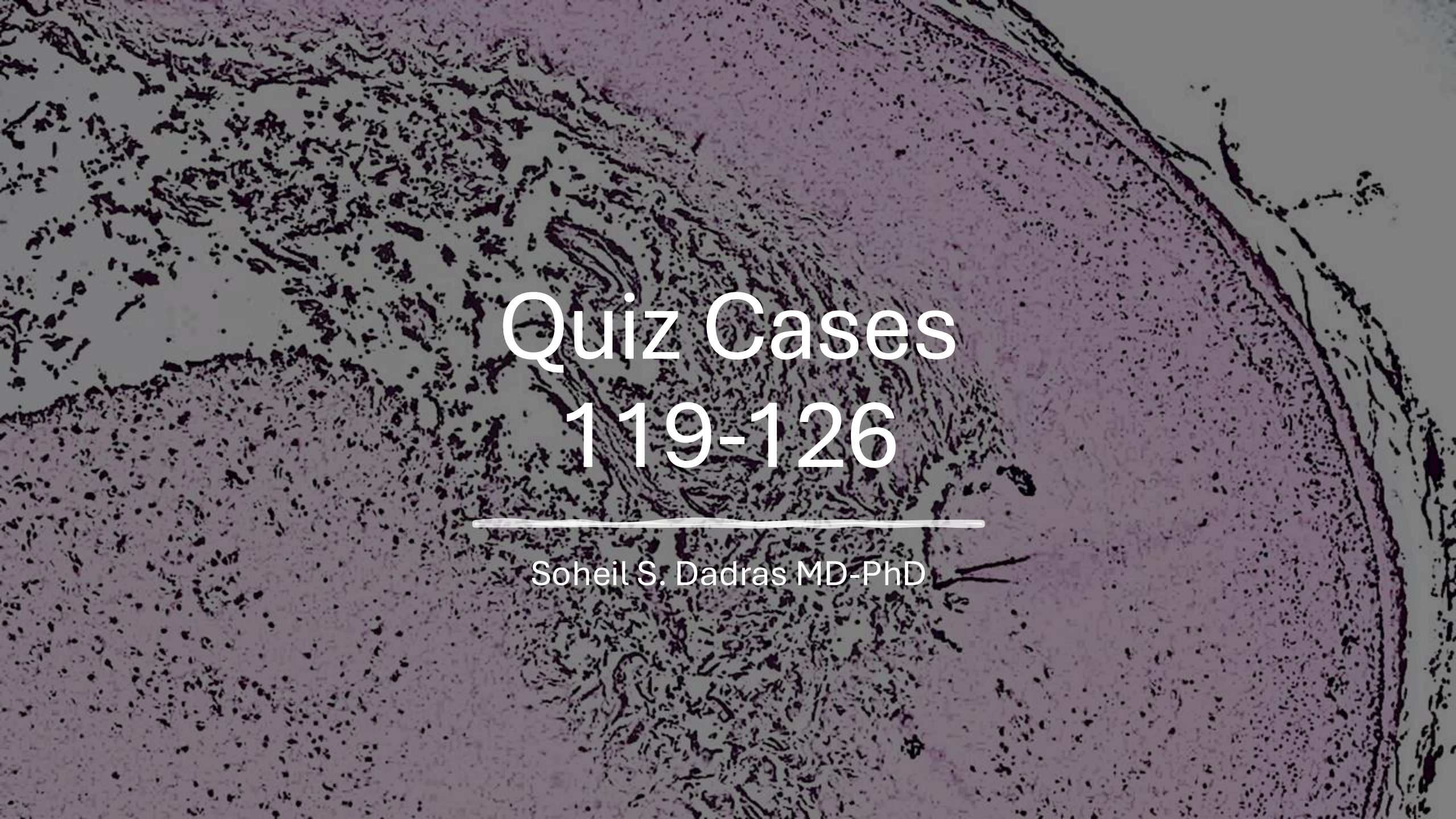


The background of the slide is a histological image, likely a hematoxylin and eosin (H&E) stained section of tissue. It shows a dense cellular structure with various shades of pink and purple, indicating different tissue components and cellular morphology. The text is overlaid on this image.

Quiz Cases 119-126

Soheil S. Dadras MD-PhD

Test your knowledge of diagnostic skin pathology



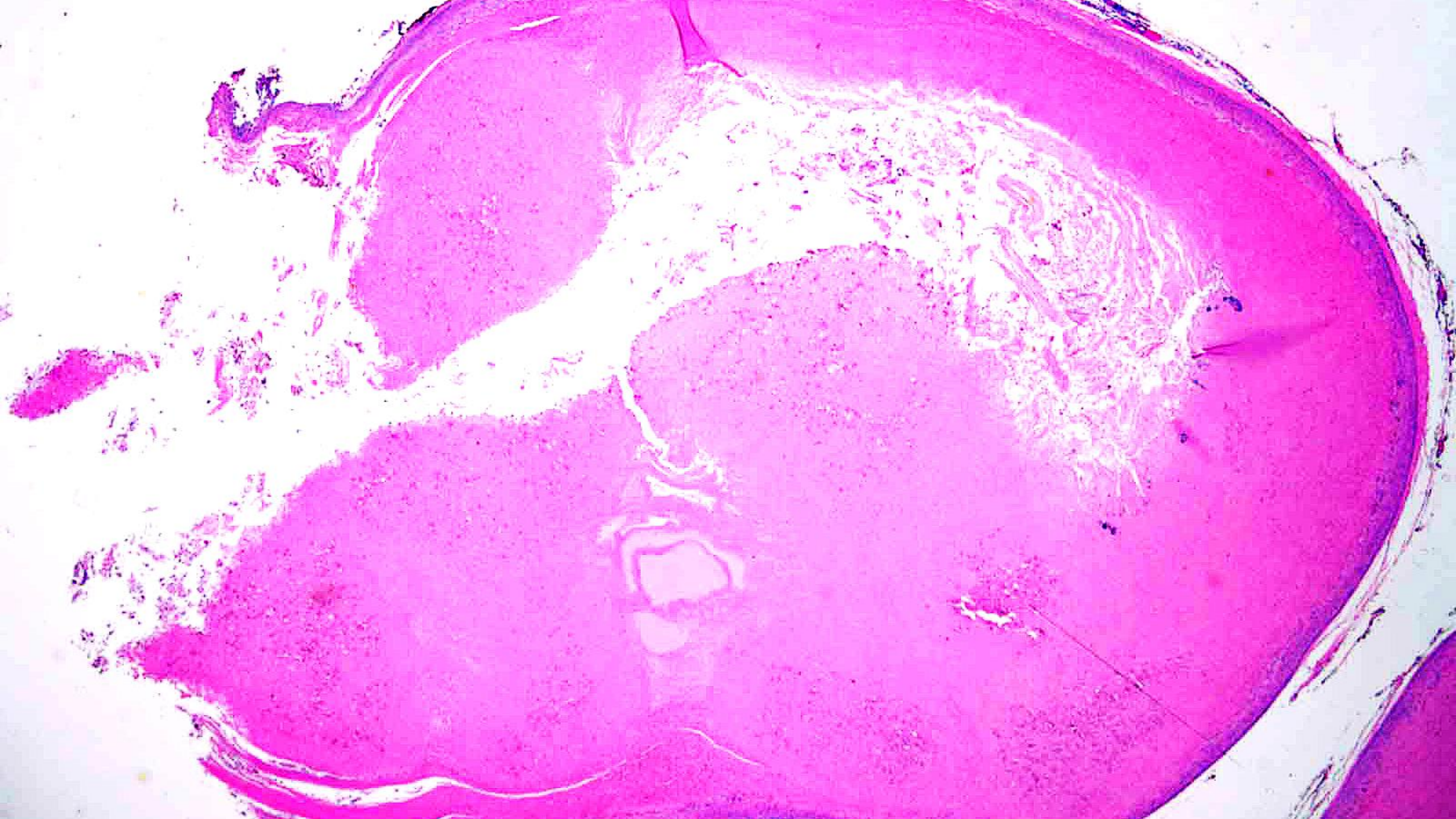
EXAMINE THE UNLABELED
IMAGES

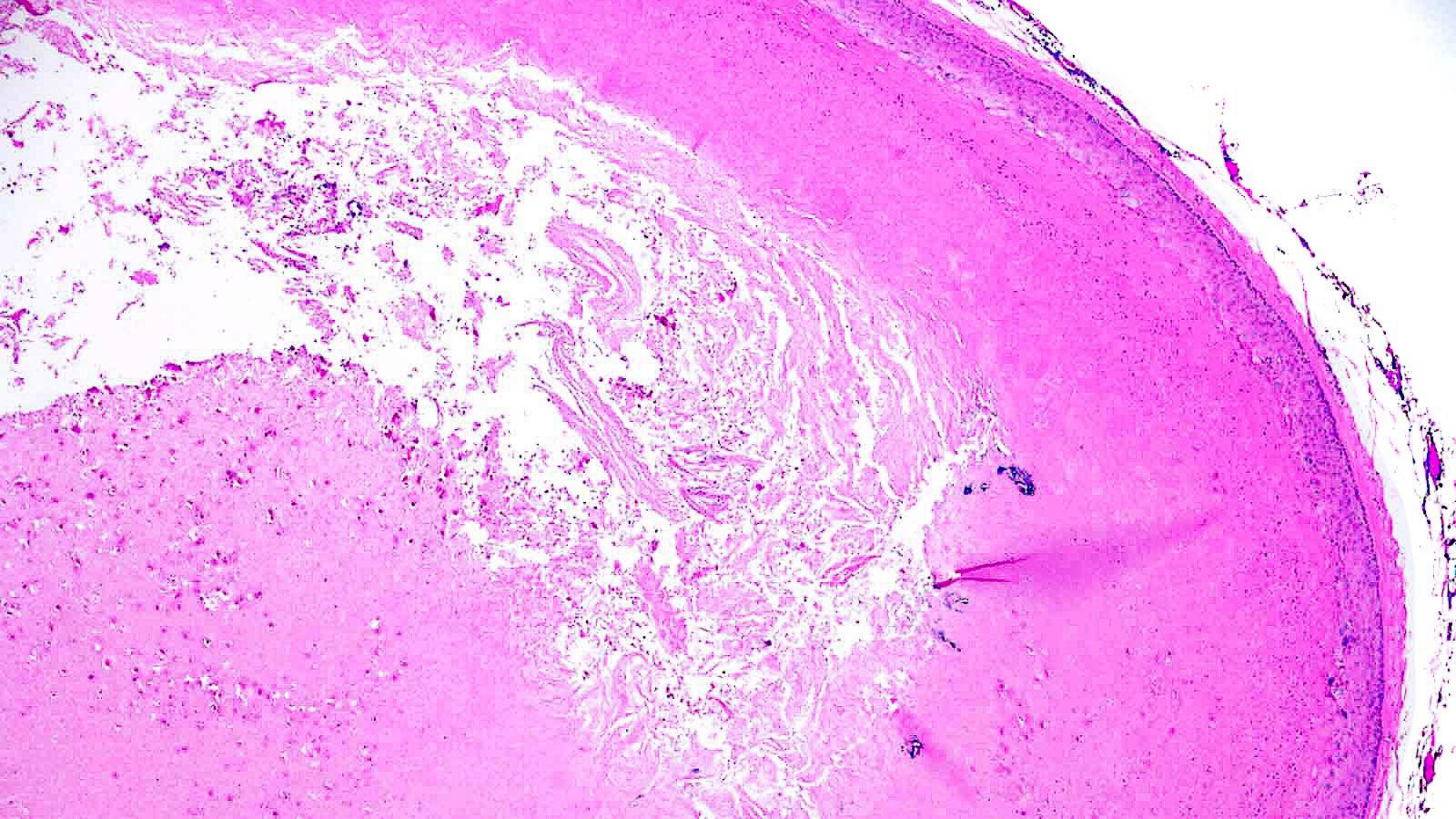


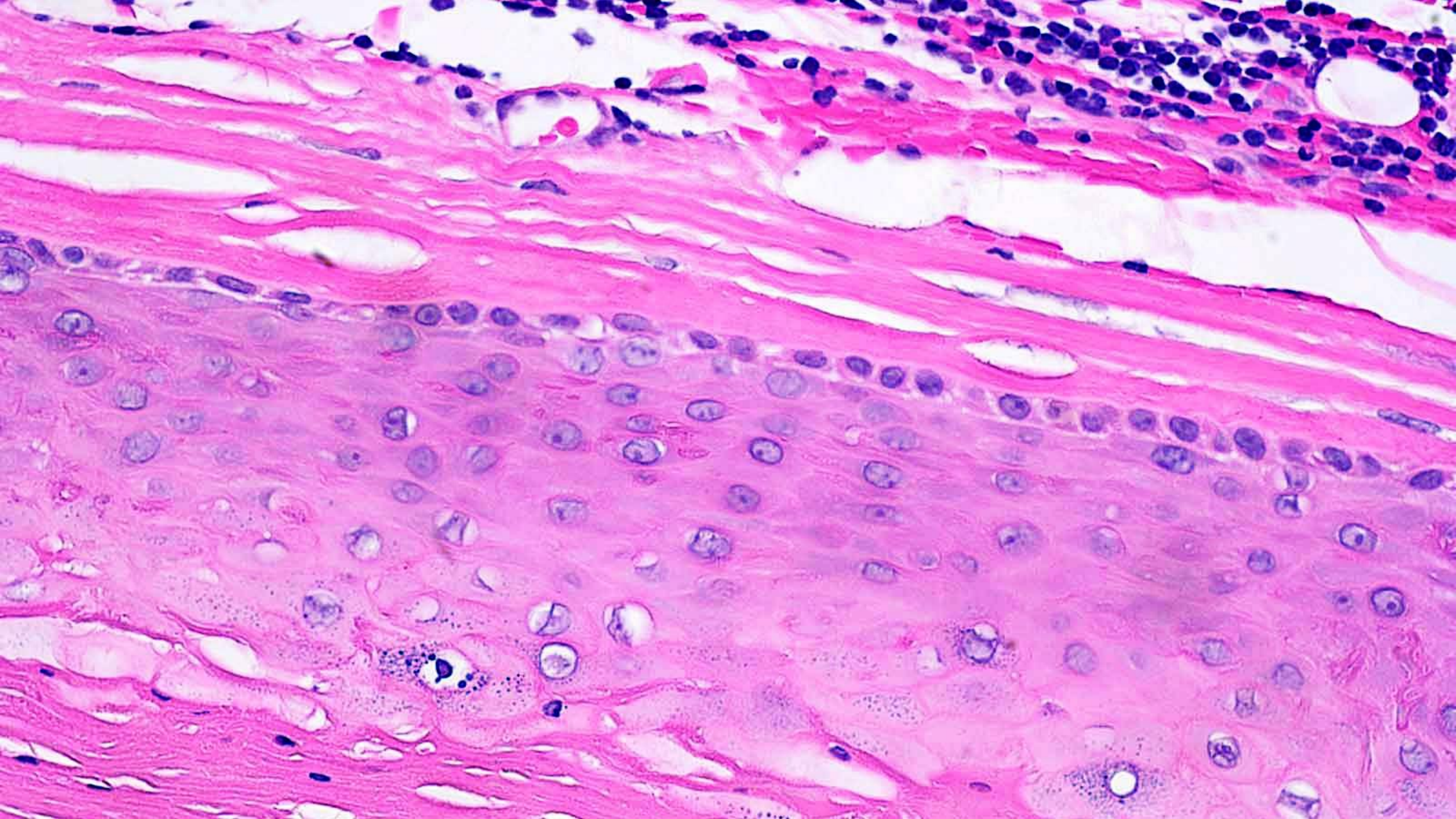
ANSWER THE QUESTIONS



FIND THE ANSWER KEY
AND SUMMARY







Case 119. 43F with scalp lesion. What is your diagnosis?

A. Pilar (trichilemmal) cyst

B. Proliferating pilar tumor/cyst

C. Epidermal (follicular infundibular) cyst

D. Hybrid cyst (both epidermal and pilar differentiation)

E. Dermoid cyst

Case 119. 43F with scalp lesion. What is your diagnosis?

A. Pilar (trichilemmal) cyst

B. Proliferating pilar tumor/cyst

C. Epidermal (follicular infundibular) cyst

D. Hybrid cyst (both epidermal and pilar differentiation)

E. Dermoid cyst

Summary: Pilar (trichilemmal) cyst

• Teaching Points:

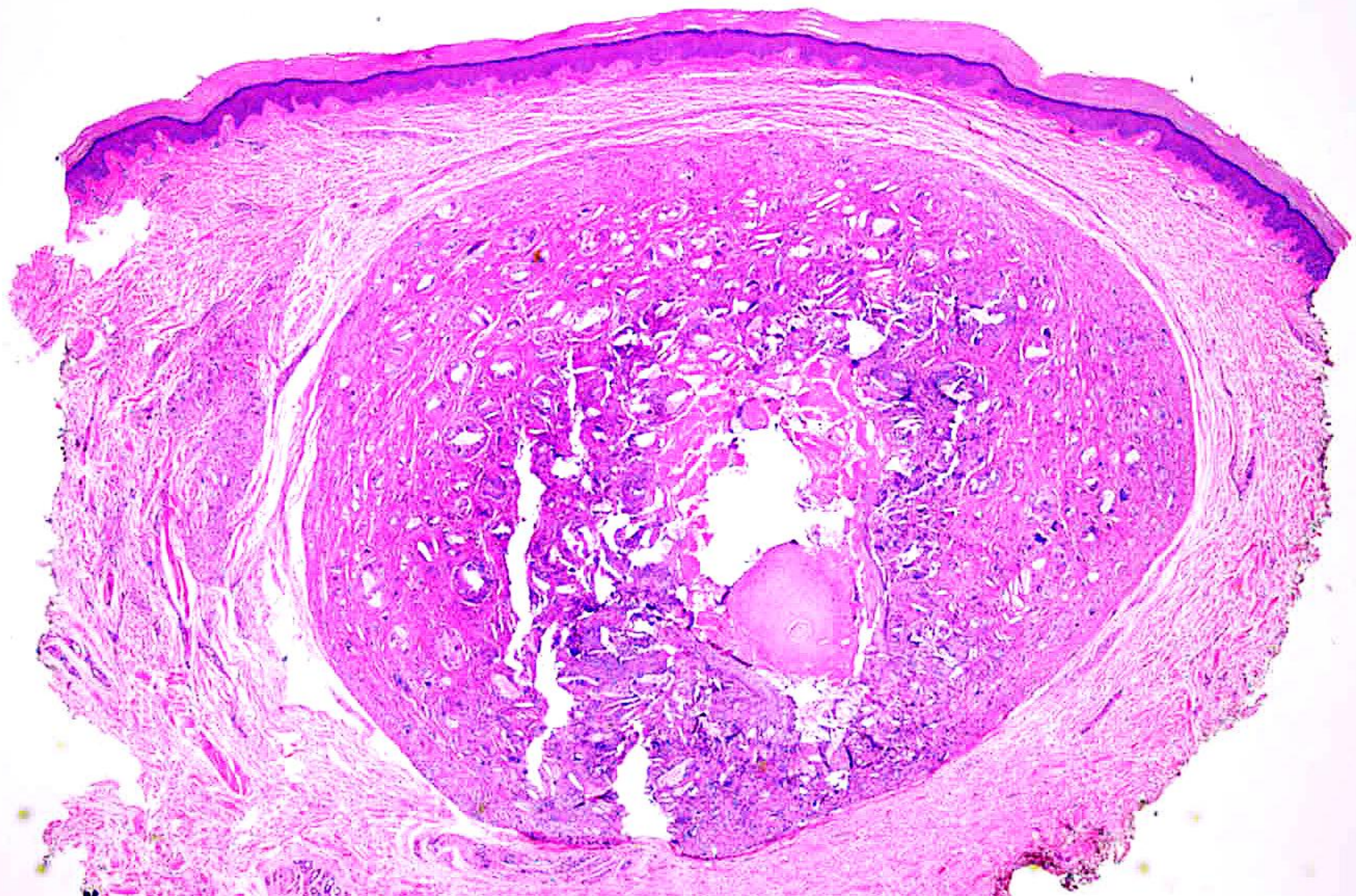
- Straight-forward histopathology
- Look for complex epithelial growth (if present submit the entire specimen for histologic examination)

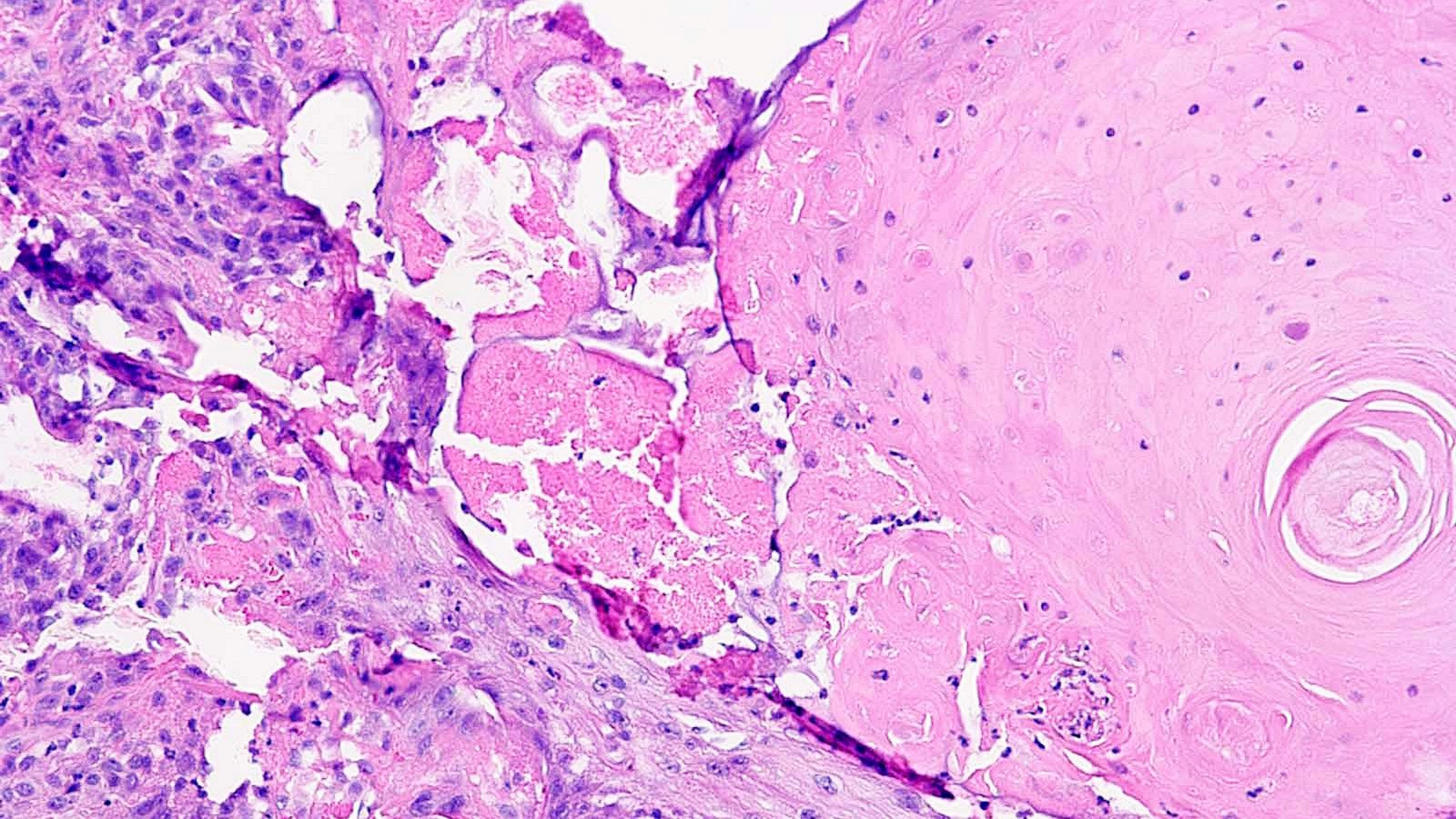
• Minimal Diagnostic Criteria:

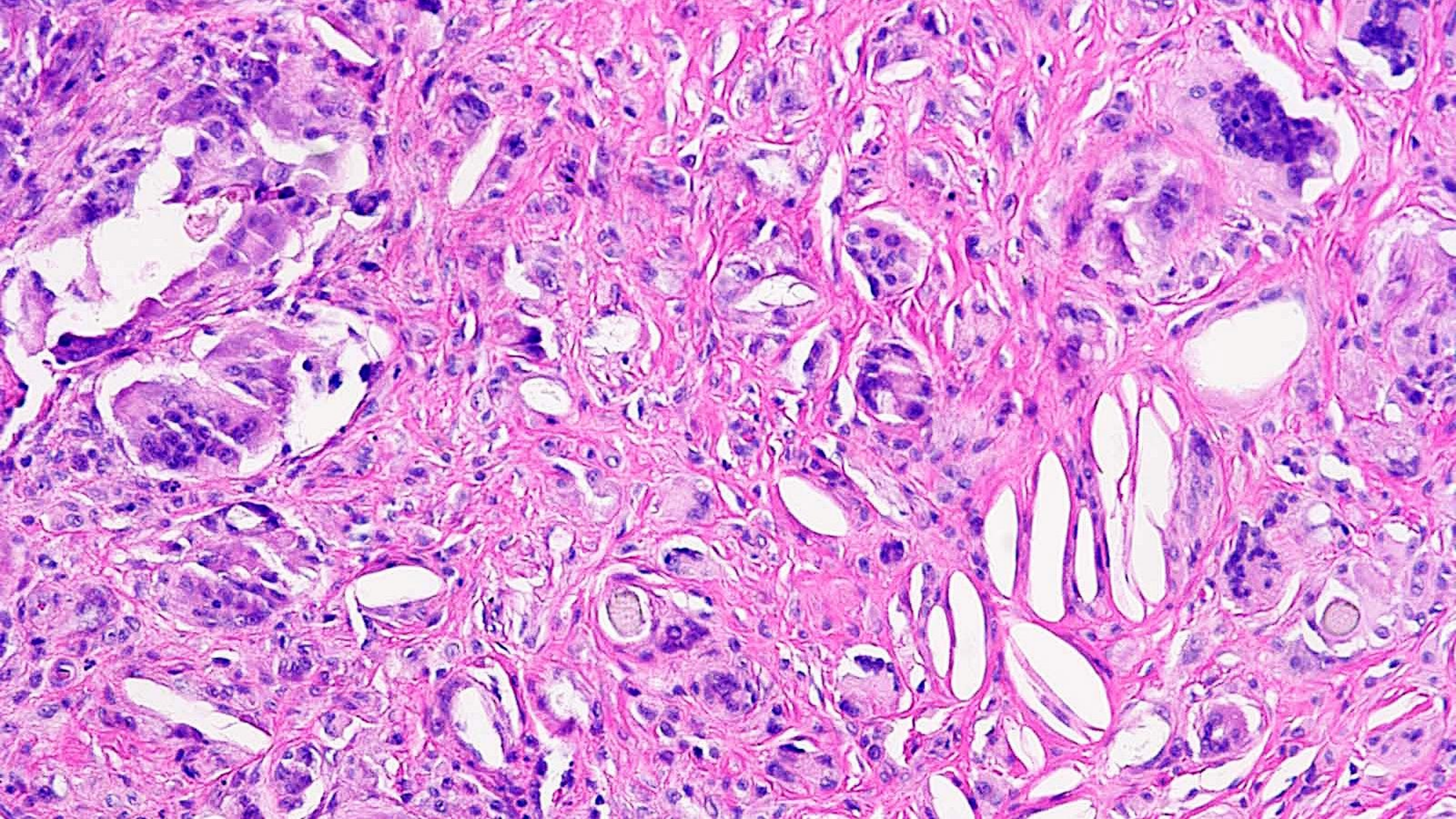
- Compact eosinophilic cyst content
- Stratified squamous lining (not easily seen intercellular bridges)
- Absent granular cell layer
- Palisading of basal layer

• Differential Diagnosis:

- Hybrid cyst (both epidermal and pilar differentiation)
- Proliferating pilar tumor/cyst
- Epidermal cyst







Case 120. 22M, cyst on back. What is your diagnosis?

A. Pilar (trichilemmal) cyst, ruptured

B. Proliferating pilar tumor/cyst, ruptured

C. Epidermal cyst/folliculitis, ruptured

D. Hybrid cyst, ruptured

E. Dermoid cyst, ruptured

Case 120. 22M, cyst on back. What is your diagnosis?

A. Pilar (trichilemmal) cyst, ruptured

B. Proliferating pilar tumor/cyst, ruptured

C. Epidermal cyst/folliculitis, ruptured

D. Hybrid cyst, ruptured

E. Dermoid cyst, ruptured

Summary: Epidermal cyst/folliculitis, ruptured

- **Teaching Points:**

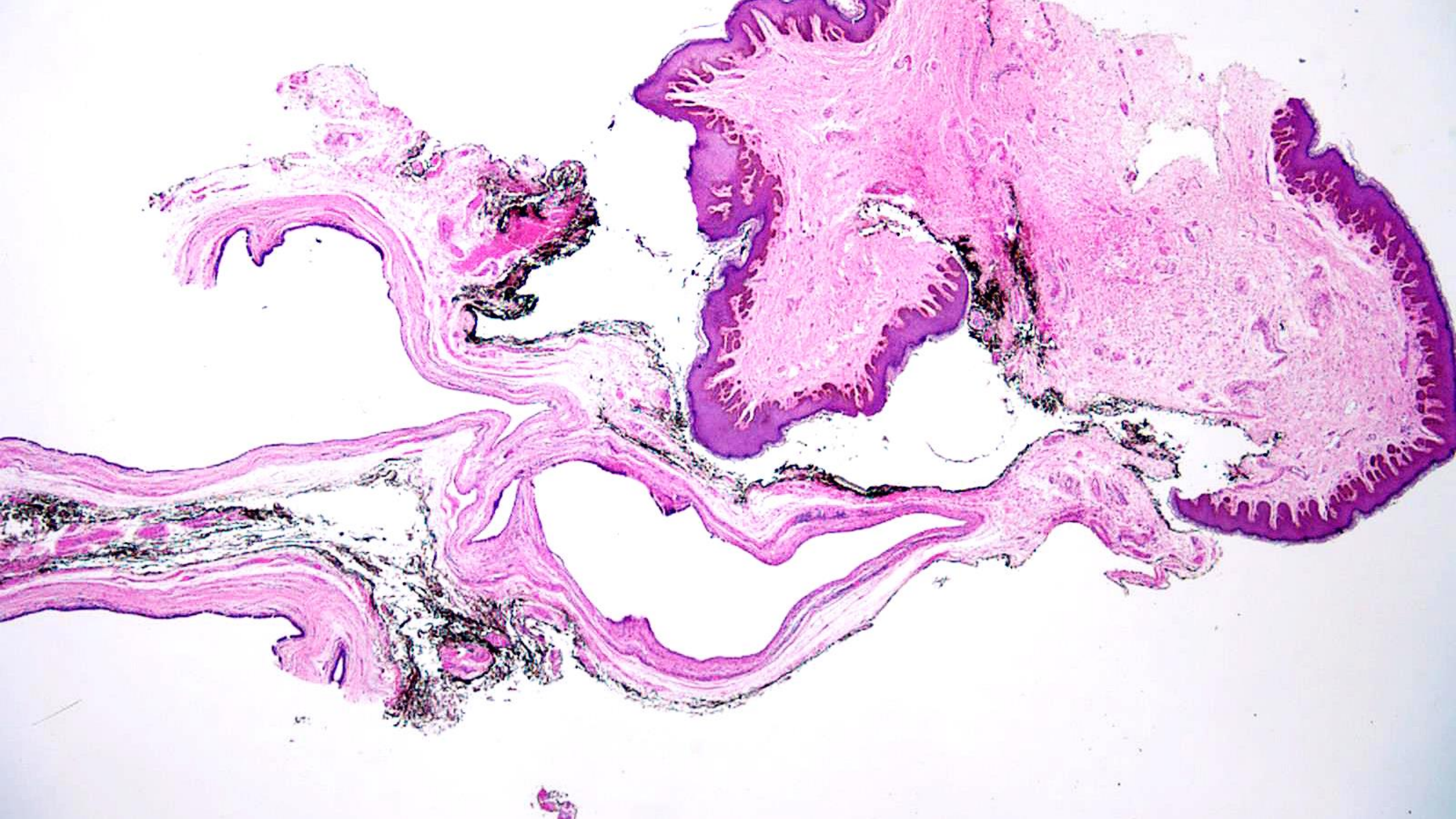
- Some ruptured epidermal cysts may not show epithelial lining (either absorbed, not found in the section or not submitted for histology)
- Numerous keratin granulomas engulfing fragments of loose keratin or broken hair shaft
- Need to rule out suppurative folliculitis (perform PAS and Gram)

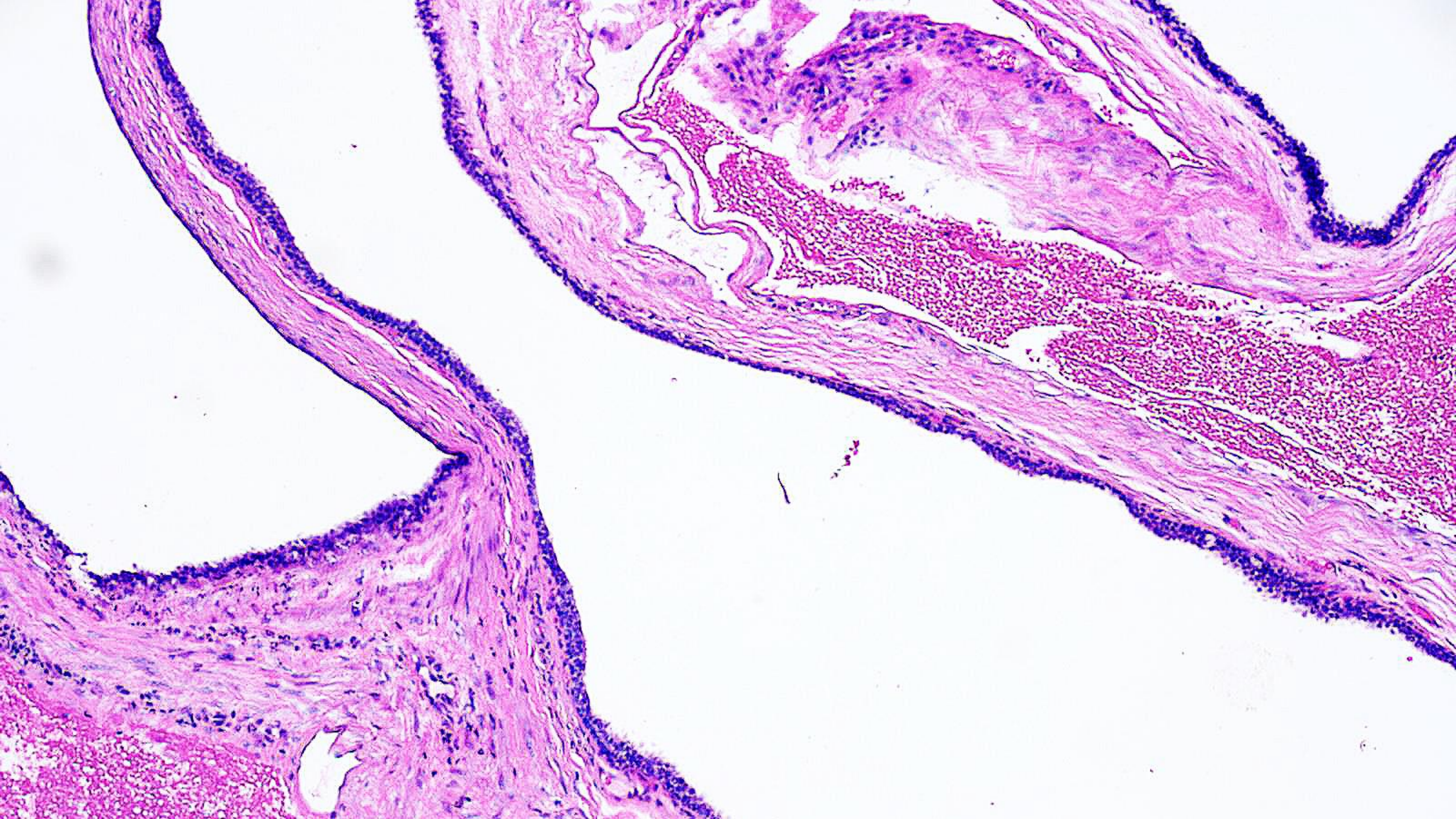
- **Minimal Diagnostic Criteria:**

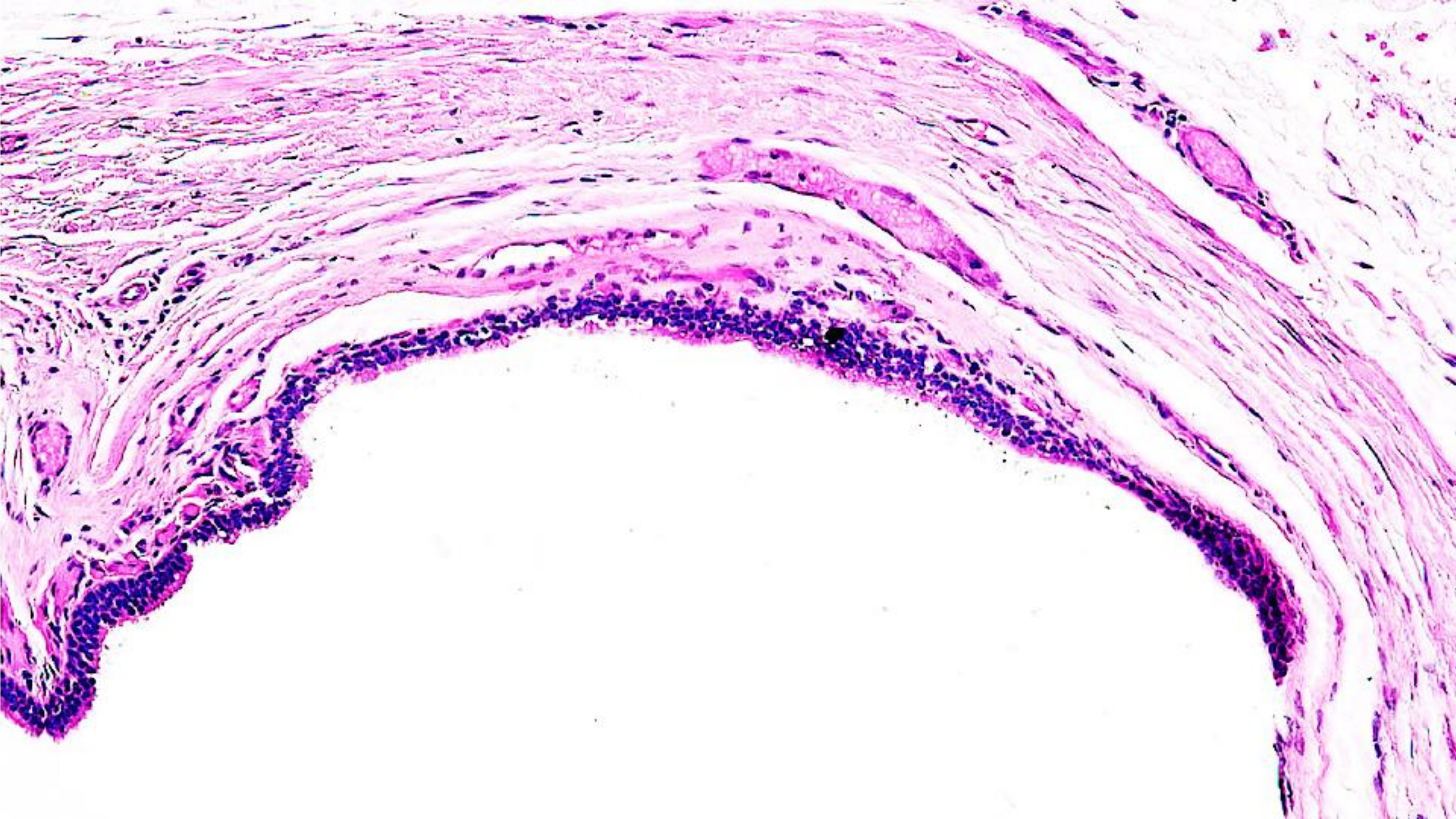
- Loose, flakey cyst content
- Stratified squamous lining (easily seen intercellular bridges)
- Granular cell layer
- Ruptured epidermal cyst may show granulomatous reaction

- **Differential Diagnosis:**

- Ruptured folliculitis (usually numerous neutrophils)







Case 121. 48M with penile lump. What is your diagnosis?

A. Epidermoid cyst

B. Urothelial cyst

C. Epidermal (follicular infundibular) cyst

D. Median raphe cyst

E. Dermoid cyst

Case 121. 48M with penile lump. What is your diagnosis?

A. Epidermoid cyst

B. Urothelial cyst

C. Epidermal (follicular infundibular) cyst

D. Median raphe cyst

E. Dermoid cyst

Histologic Features of Median Raphe Cyst:

•Lining Epithelium:

- **Pseudostratified columnar epithelium** (most common, resembles urethral epithelium).
- May also show **stratified columnar, cuboidal, or transitional epithelium**.
- Occasionally **mucin-secreting cells** (resembling goblet cells).

•Cyst Contents:

- Clear or mucoid fluid.
- No keratin debris (unlike epidermoid cysts).

•Stroma:

- Fibrous connective tissue wall.
- No skin appendages (unlike dermoid cysts).

•Special Stains:

- **Mucicarmine or PAS (+)** highlights mucinous cells.
- **Cytokeratin 7 (+), CK20 (variable)**.

Summary: Median raphe cyst

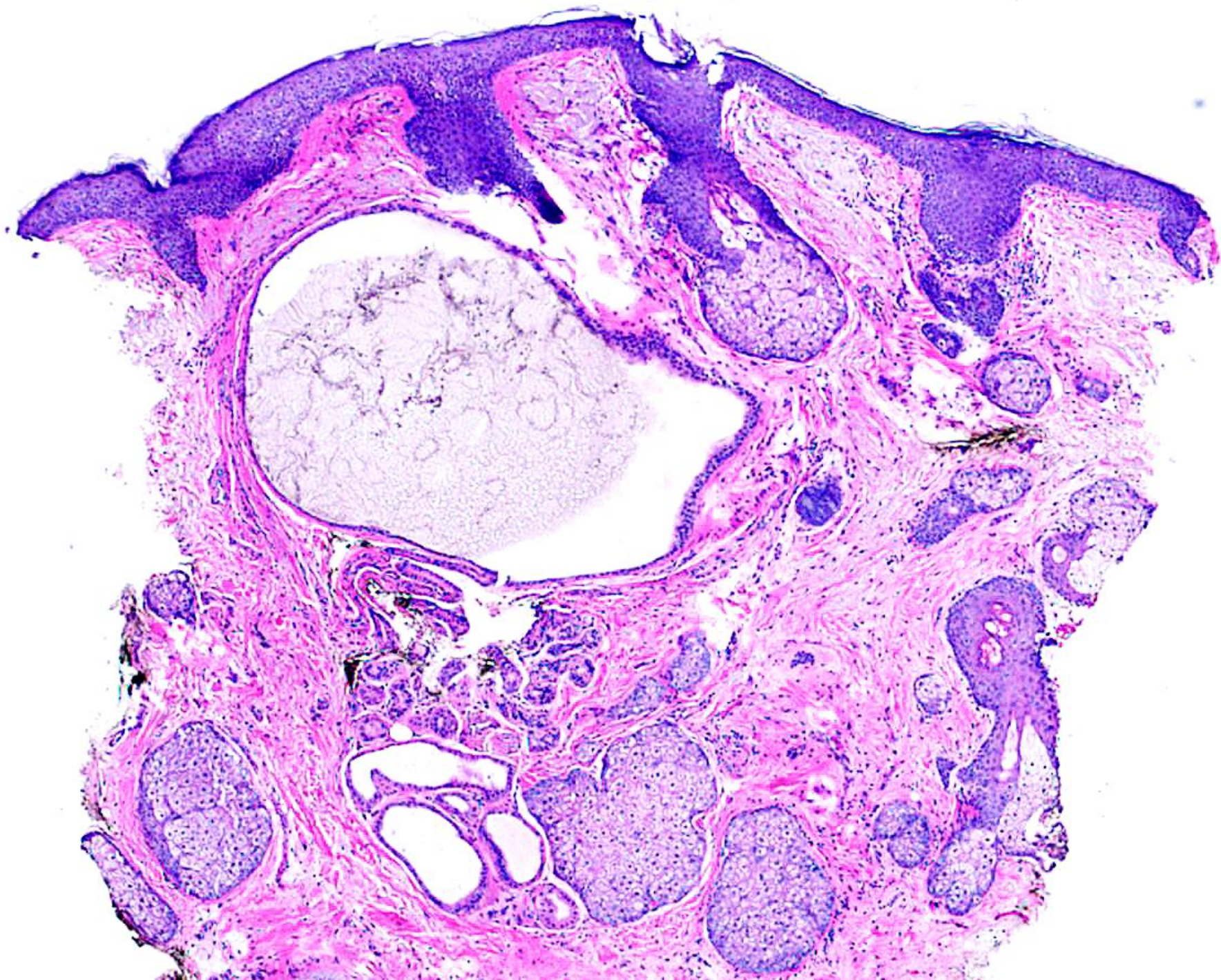
Key Diagnostic Clues:

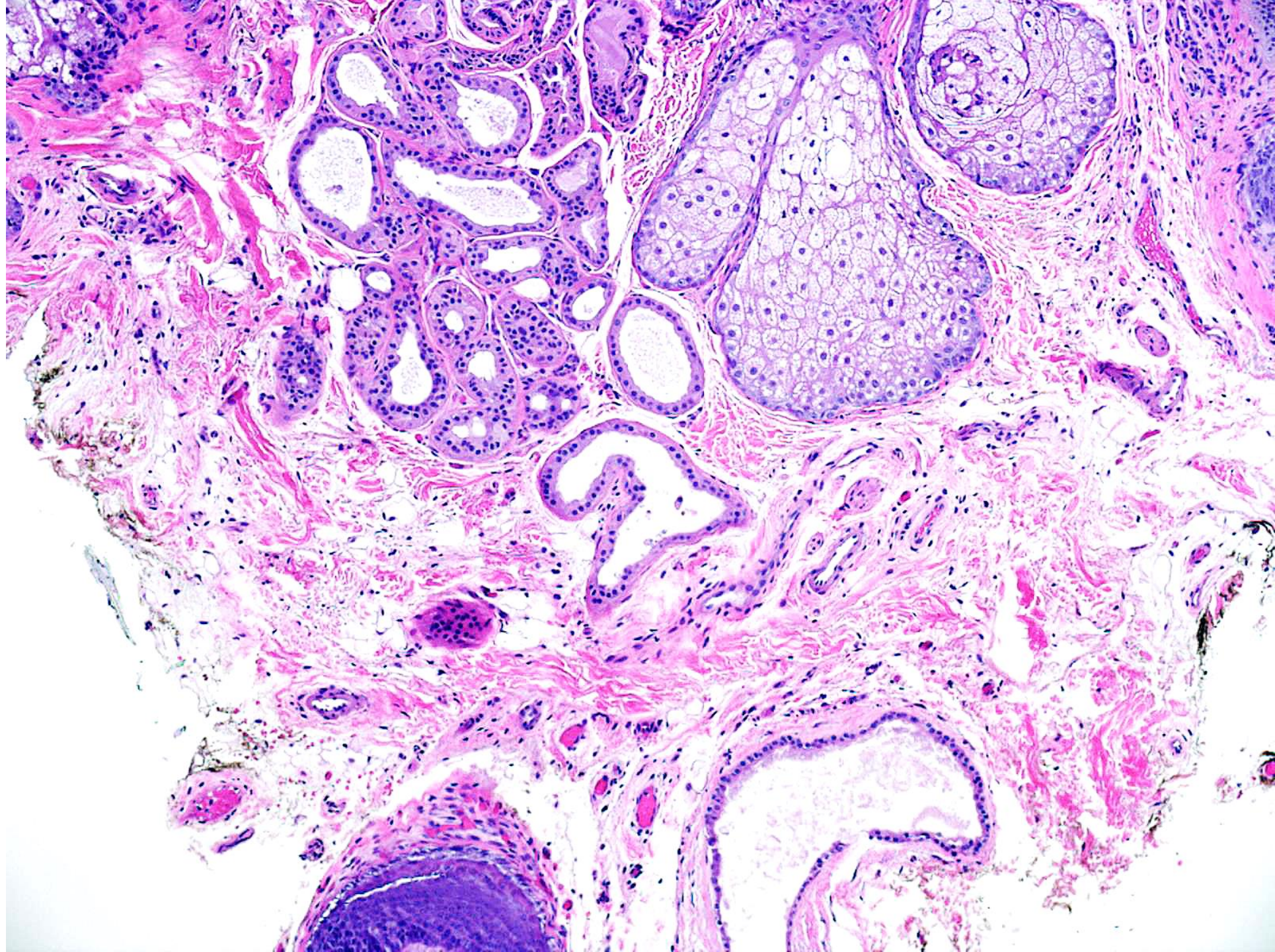
- **Location:** Midline raphe (penile, scrotal, perineal).
- **Lack of keratinization or skin adnexa.**
- **Presence of mucinous or urothelial-like epithelium.**

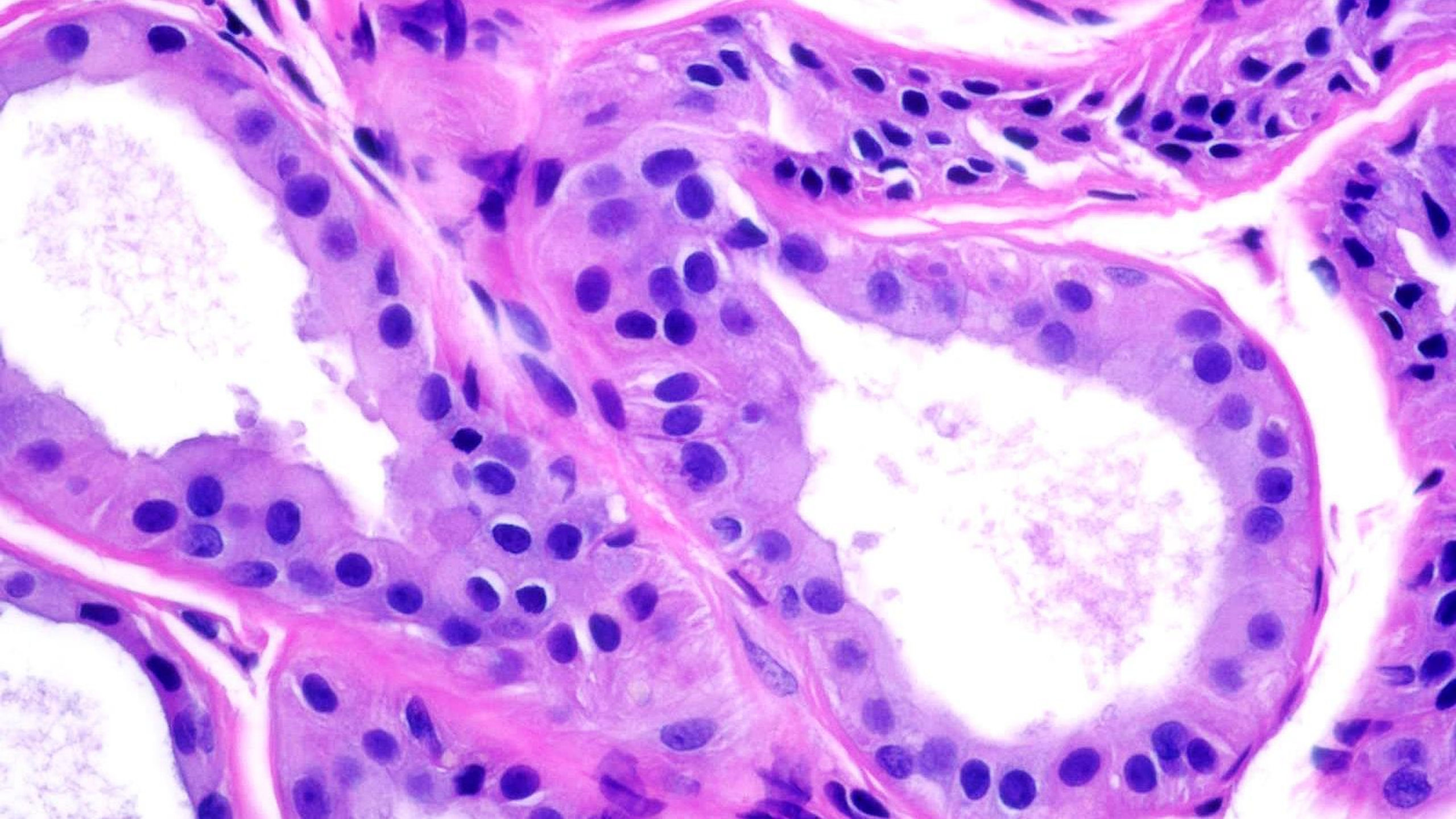
Differential Diagnosis:

Apocrine cystadenoma

Urothelial Cyst (Lined by transitional epithelium (urothelium), no mucinous cells)







Case 122. 66M with 1 mm dark, left upper lip, blue-black papule, dermal nevus, rule out atypia . What is your diagnosis?

A. Epidermoid cyst

B. Urothelial cyst

C. Apocrine cystadenoma

D. Median raphe cyst

E. Dermoid cyst

Case 122. 66M with 1 mm dark, left upper lip, blue-black papule, dermal nevus, rule out atypia . What is your diagnosis?

A. Epidermoid cyst

B. Urothelial cyst

C. Apocrine cystadenoma

D. Median raphe cyst

E. Dermoid cyst

Summary: Apocrine cystadenoma

- **Teaching Points:**

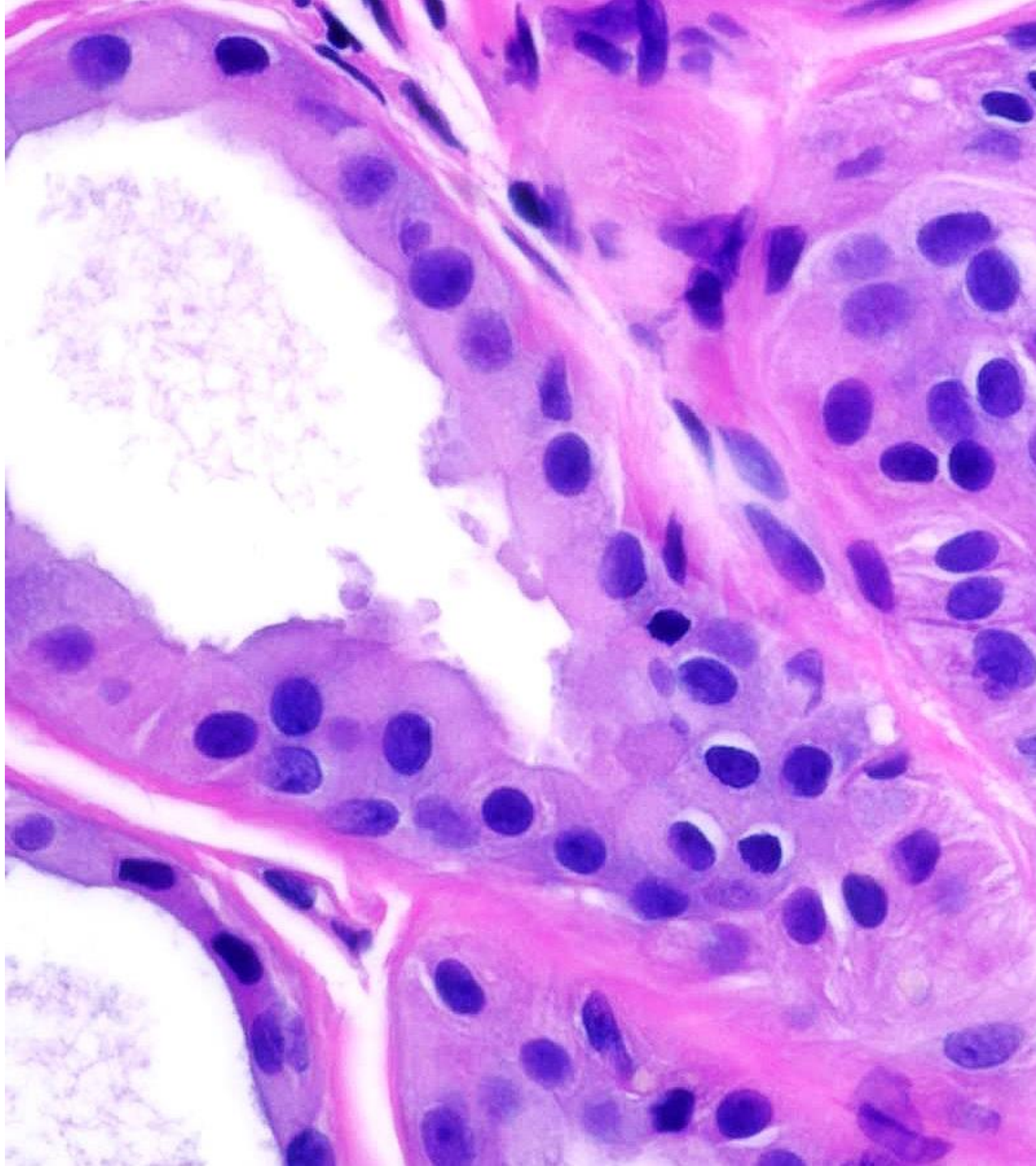
- Decapitation secretion may appear bluish-black

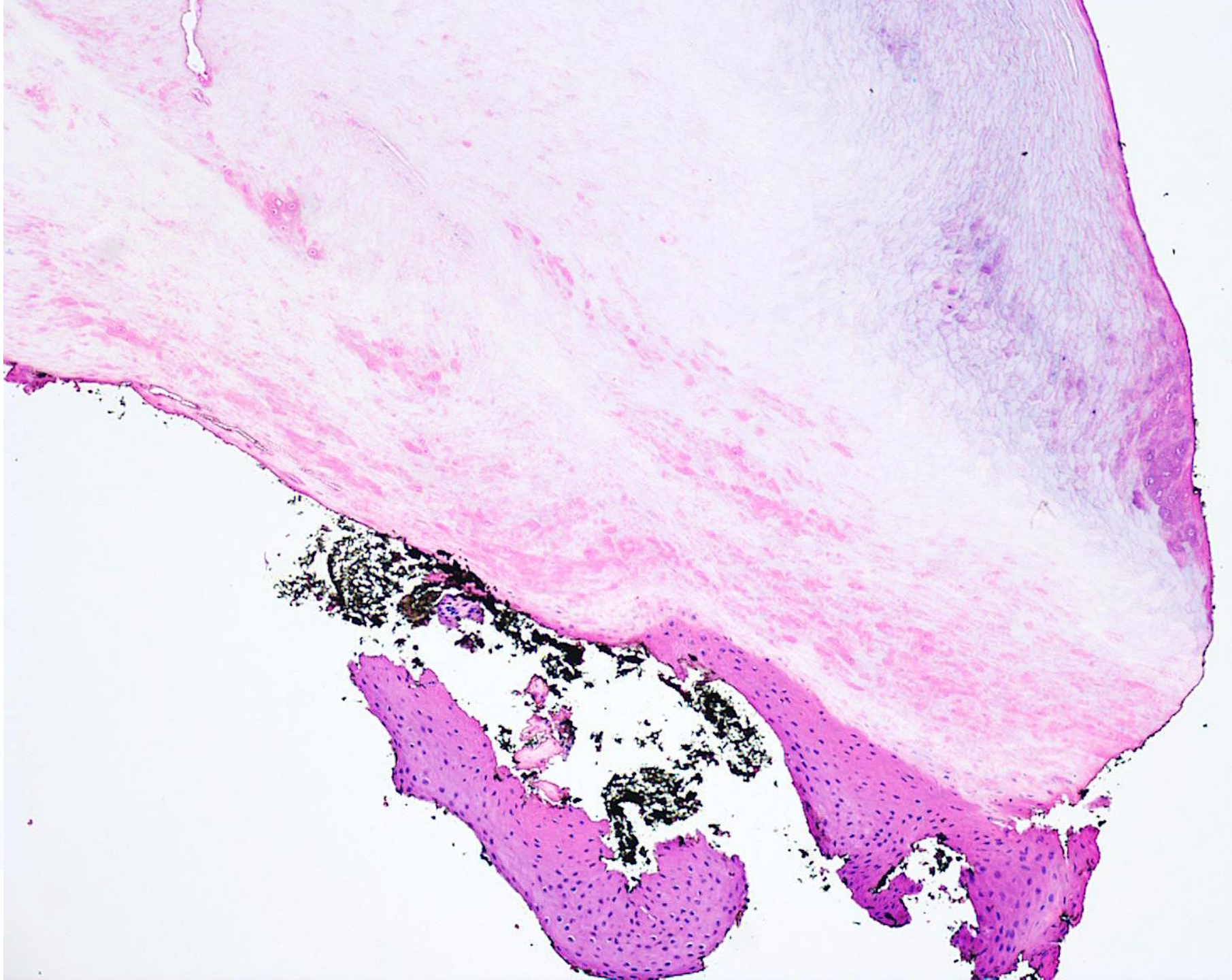
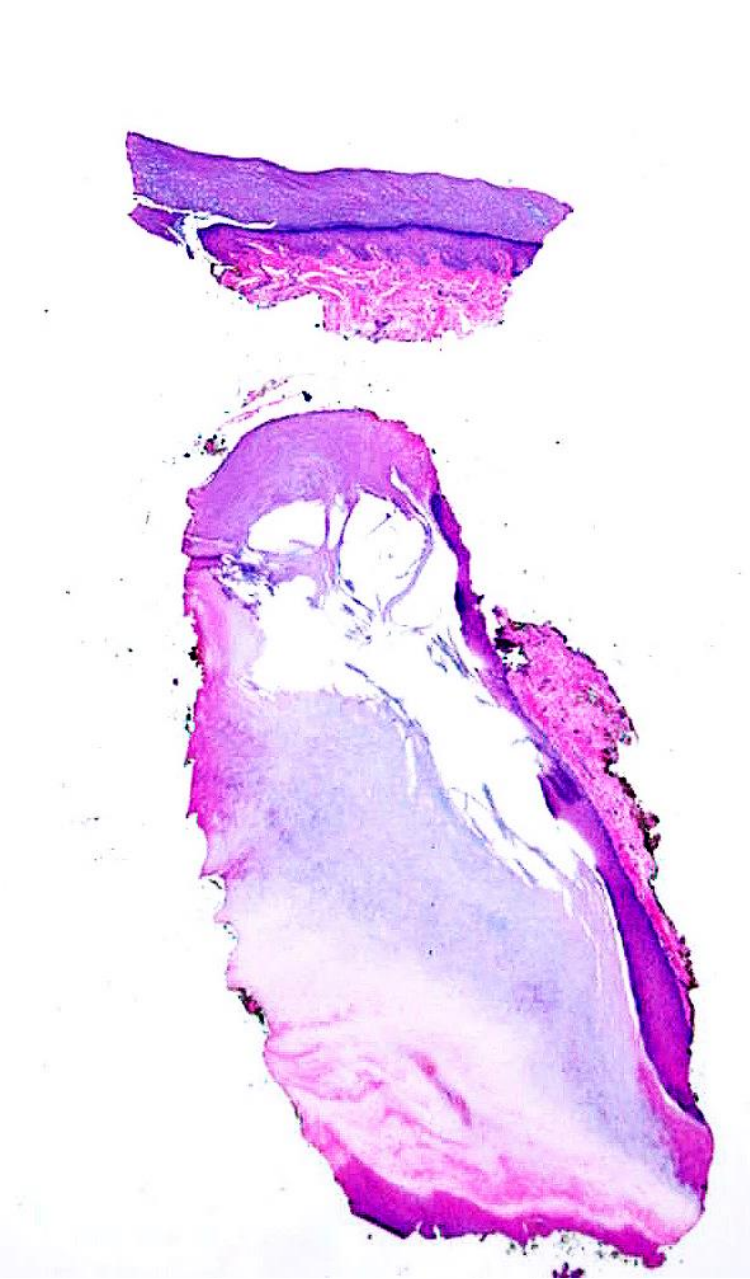
- **Minimal Diagnostic Criteria:**

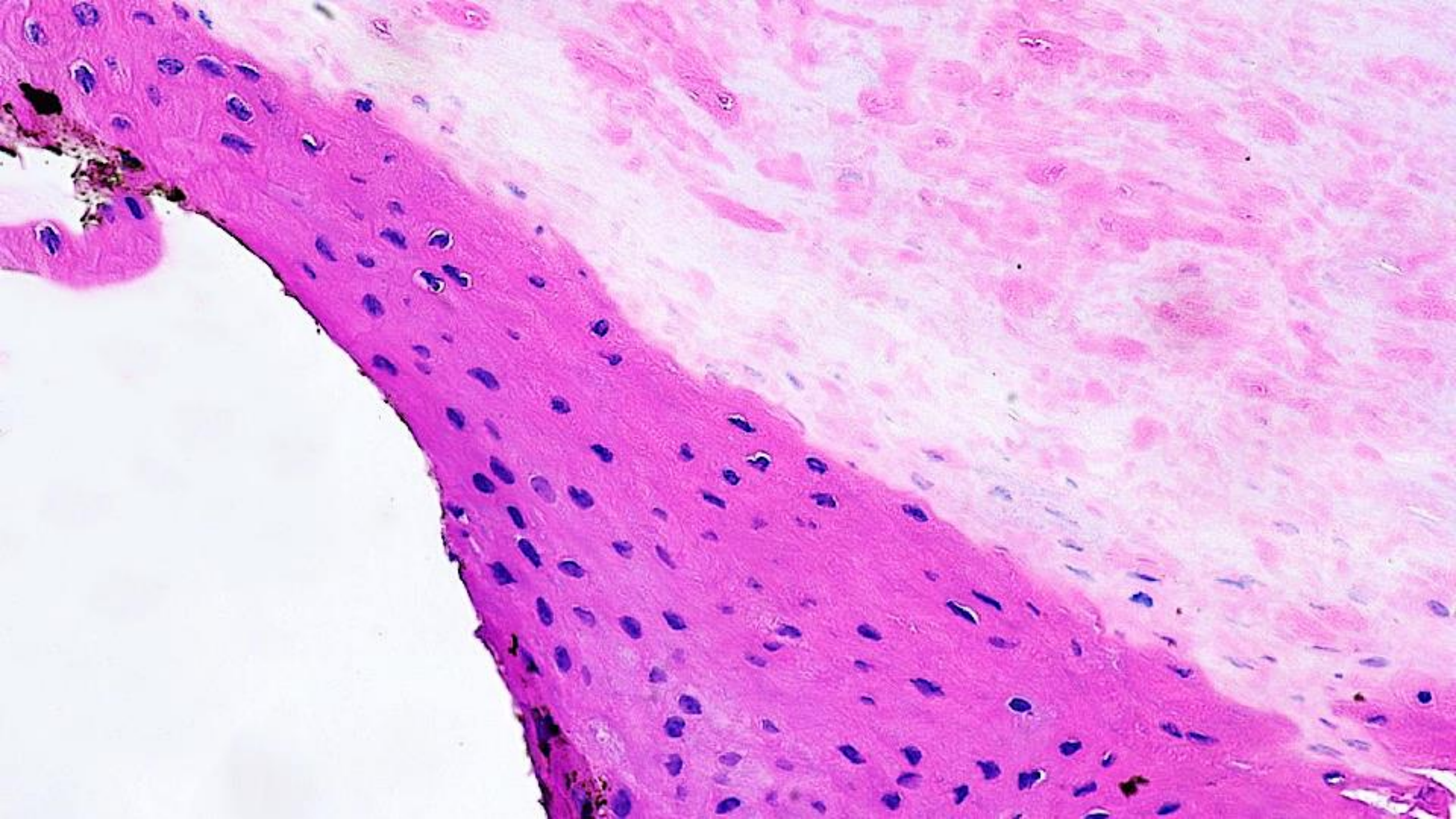
- Intradermal glandular proliferation, extending deep into the reticular dermis
- Well-organized glands with cystic dilatation
- Glandular space is lined by a single layer of apocrine cells
- Large, epithelioid cells with eosinophilic cytoplasm, decapitation secretion and hyperchromatic nuclei

- **Differential Diagnosis:**

- Apocrine hidrocystoma
- Median raphe cyst







Case 123. 59F with Right 3rd toenail bed, r/o malignancy . What is your diagnosis?

A. Epidermoid cyst

B. Keratoacanthoma

C. Epidermal (follicular infundibular) cyst

D. Pilar (Trichilemmal) cyst

E. Subungual onycholemmal cyst

Case 123. 59F with Right 3rd toenail bed, r/o malignancy . What is your diagnosis?

A. Epidermoid cyst

B. Keratoacanthoma

C. Epidermal (follicular infundibular) cyst

D. Pilar (Trichilemmal) cyst

E. Subungual onycholemmal cyst

Summary: Subungual onycholemmal cyst

- **Teaching Points:**

- Resembles hair-bearing cutaneous epidermal cyst

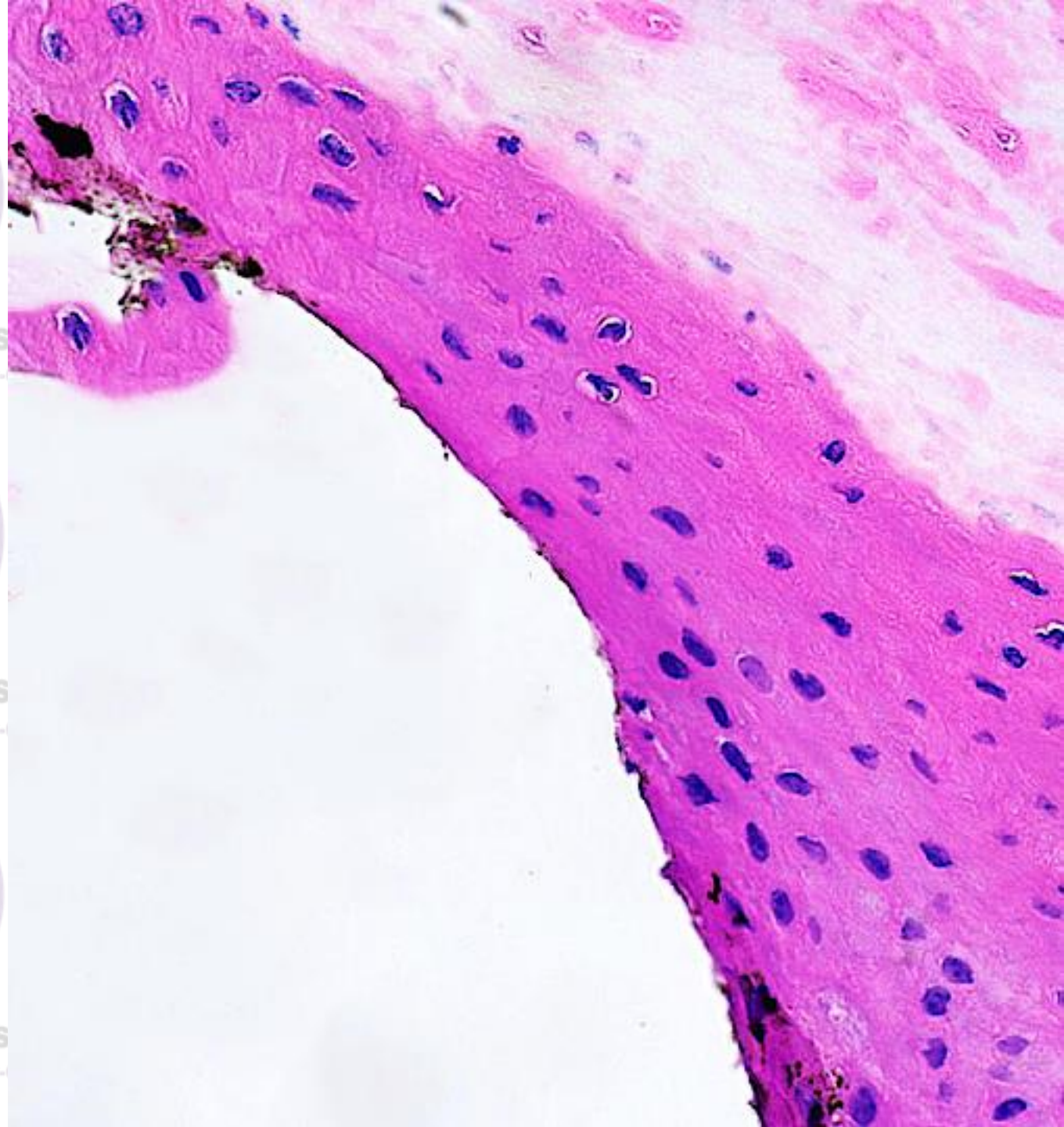
- **Minimal Diagnostic Criteria:**

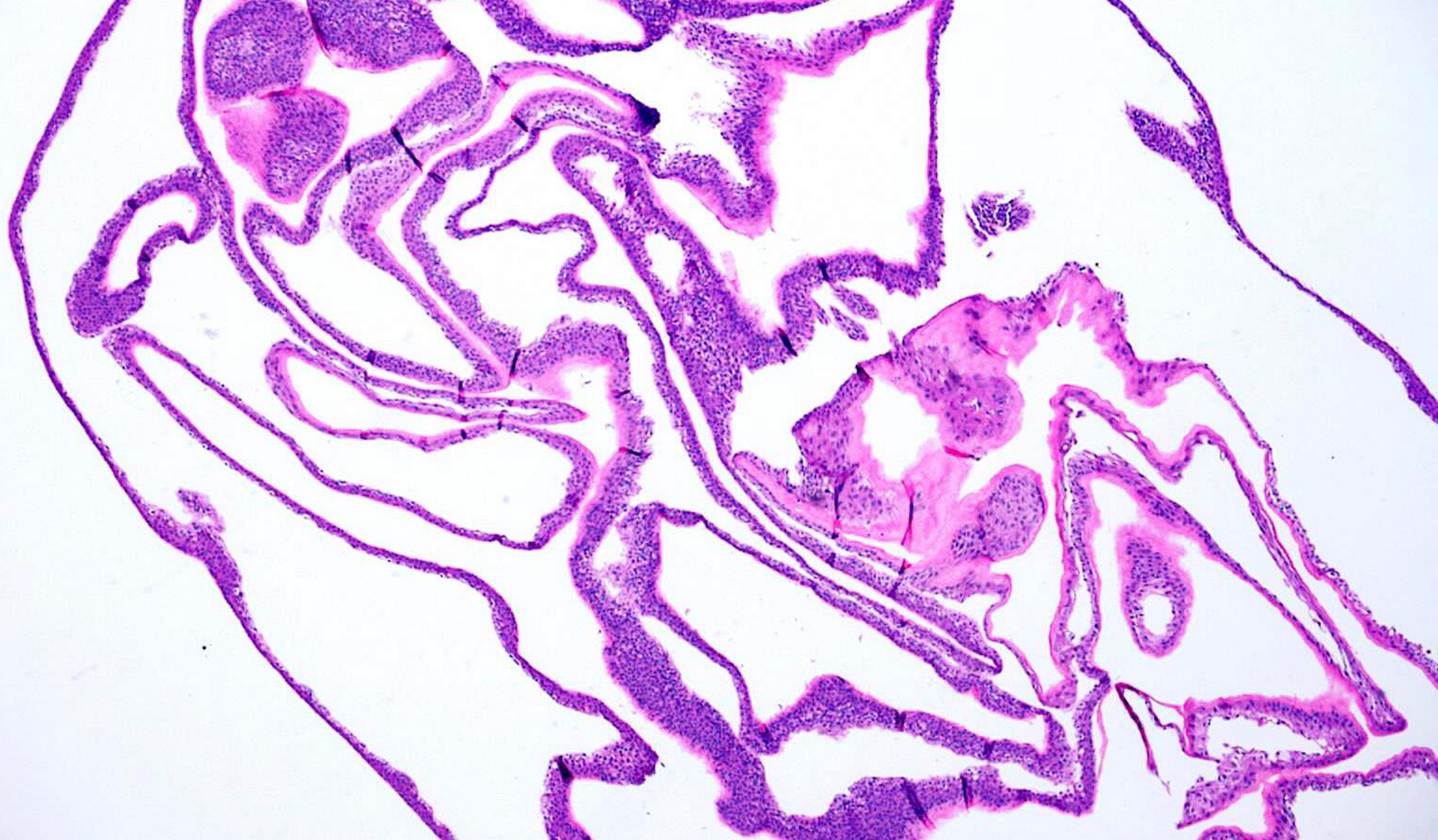
- Benign invagination of nailbed epithelium
- Stratified squamous lining
- No granular cell layer
- No hypergranulosis or alternating orthokeratosis vs. parakeratosis
- Dense eosinophilic cyst content

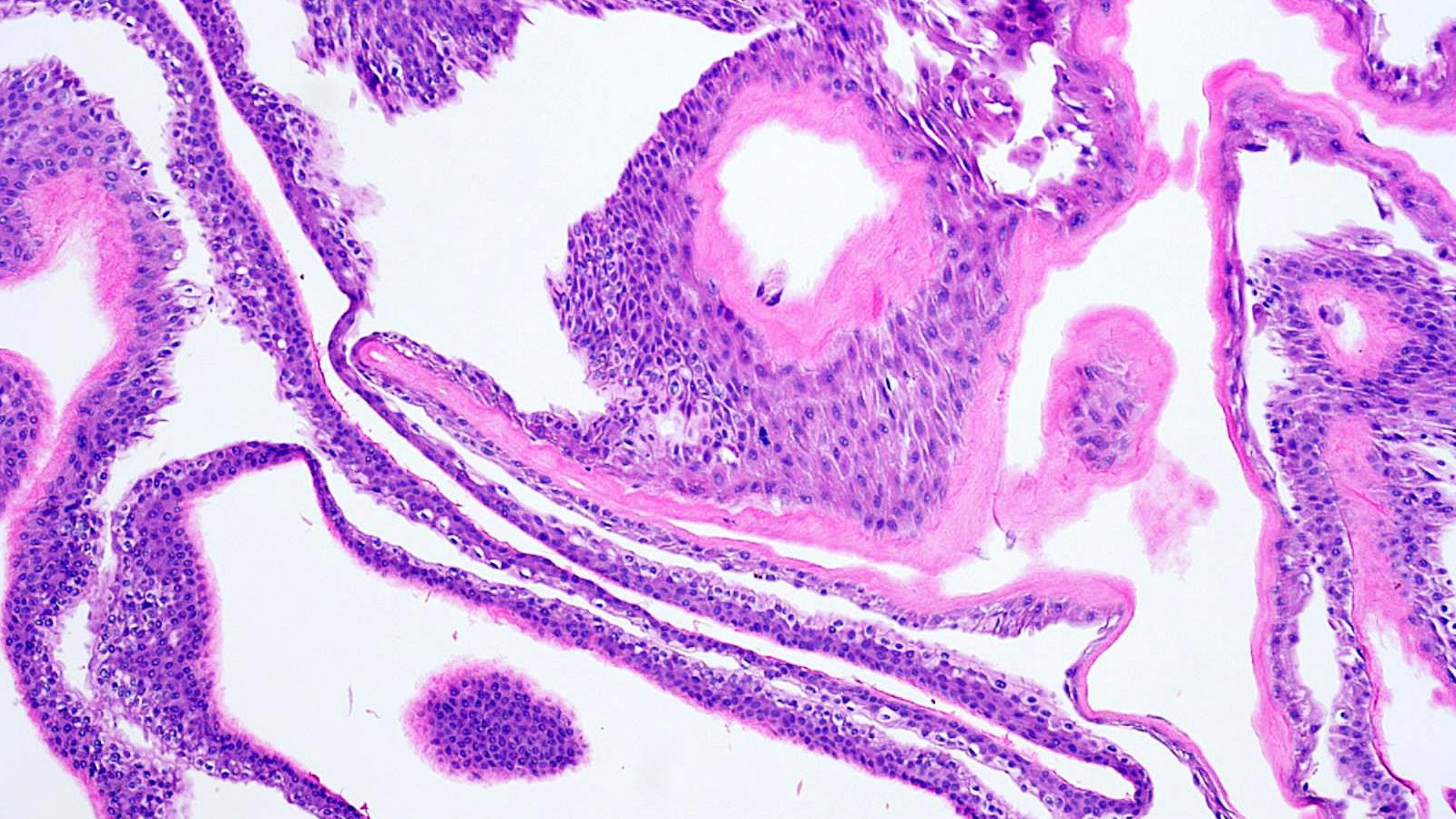
- **Differential Diagnosis:**

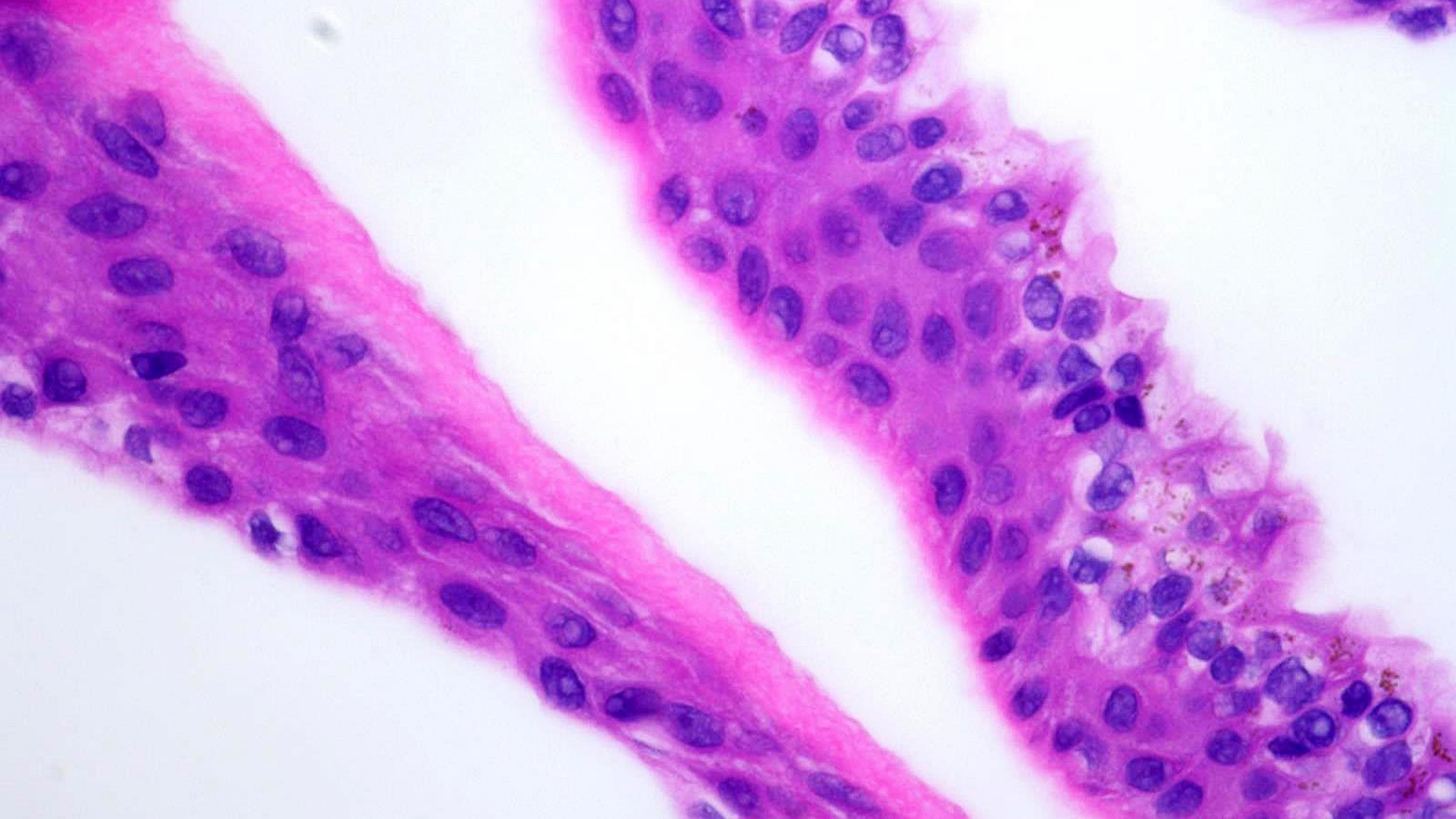
- Pilar cyst
- Subungual wart
- Cystic squamous cell carcinoma

Reference: Busquets, J. et al. Subungual Onycholemmal Cyst of the Toenail Mimicking Subungual Melanoma. Cutis. 2016 August;98(2):107-110









Case 124. 70F with nasal bulbar cystic lesion . What is your diagnosis?

A. Epidermoid cyst

B. Conjunctival cyst

C. Epidermal (follicular infundibular) cyst

D. Pilar (Trichilemmal) cyst

E. Cystic squamous cell carcinoma

Case 124. 70F with nasal bulbar cystic lesion . What is your diagnosis?

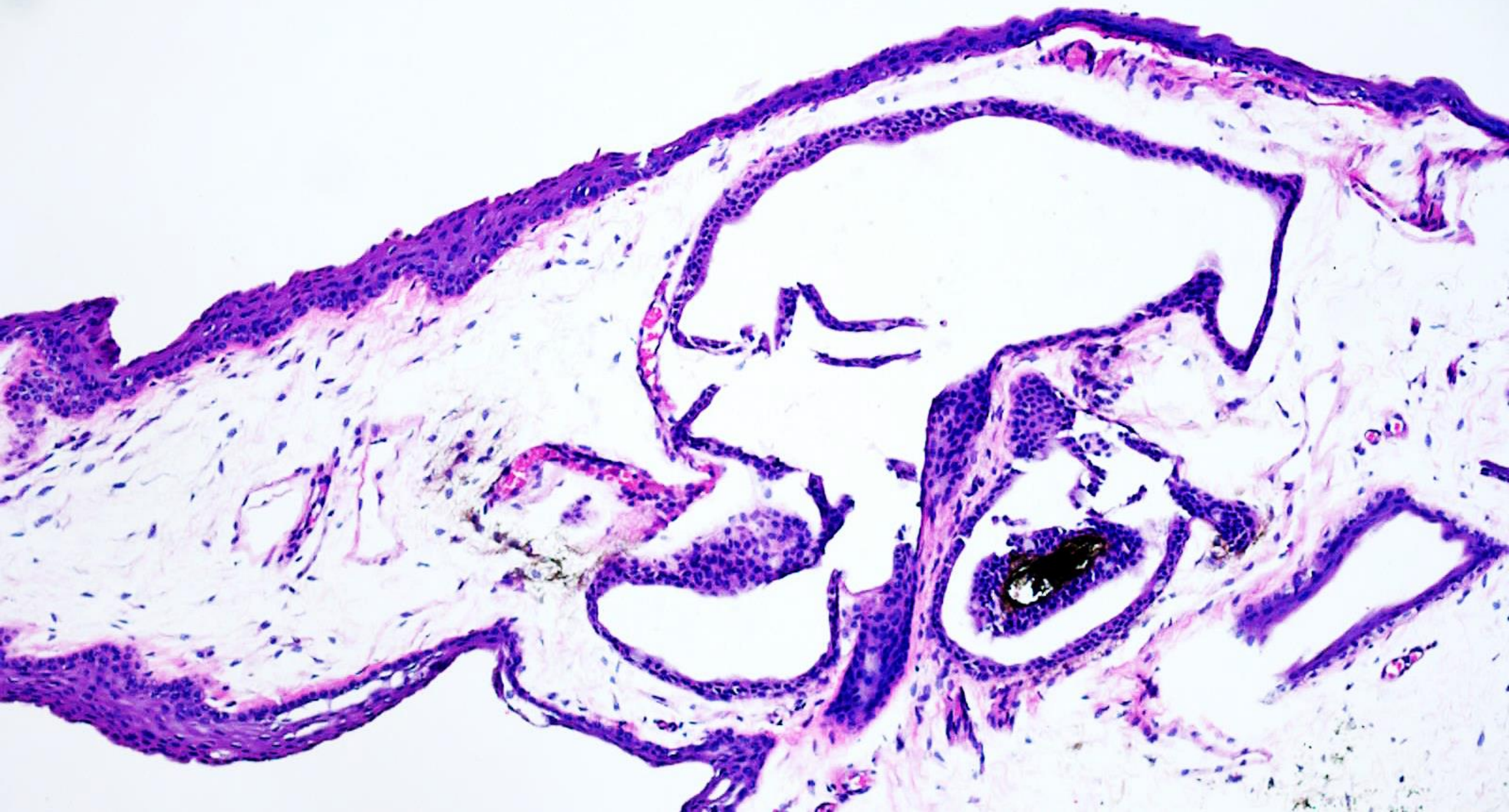
A. Epidermoid cyst

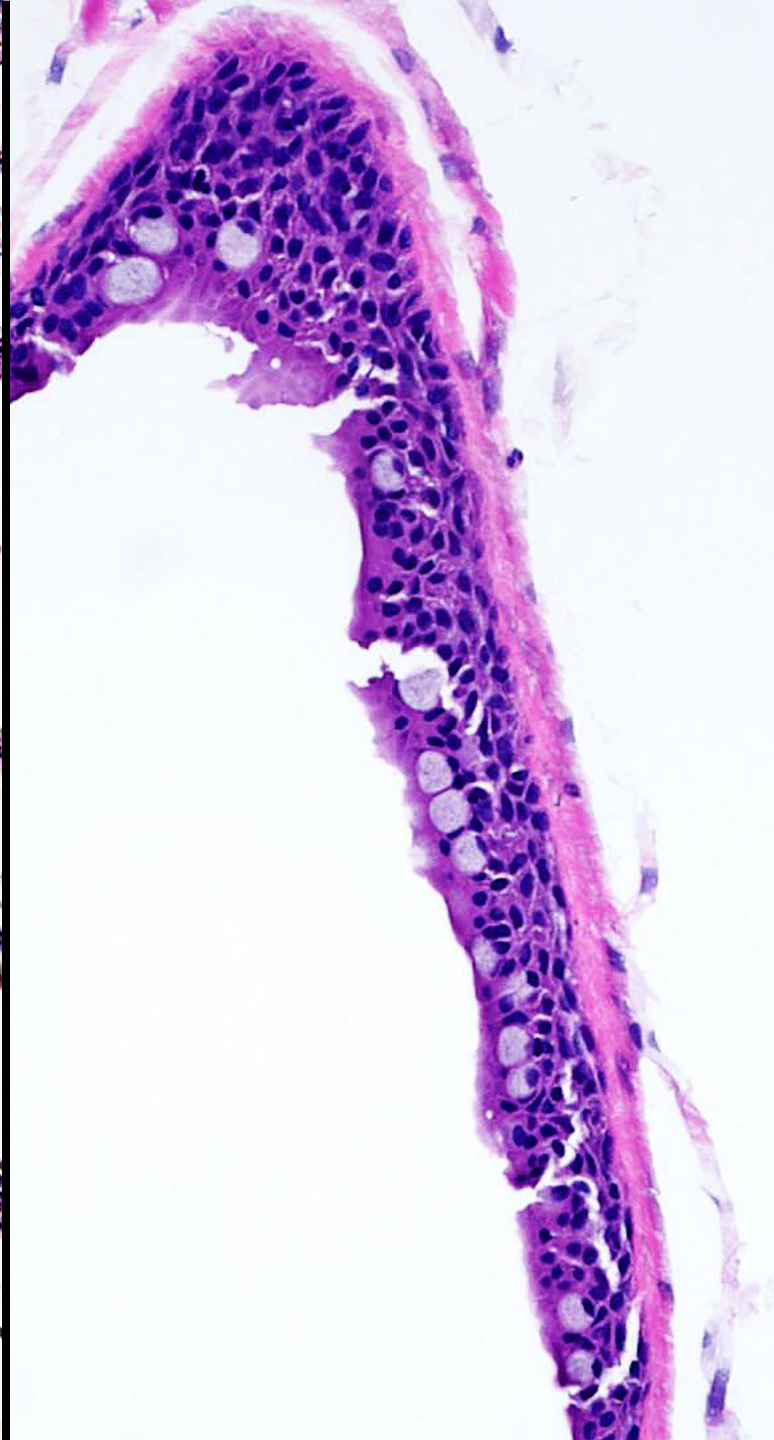
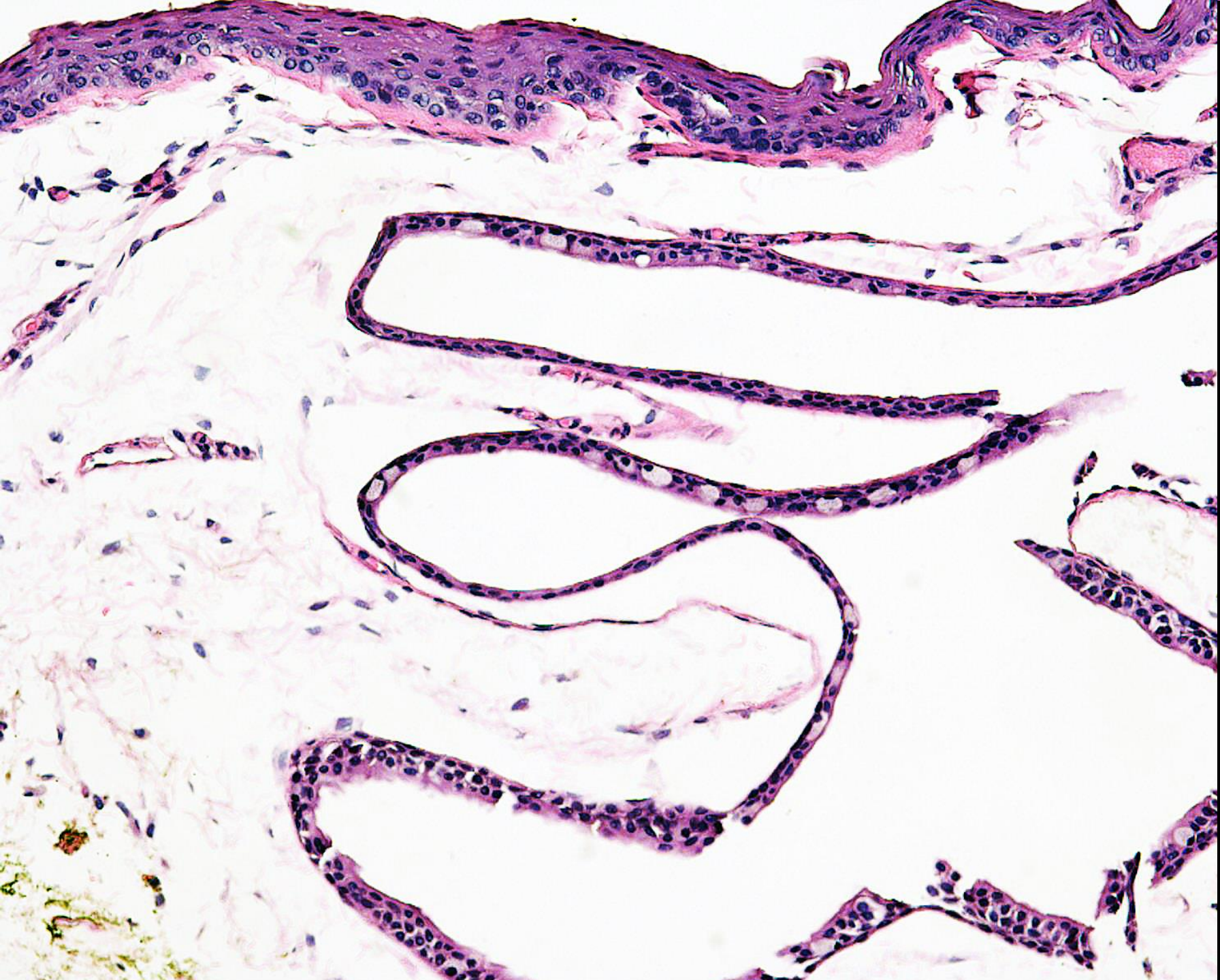
B. Conjunctival cyst

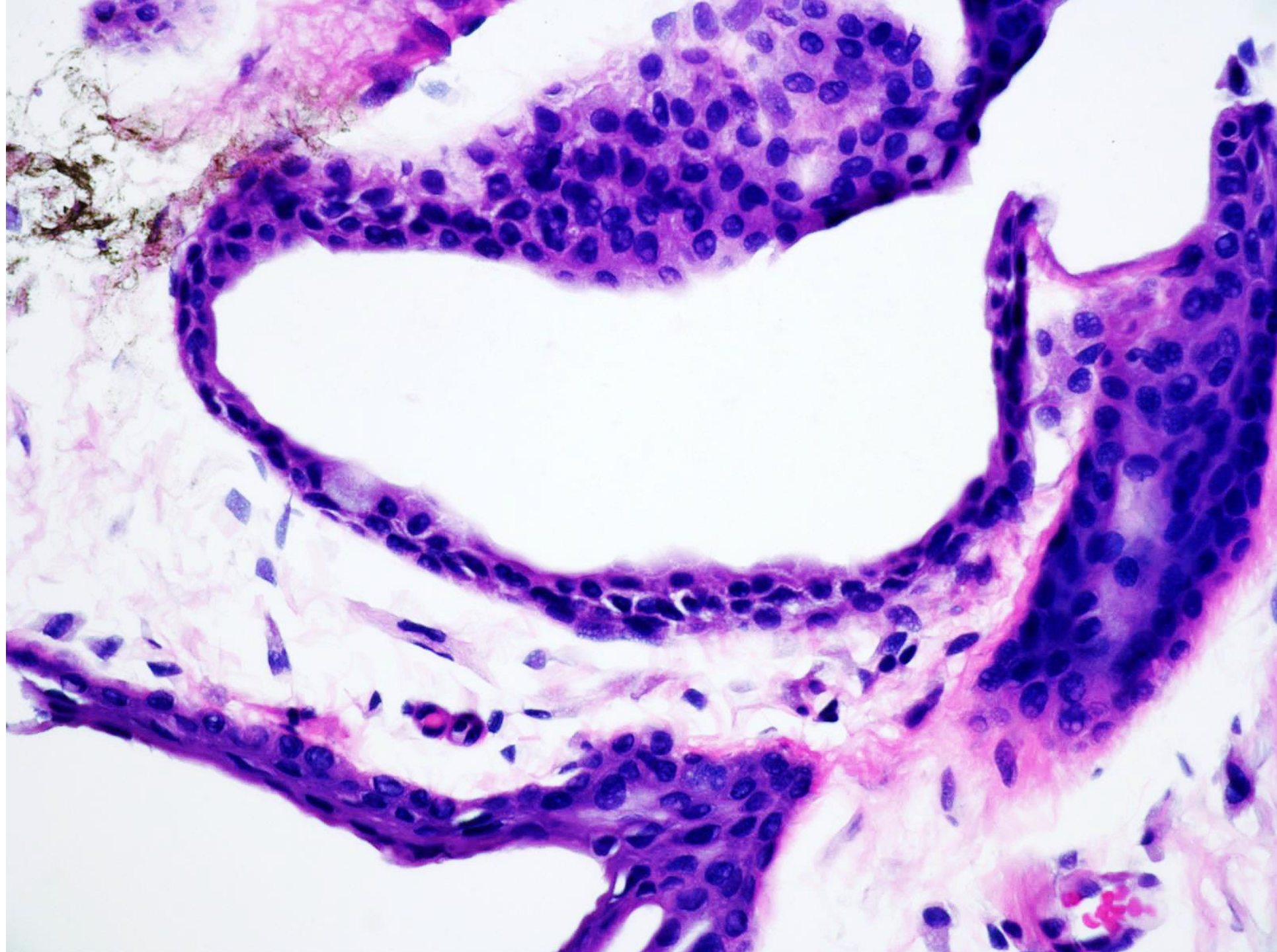
C. Epidermal (follicular infundibular) cyst

D. Pilar (Trichilemmal) cyst

E. Cystic squamous cell carcinoma







Case 125. 66F with OD lesion of temporal right eye.

What is your diagnosis?

A. Epidermoid cyst

B. Conjunctival cyst

C. Epidermal (follicular infundibular) cyst

D. Pilar (Trichilemmal) cyst

E. Cystic squamous cell carcinoma

Case 125. 66F with OD lesion of temporal right eye.

What is your diagnosis?

A. Epidermoid cyst

B. Conjunctival cyst

C. Epidermal (follicular infundibular) cyst

D. Pilar (Trichilemmal) cyst

E. Cystic squamous cell carcinoma

Summary:

Conjunctival cyst

- **Teaching Points:**

- Usually unilocular (simple) cystic space (may appear multiloculated, if a large expansile cyst)

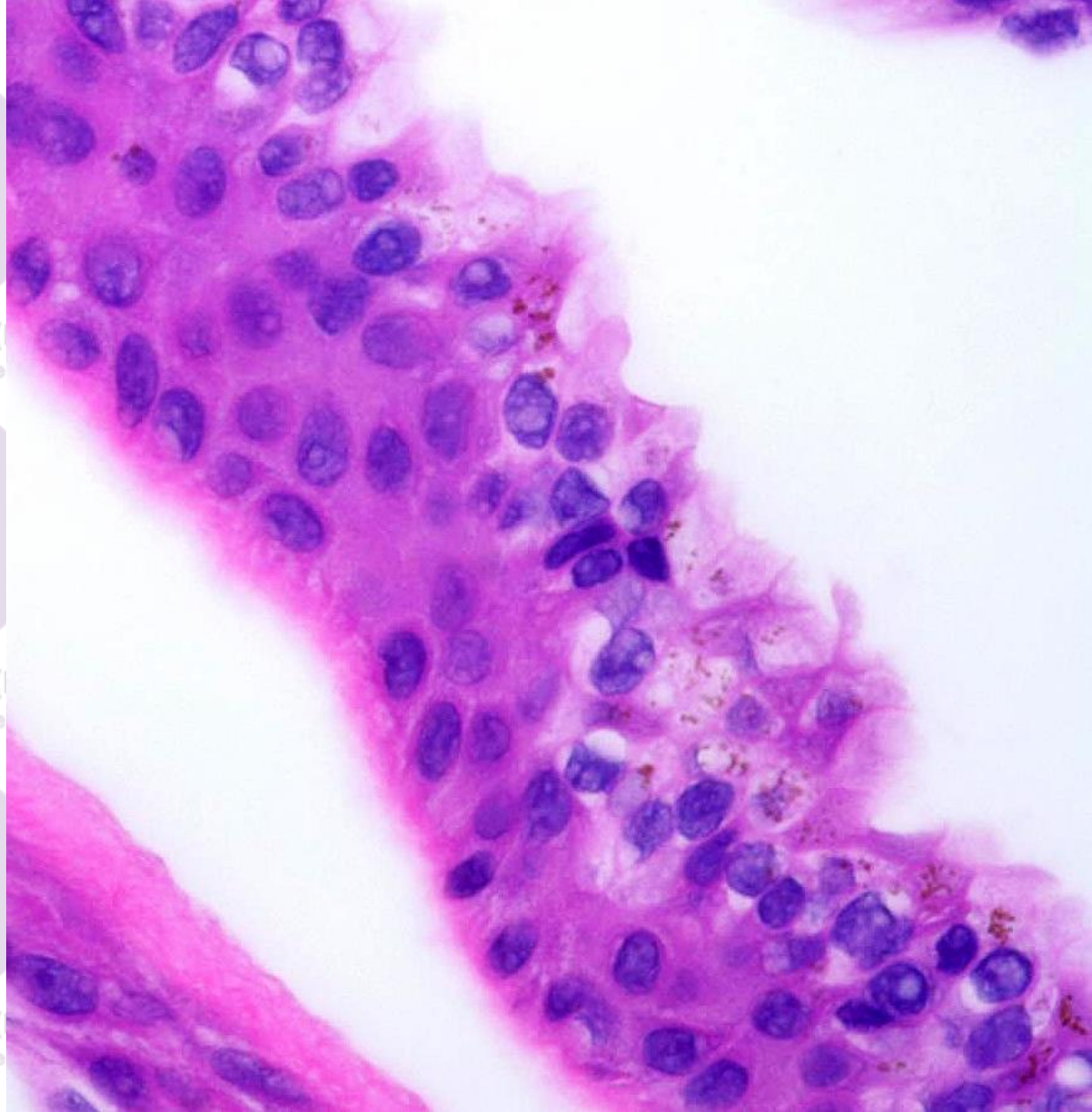
- **Minimal Diagnostic Criteria:**

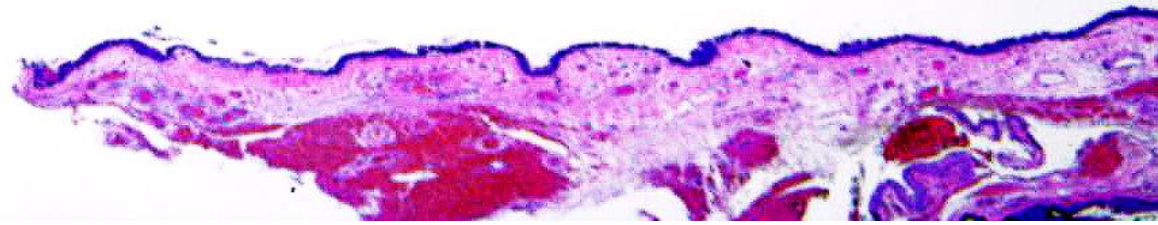
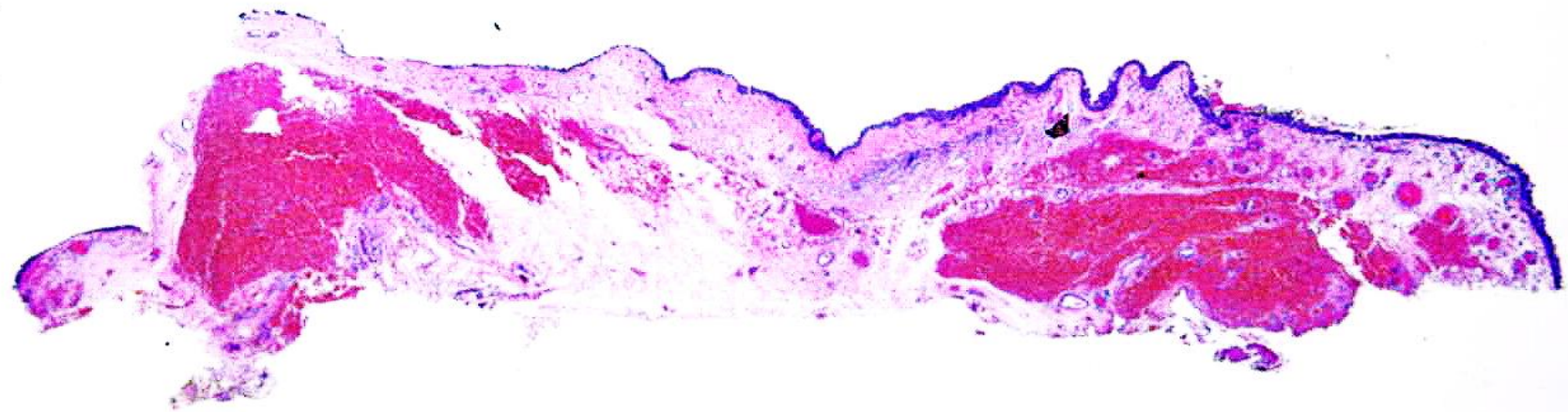
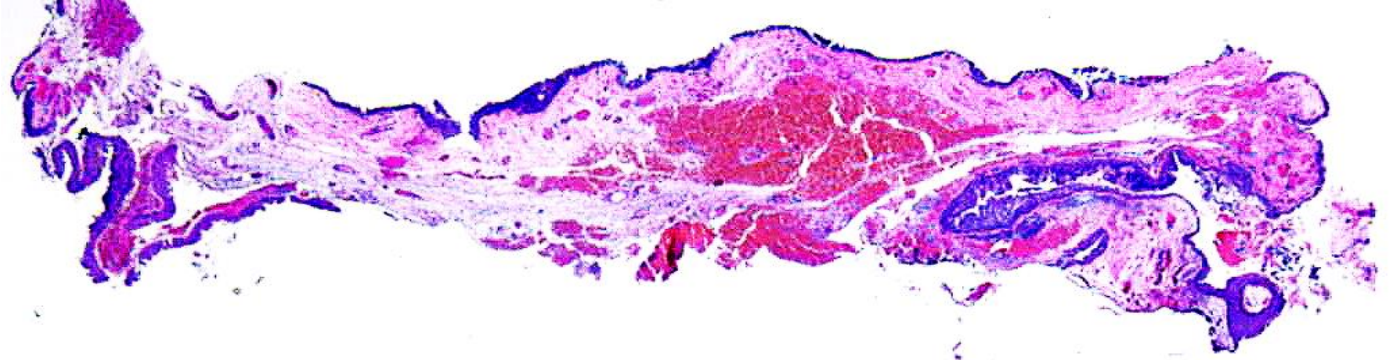
- Epithelial-lined cyst is composed of thin layer of cuboidal, squamous cells
- No stratum corneum or granular cell layer
- May see goblet cells in the lining
- Intercellular bridges confirm squamous lineage

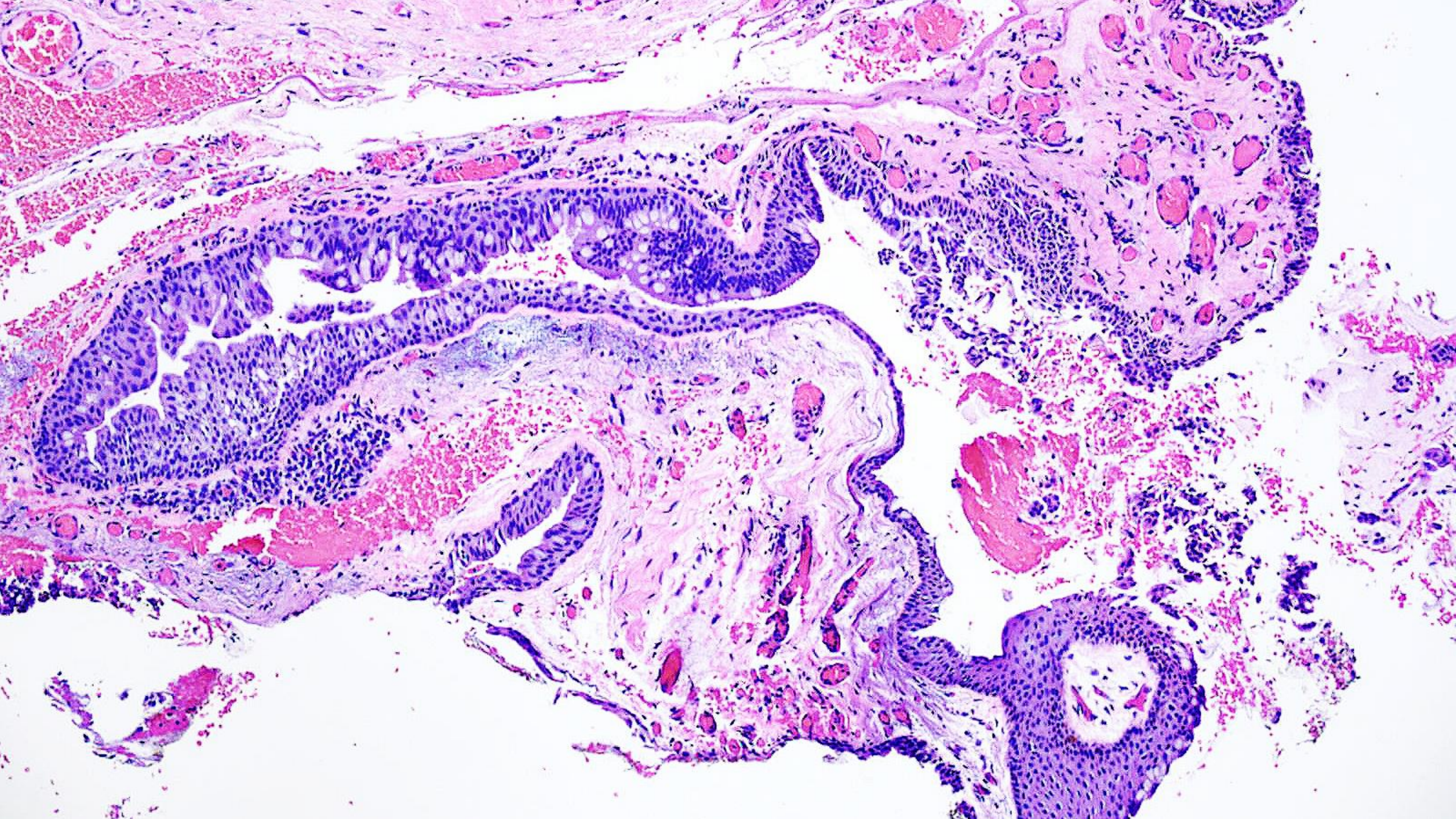
- **Differential Diagnosis:**

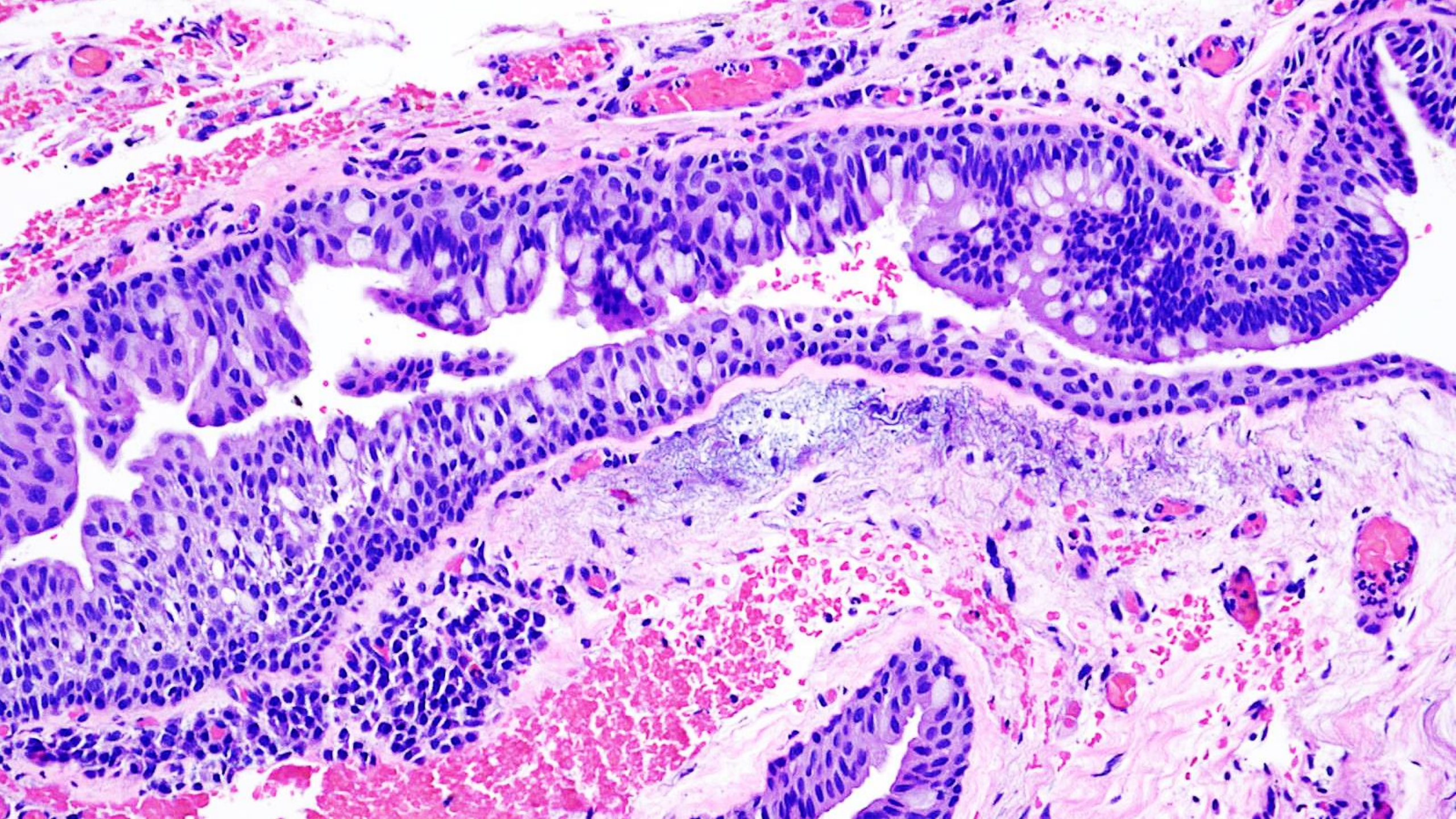
- Pterygium
- Epidermal cyst
- Cystic squamous cell carcinoma

Reference: Thatte S, et al. Clinical study of histologically proven conjunctival cysts. Saudi J Ophthalmol. 2015 Apr-Jun;29(2):109-15. PMID: 25892928; PMCID: PMC4398796.









Case 126. 87M, right eye lesion. What is your diagnosis?

A. Epidermoid cyst

B. Conjunctival cyst

C. Pterygium with cystic change

D. Pilar (Trichilemmal) cyst

E. Cystic squamous cell carcinoma

Case 126. 87M, right eye lesion. What is your diagnosis?

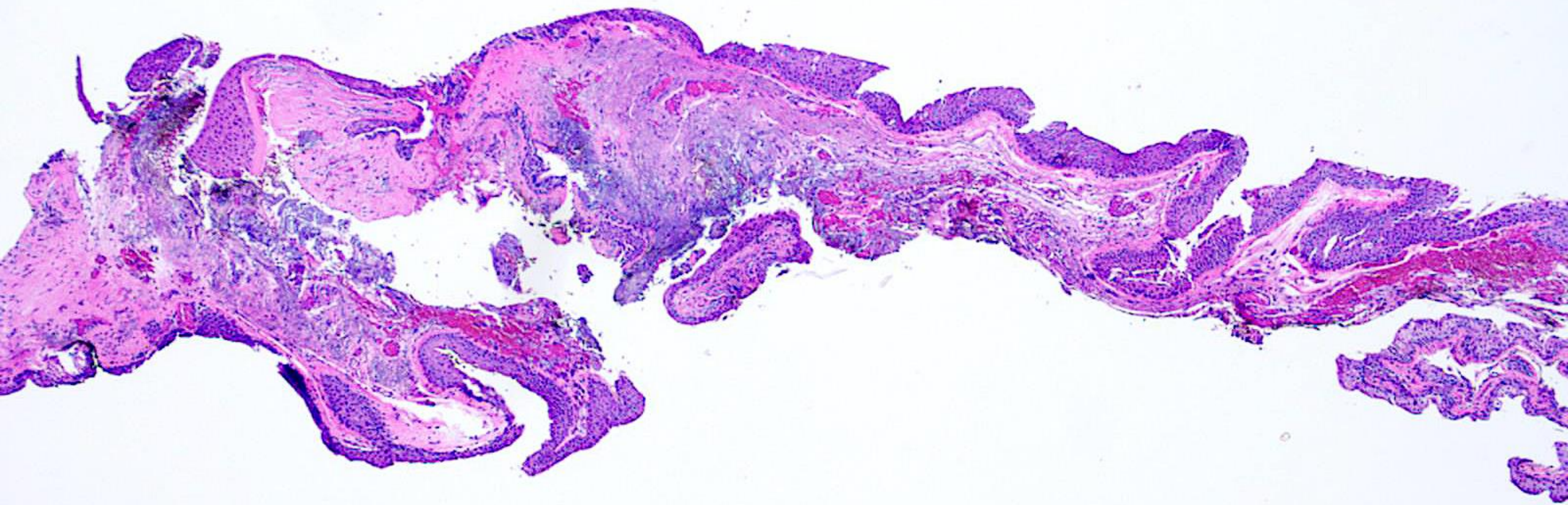
A. Epidermoid cyst

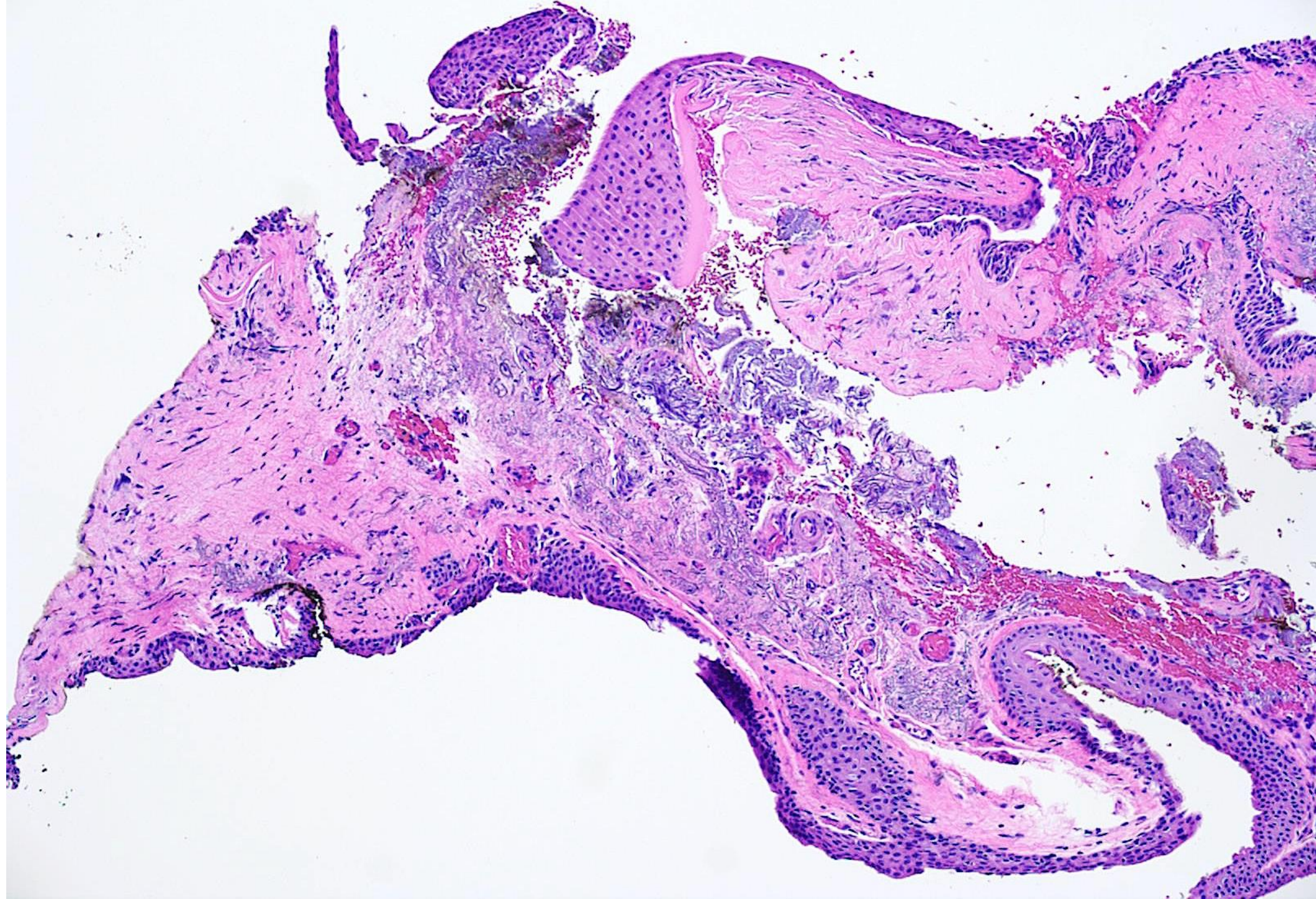
B. Conjunctival cyst

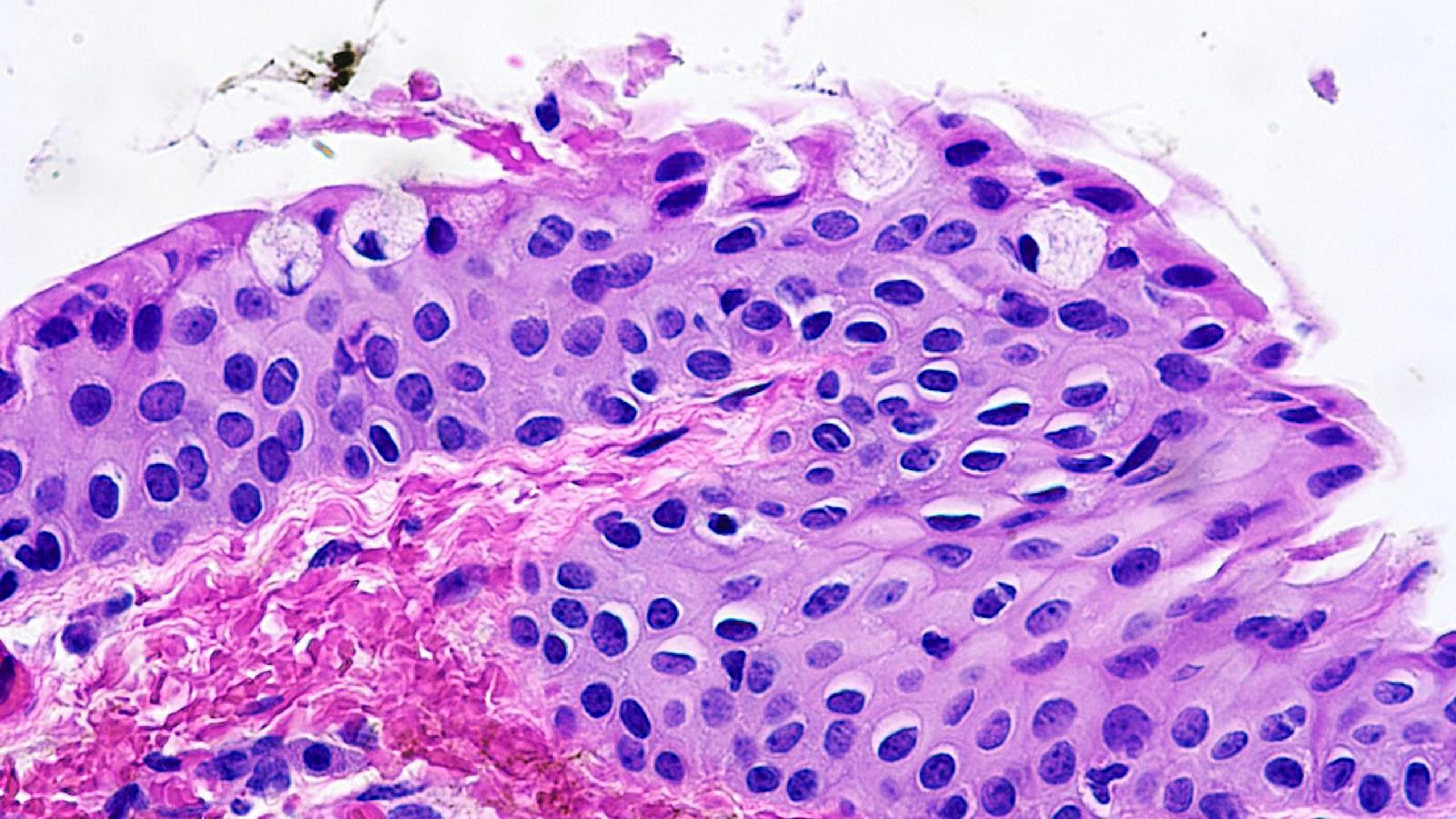
C. Pterygium with cystic change

D. Pilar (Trichilemmal) cyst

E. Cystic squamous cell carcinoma







Case 126. 64F, right eye lesion. What is your diagnosis?

A. Epidermoid cyst

B. Conjunctival cyst

C. Pterygium

D. Pilar (Trichilemmal) cyst

E. Cystic squamous cell carcinoma

Case 126. 64F, right eye lesion. What is your diagnosis?

A. Epidermoid cyst

B. Conjunctival cyst

C. Pterygium

D. Pilar (Trichilemmal) cyst

E. Cystic squamous cell carcinoma

Summary: Pterygium

- **Teaching Points:**

- Some cases of pterygium (~38%) may exhibit cystic change

- **Minimal Diagnostic Criteria:**

- Solar purpura in lamina propria
- Solar elastosis in lamina propria
- Reactive vascular prominence with telangiectasia
- Goblet cell hyperplasia
- Crowded conjunctival epithelial hyperplasia without atypia or mitoses (not carcinoma in situ)

- **Differential Diagnosis:**

- Conjunctival cyst
- Conjunctival squamous cell carcinoma in situ
- Goblet cell adenocarcinoma

