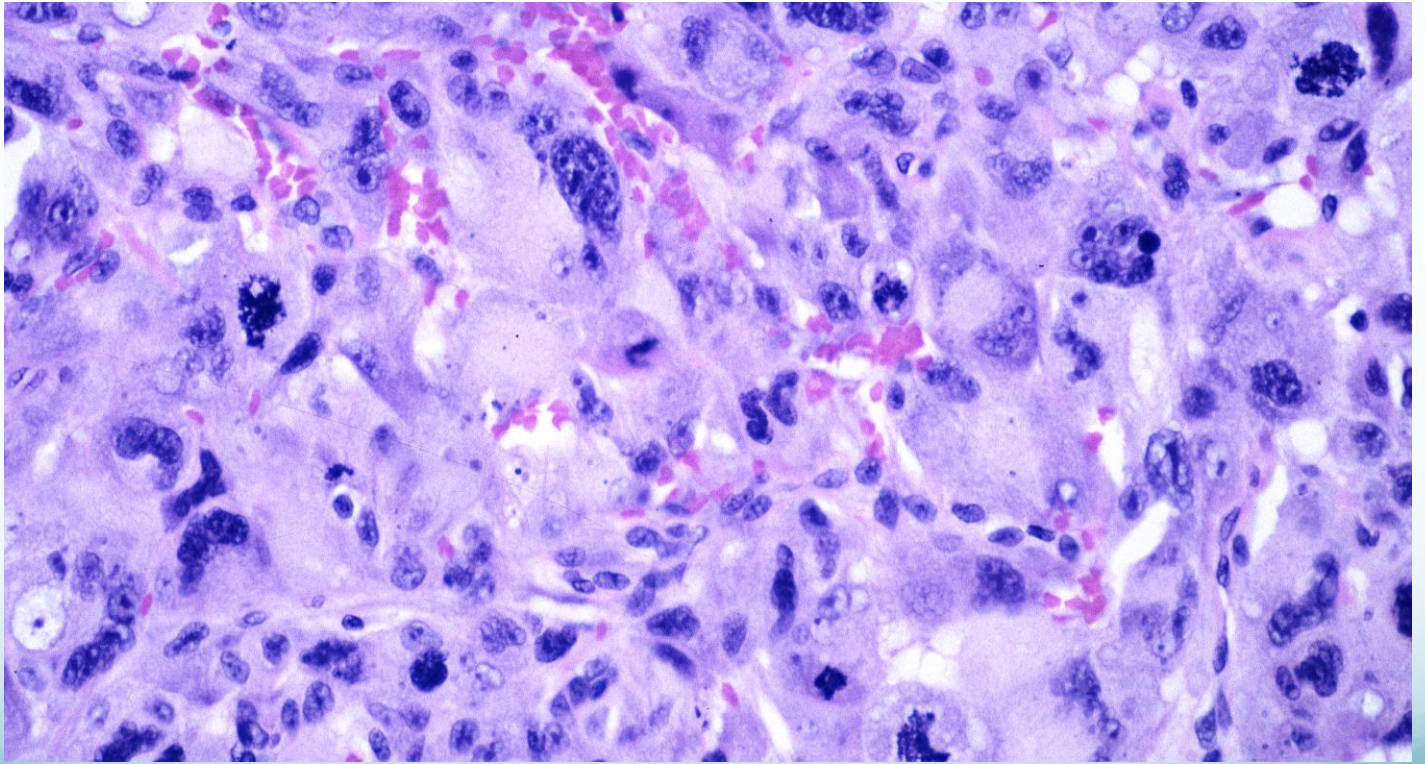










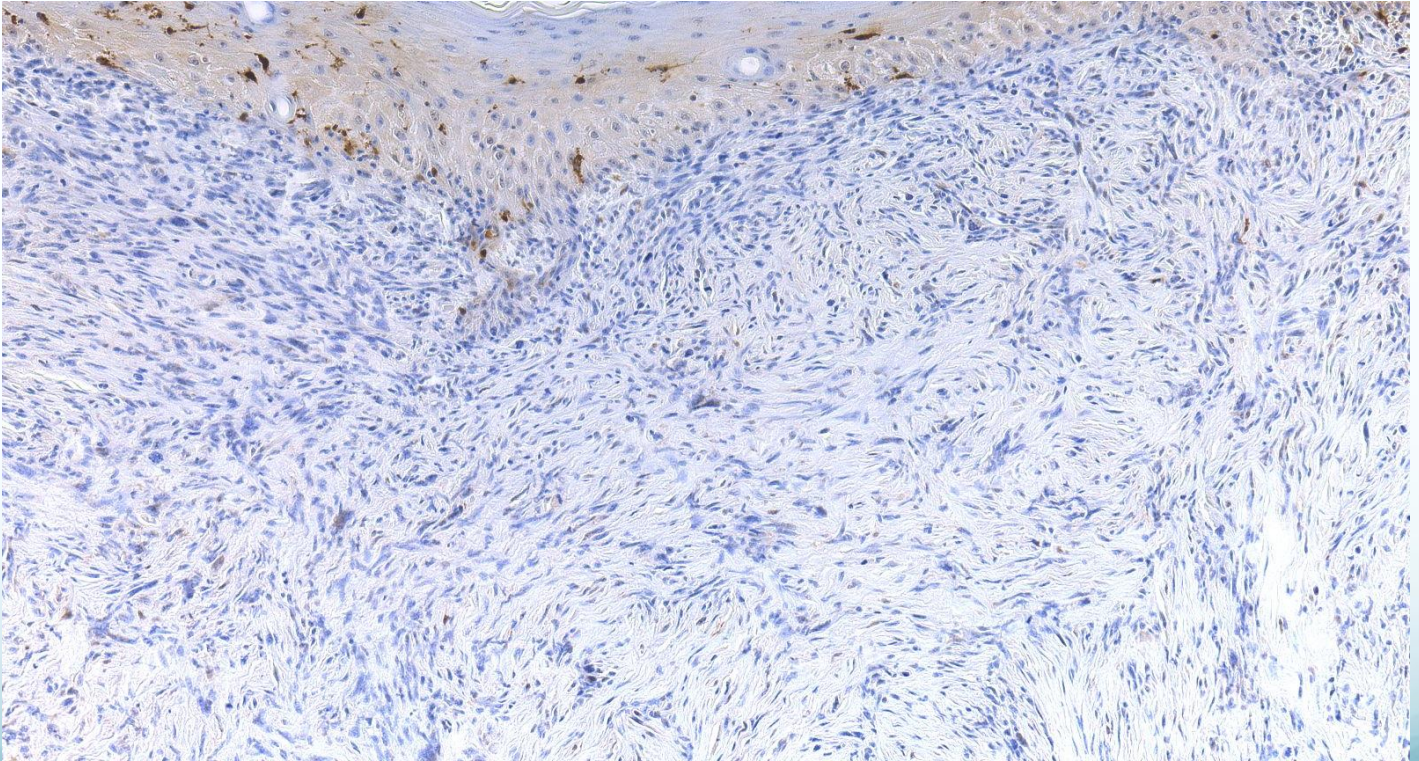


AFX – histological DDx

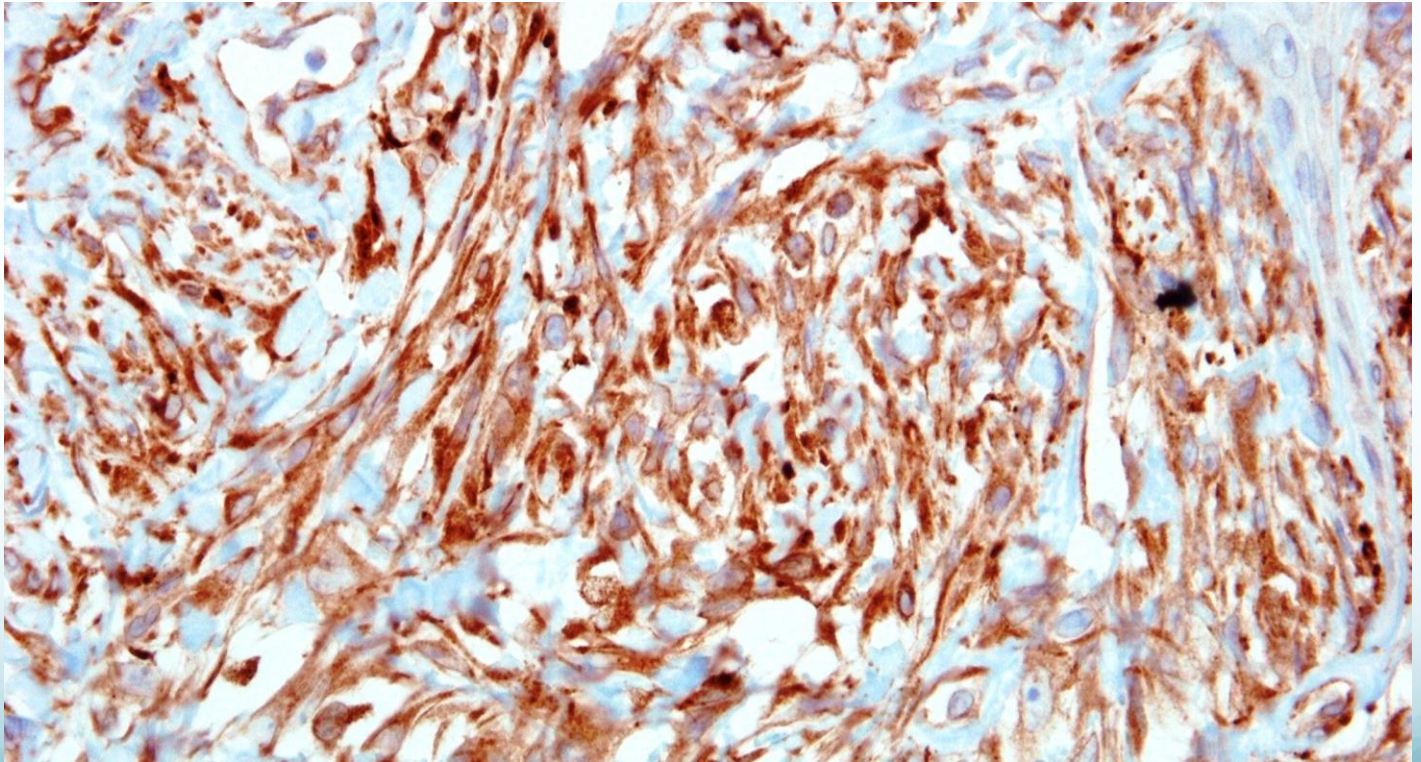
- Poorly differentiated spindle SCC
- Melanoma
- Leiomyosarcoma
- MFH/Pleomorphic sarcoma

	AFX	SCC	MM	Leiomyosarc
Cytokeratin	-	+	-	-
S100	-	-	+	-
MelanA	-	-	+/-	-
actin	-/+	-	-	+
desmin	-	-	-	+
CD10	+	-	-	-
CD68	+	-	-	-

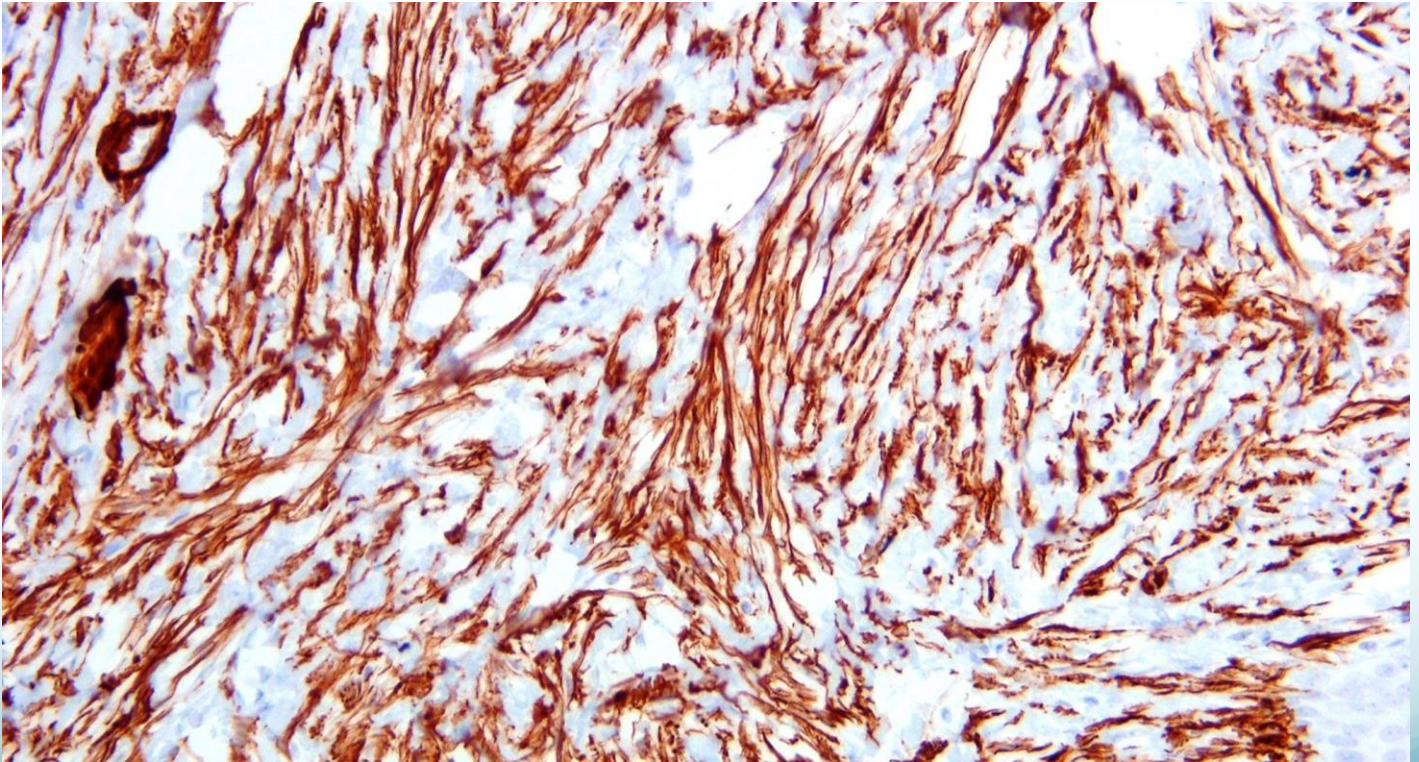
AFX, S100



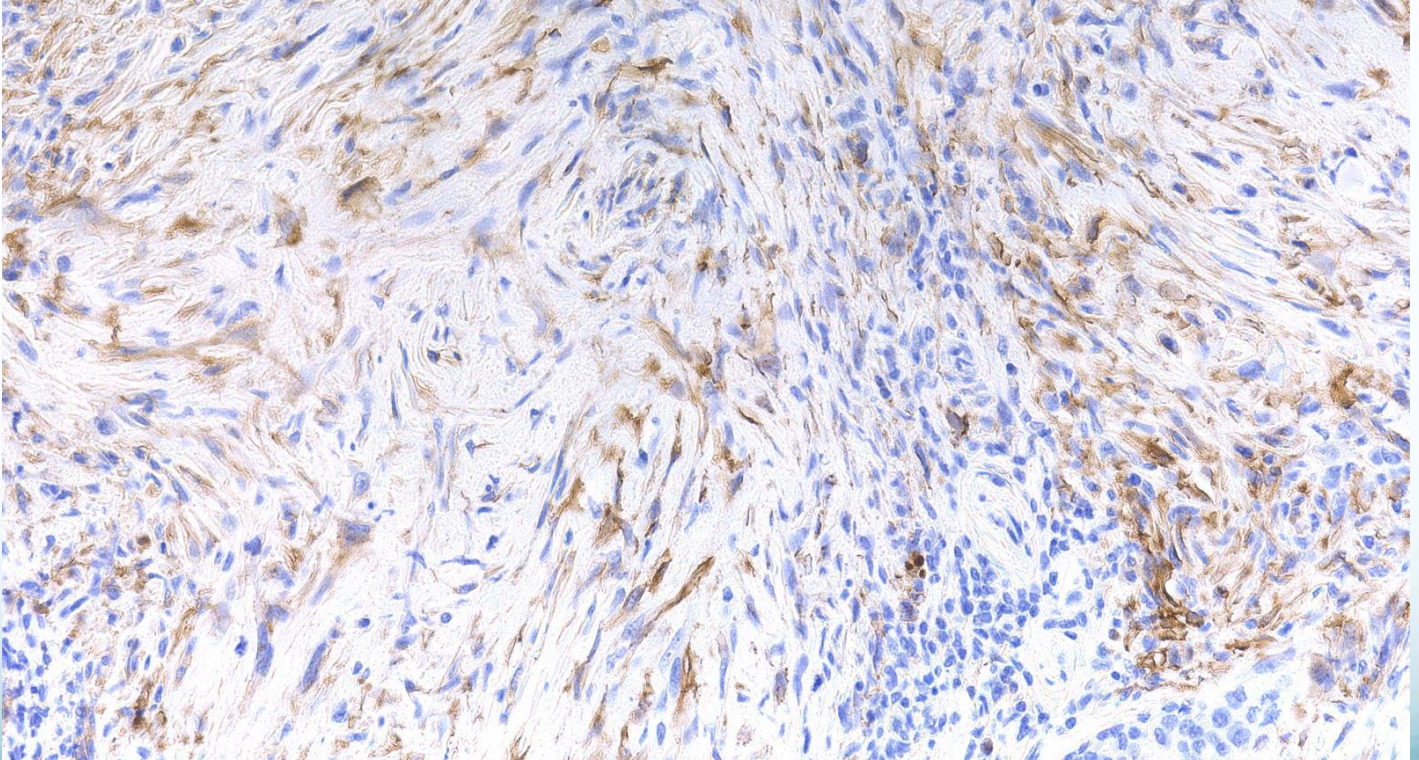
AFX – CD68



AFX – actin



AFX – CD10

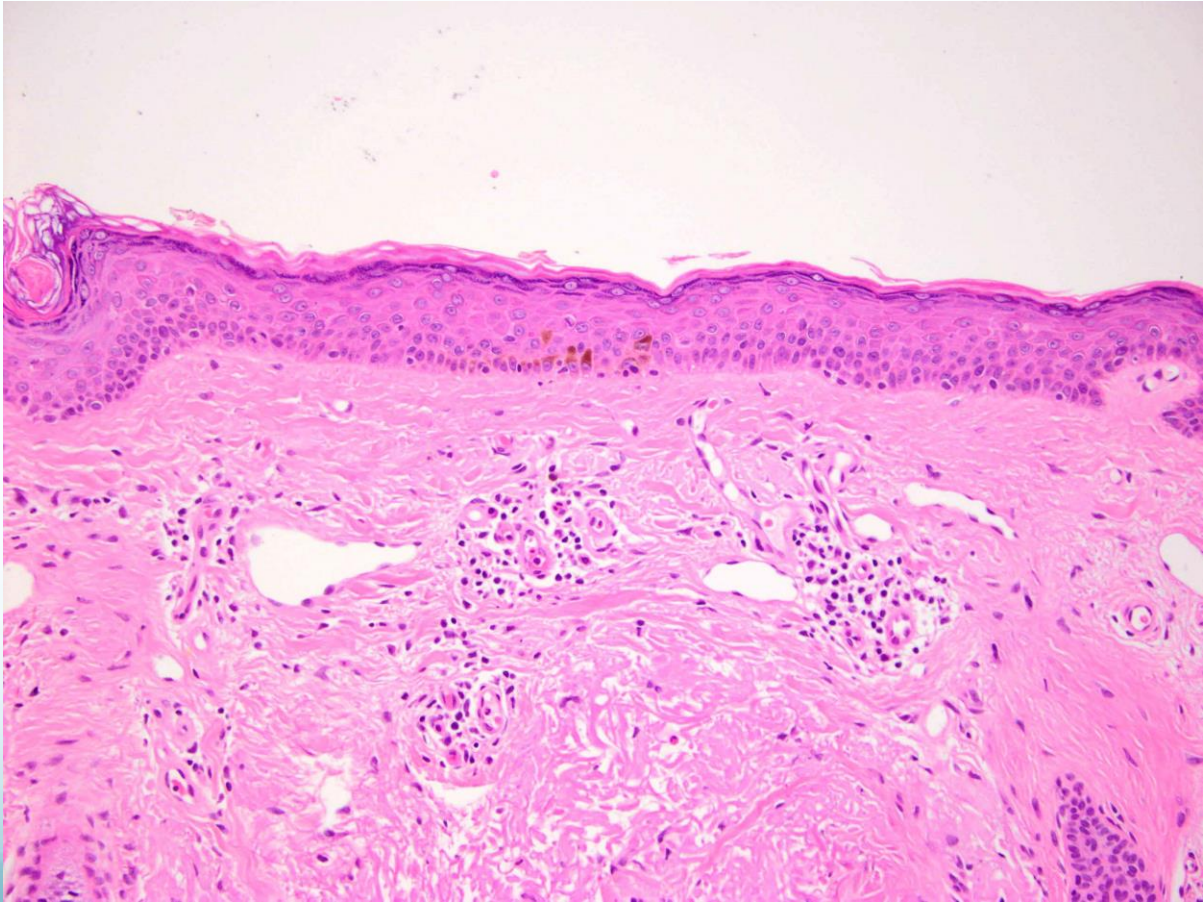


AFX vs malignant fibrous histiocytoma

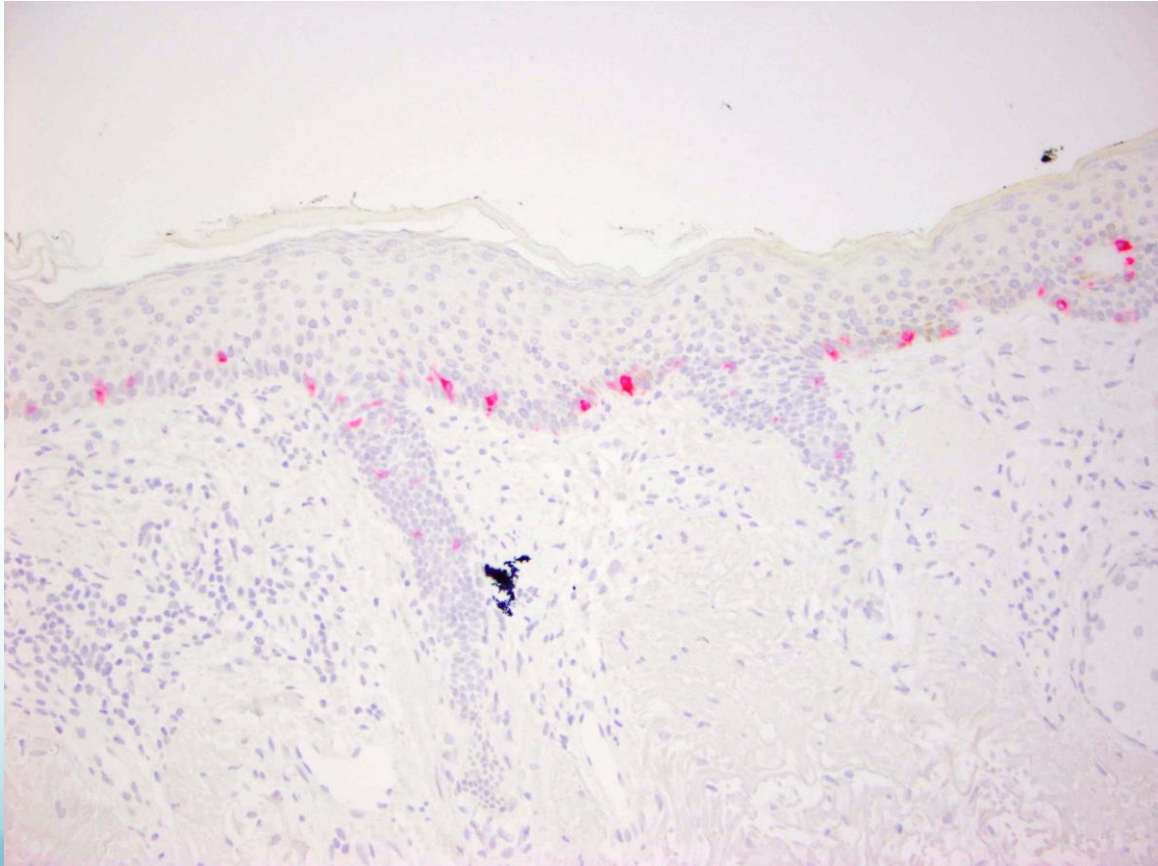
- Histologically and immunohistochemically identical
- Diagnosis determined by location of lesion.

Melanoma Under the Microscope

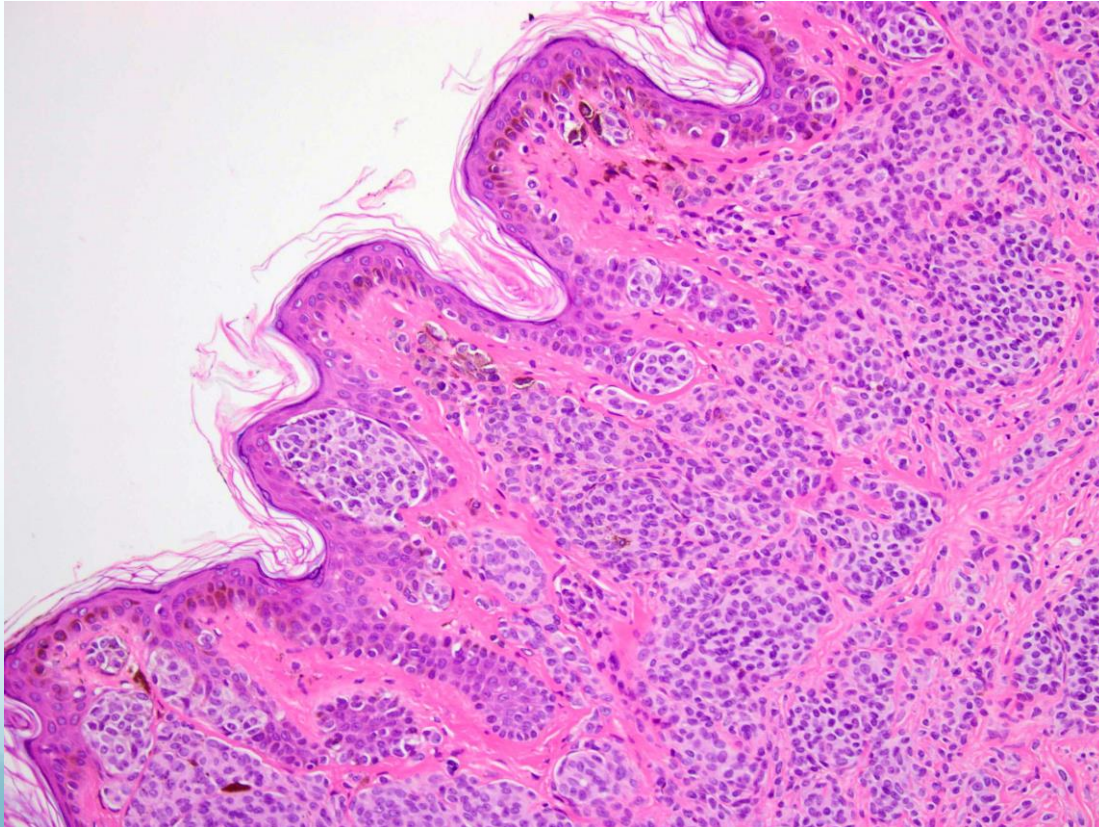
Melanocytes in normal skin



Melanocytes in normal skin



Compound Naevus



Melanoma

- Melanoma in-situ
confined to the epidermis

- Invasive melanoma
invades dermis or deeper tissue

Some Histological Criteria for Melanoma

Large size of the lesion

Asymmetry

- silhouette
- cytological details
- distribution of cells and pigment

Cytological atypia

Pagetoid spread

Lentiginous pattern

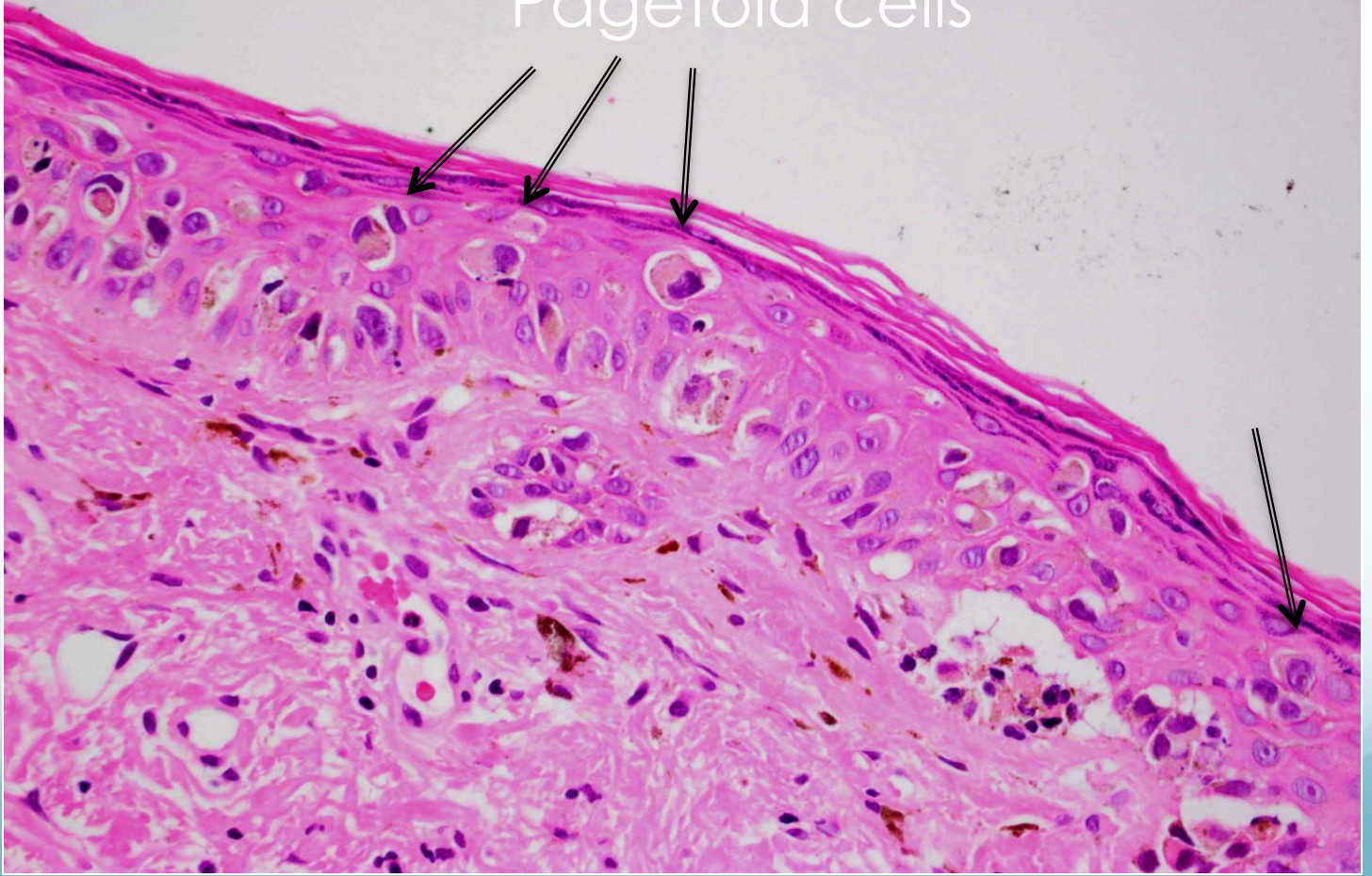
Dermal mitoses

Lack of vertical maturation

Histological Criteria for Melanoma

- No single histological feature is specific or diagnostic of melanoma
- Many criteria are of low sensitivity and specificity
- Interobserver variations
- Which criteria is more significant?

Pagetoid cells



Immunohistochemical stains used in melanocytic lesions

- S-100
- MelanA
- HMB45
- MiTF

Histological Classification of Melanoma

Common variants

Superficial spreading melanoma

Nodular melanoma

Lentigo maligna

Acral lentiginous melanoma

Melanoma not otherwise
classified

Uncommon variants

Desmoplastic melanoma

Melanoma arising in a blue naevus

Melanoma in congenital naevus

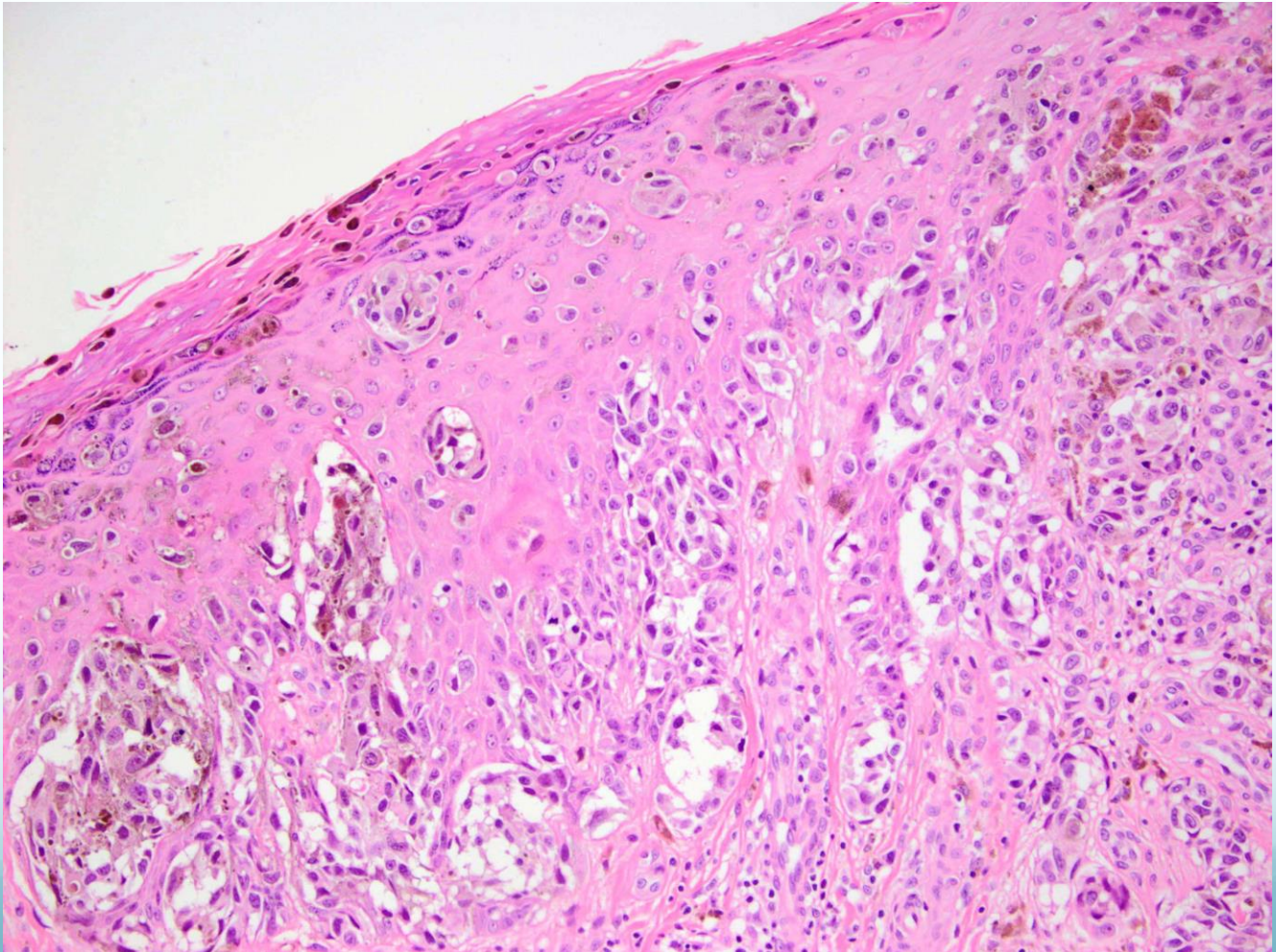
Nevoid (minimal deviation)
melanoma

Primary dermal melanoma

Superficial spreading melanoma

- Most frequent pattern
- Almost any part of the body
- In-situ and invasive melanoma
- Large neoplastic melanocytes that extend among the keratinocytes in a ‘buck shot’ or pagetoid pattern

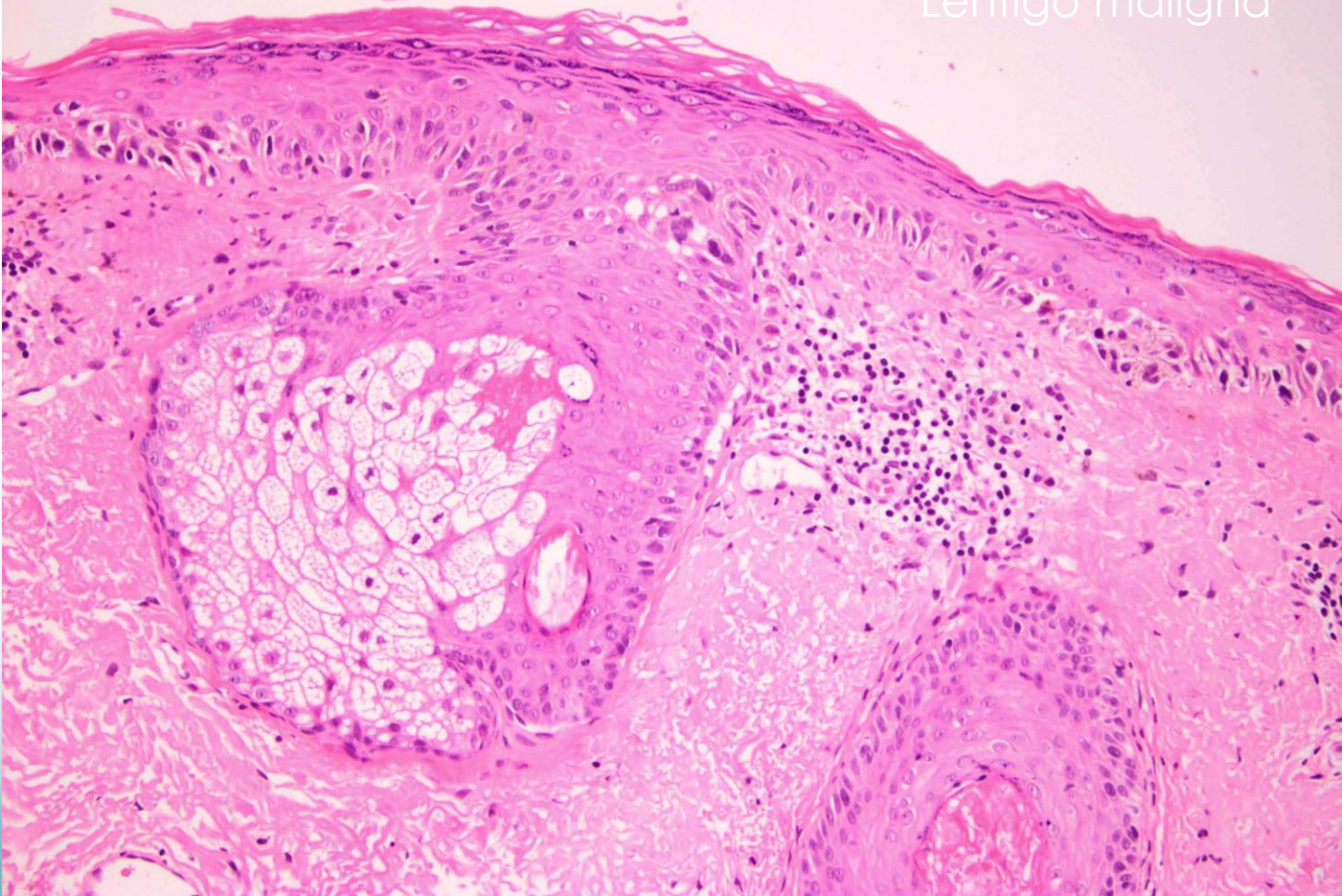
Superficial spreading melanoma



Lentigo maligna

- aka Hutchinson's melanotic freckle
- Form of in-situ melanoma
- Sun damaged skin in elderly
- Mainly face, less often neck and forearm
- Lentigo maligna melanoma

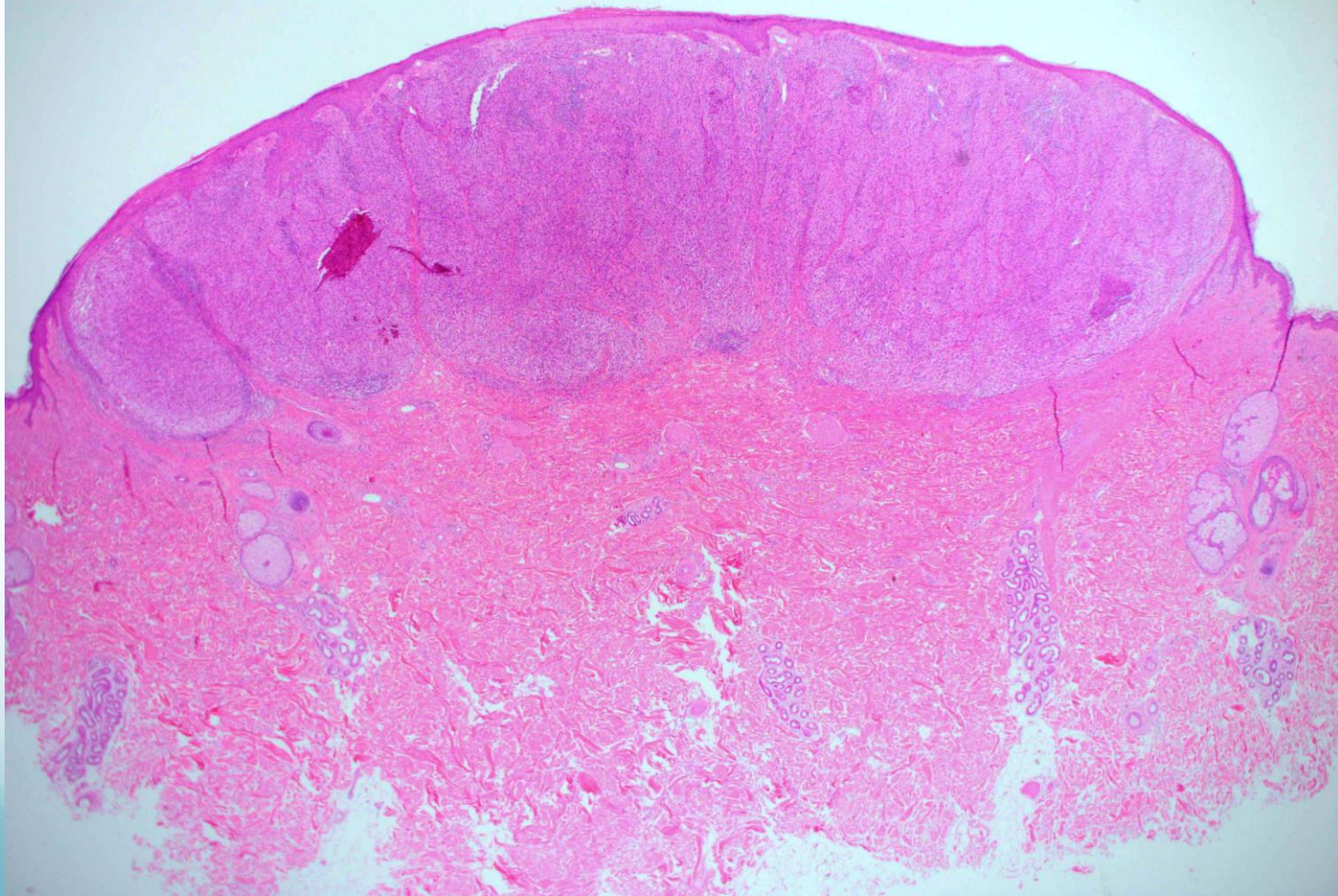
Lentigo maligna

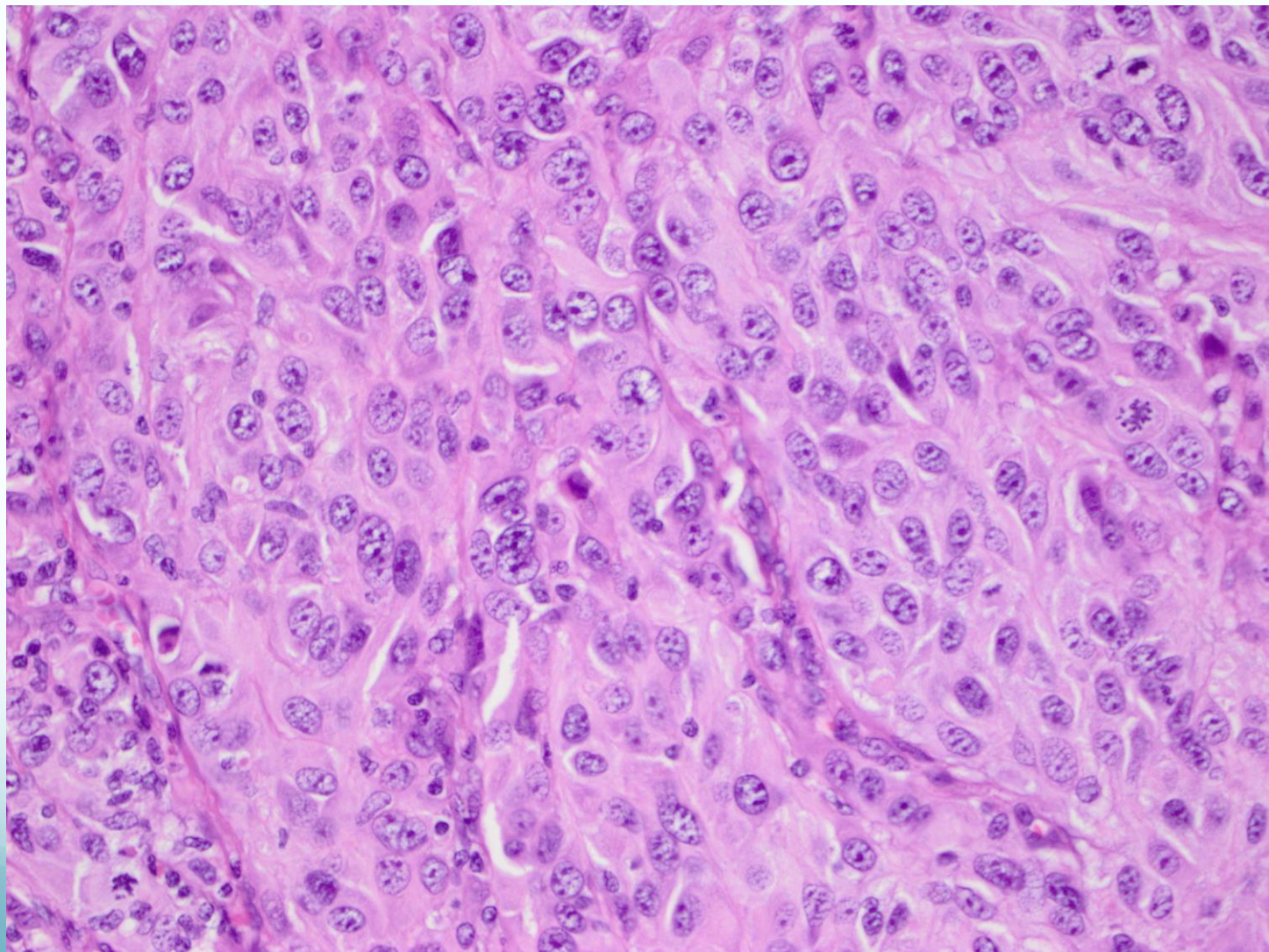


Nodular melanoma

- Any location
- Rapidly growing papule or nodule
- Black or blue, also amelanotic

Nodular melanoma

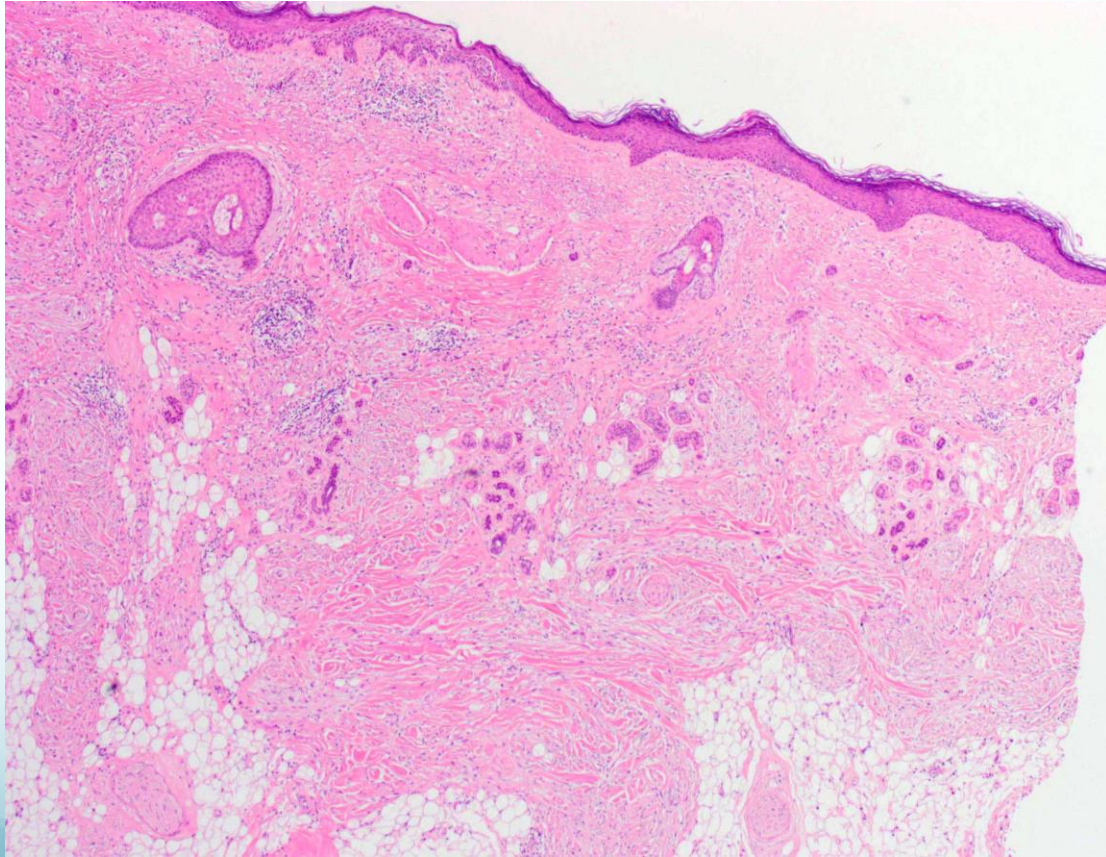


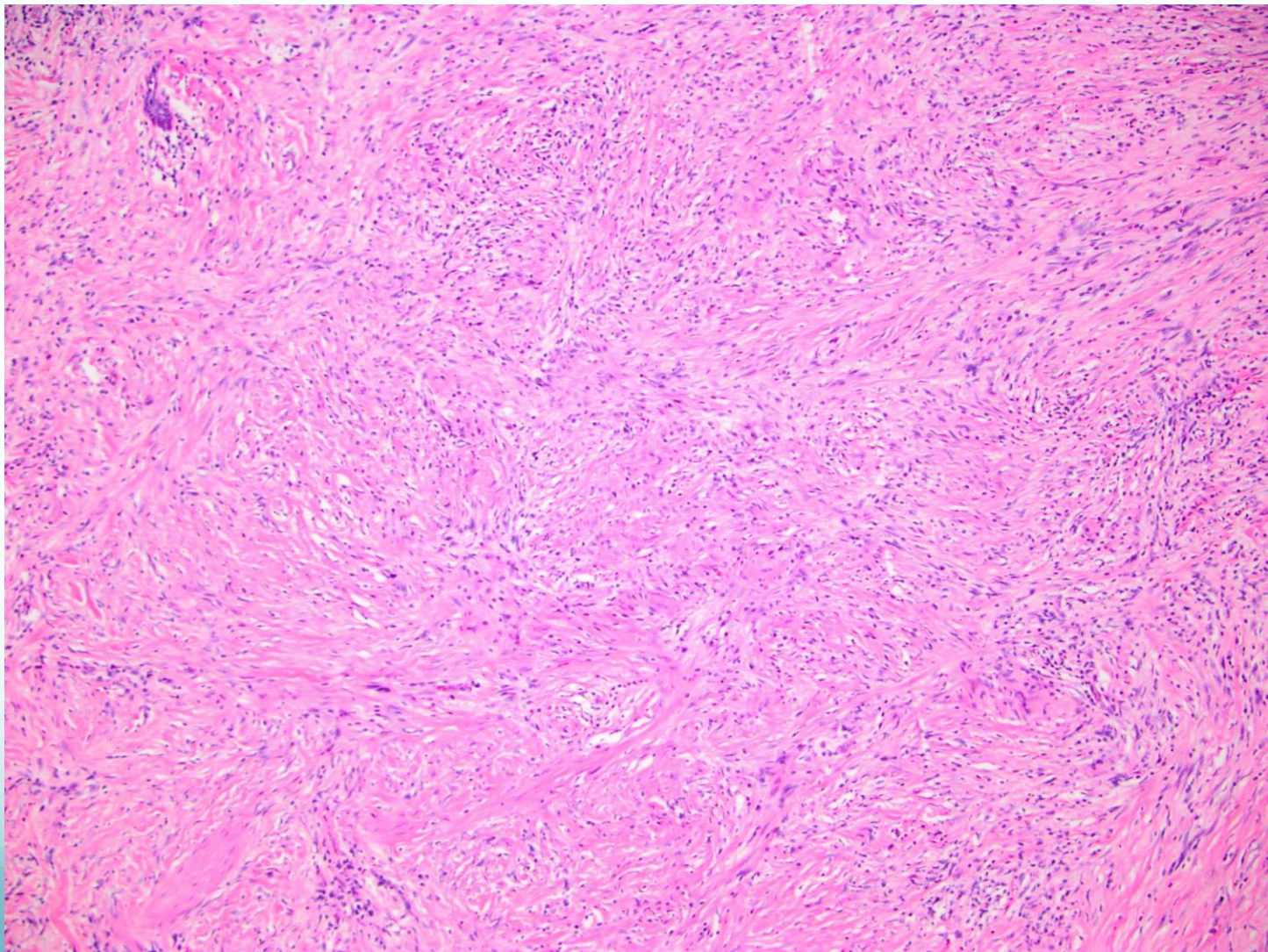


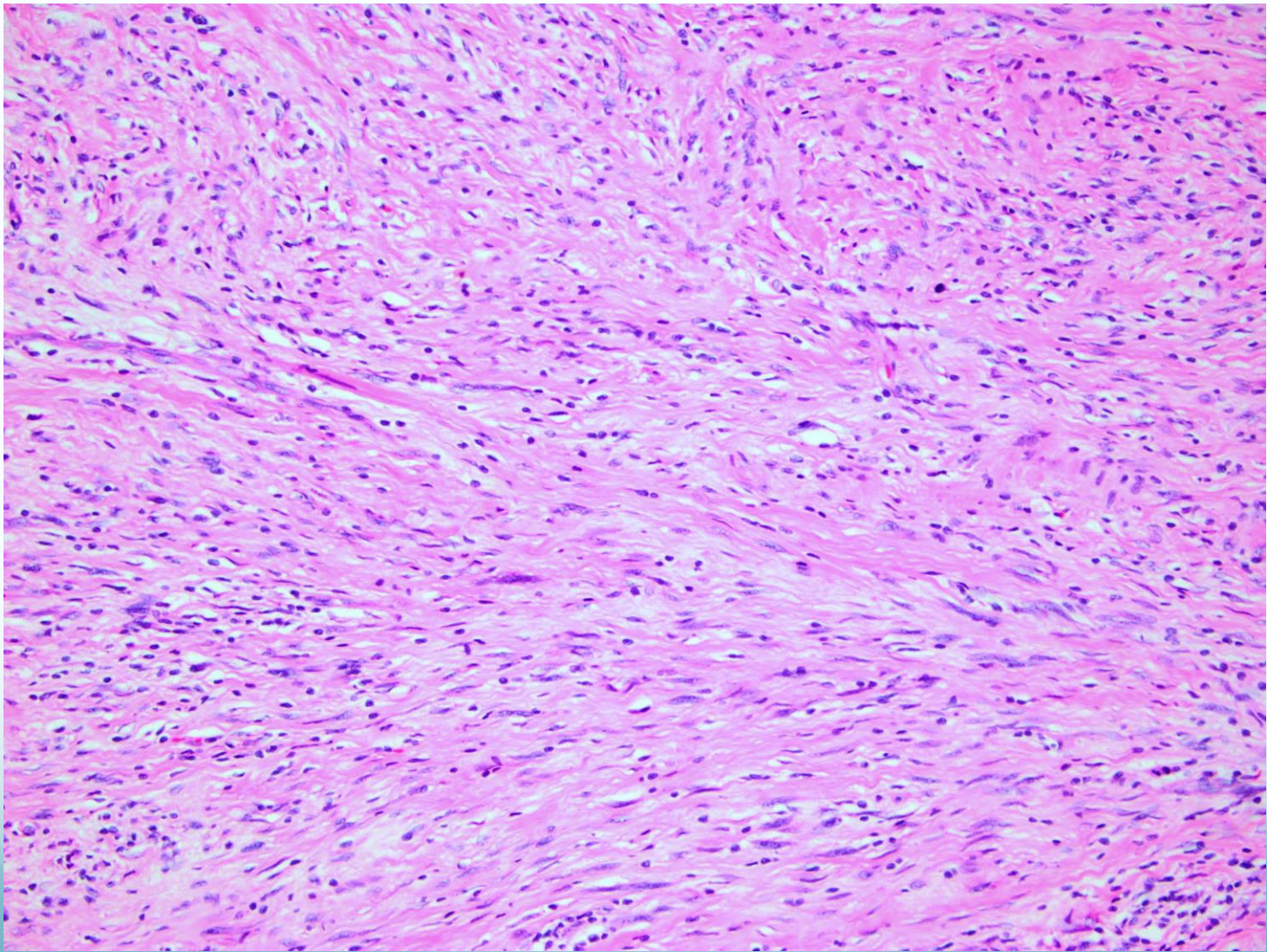
Desmoplastic melanoma

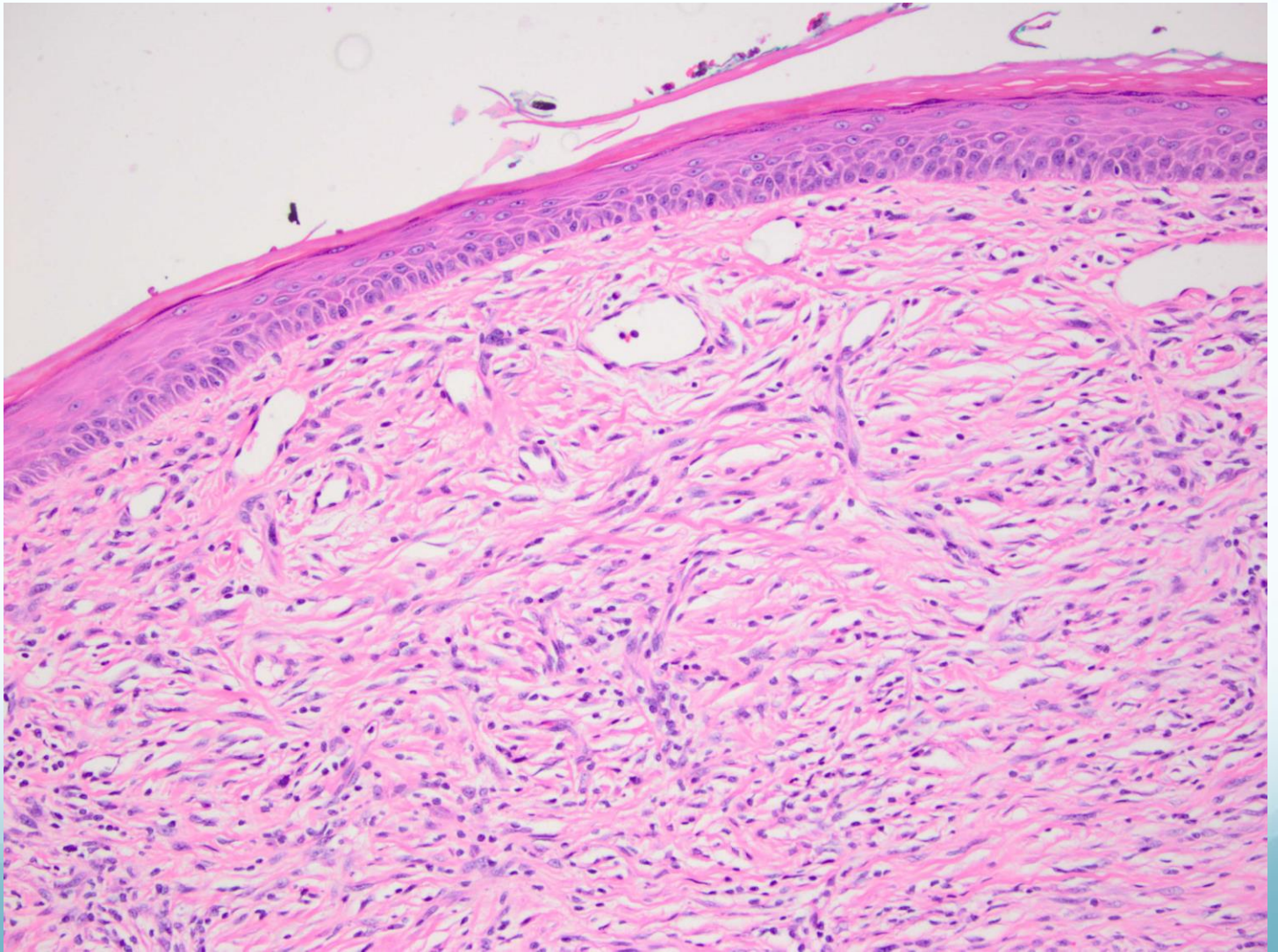
- spindle fibroblasts-like melanocytes and abundant collagen
- Head and neck of elderly
- Clinical misdiagnosis not uncommon – scar, BCC

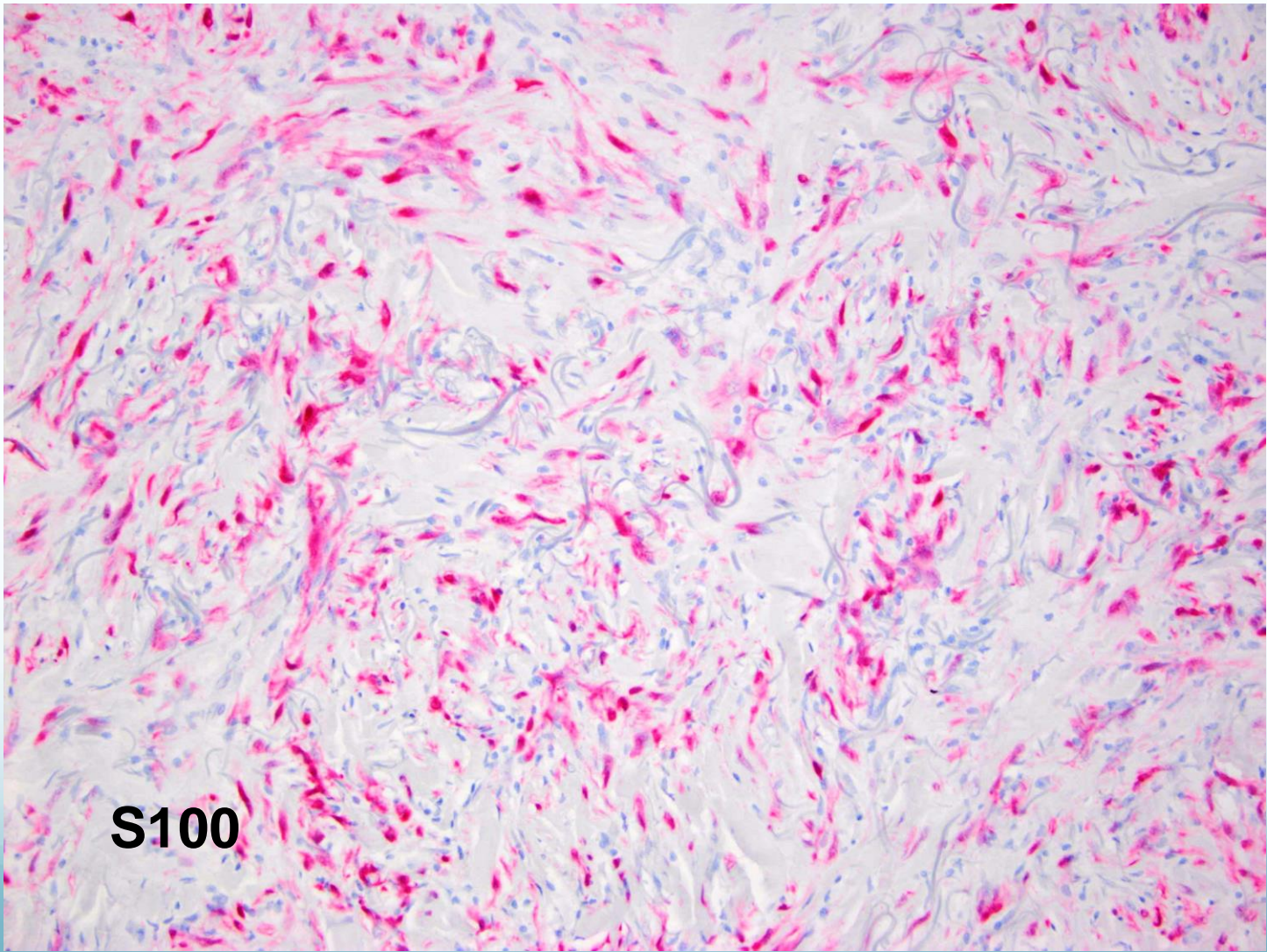
Desmoplastic melanoma











S100