

Basal Cell Carcinoma- NOS is a NONO!

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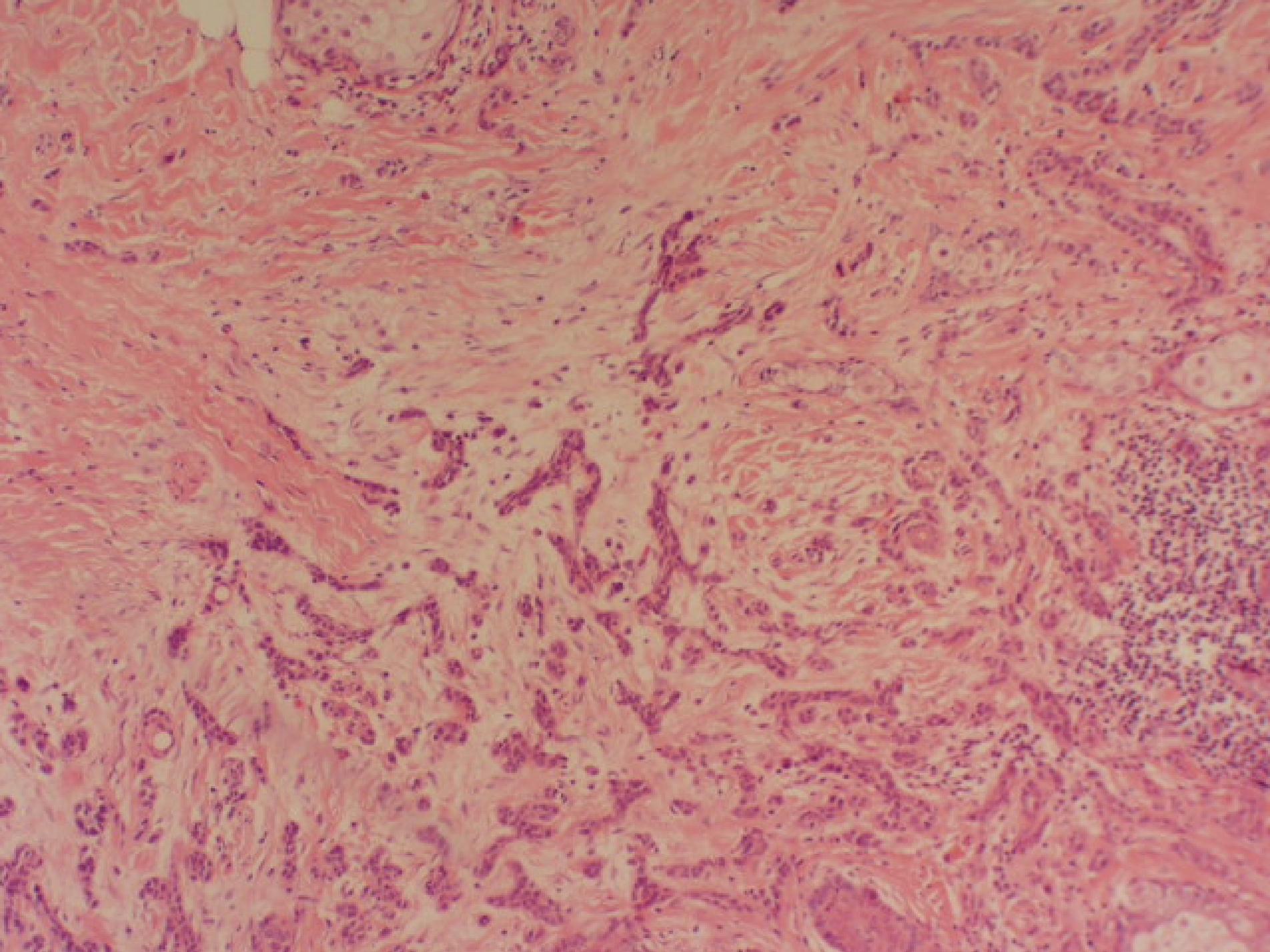
5/21/2003

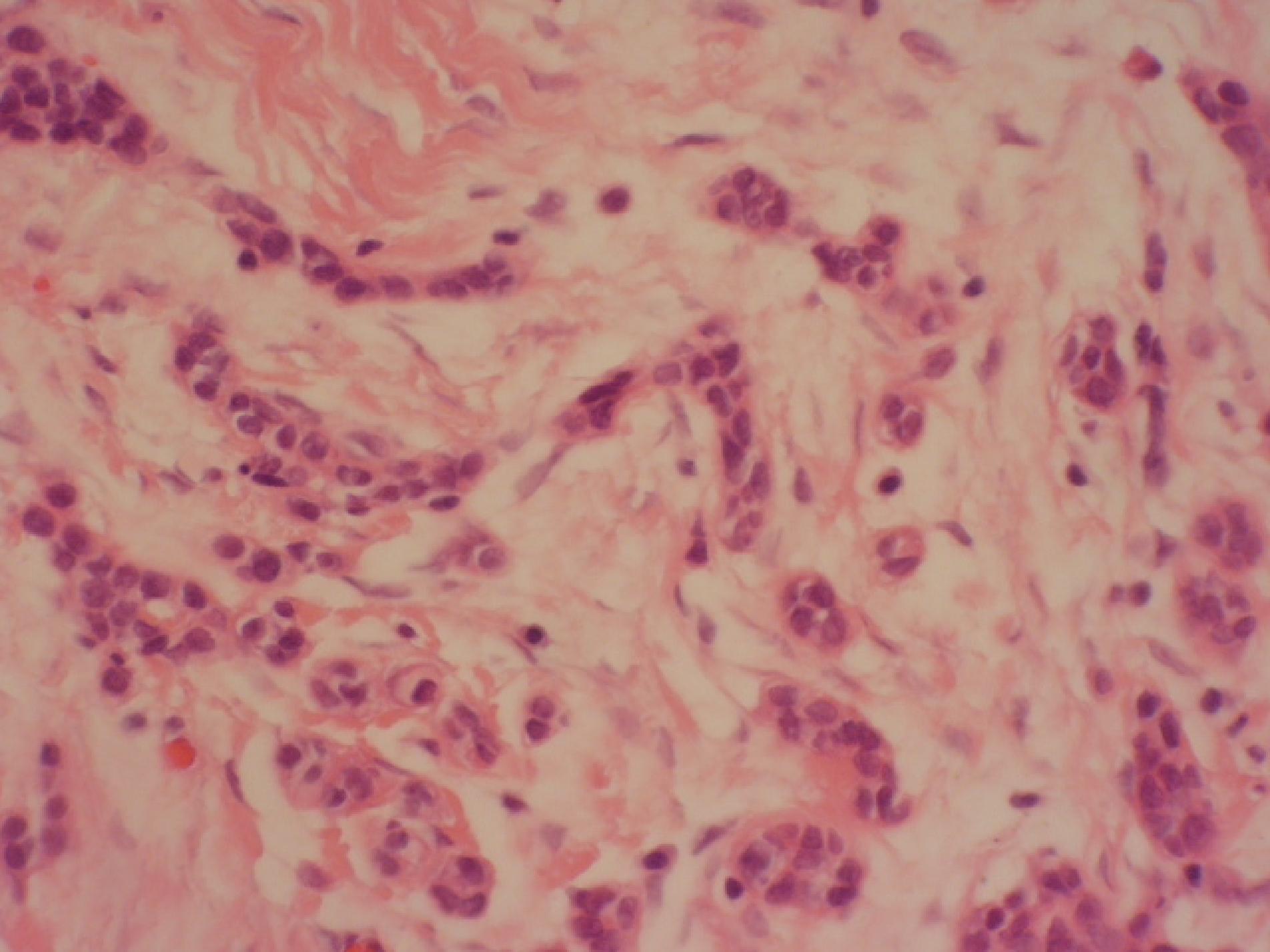
Aggressive BCC Histologies

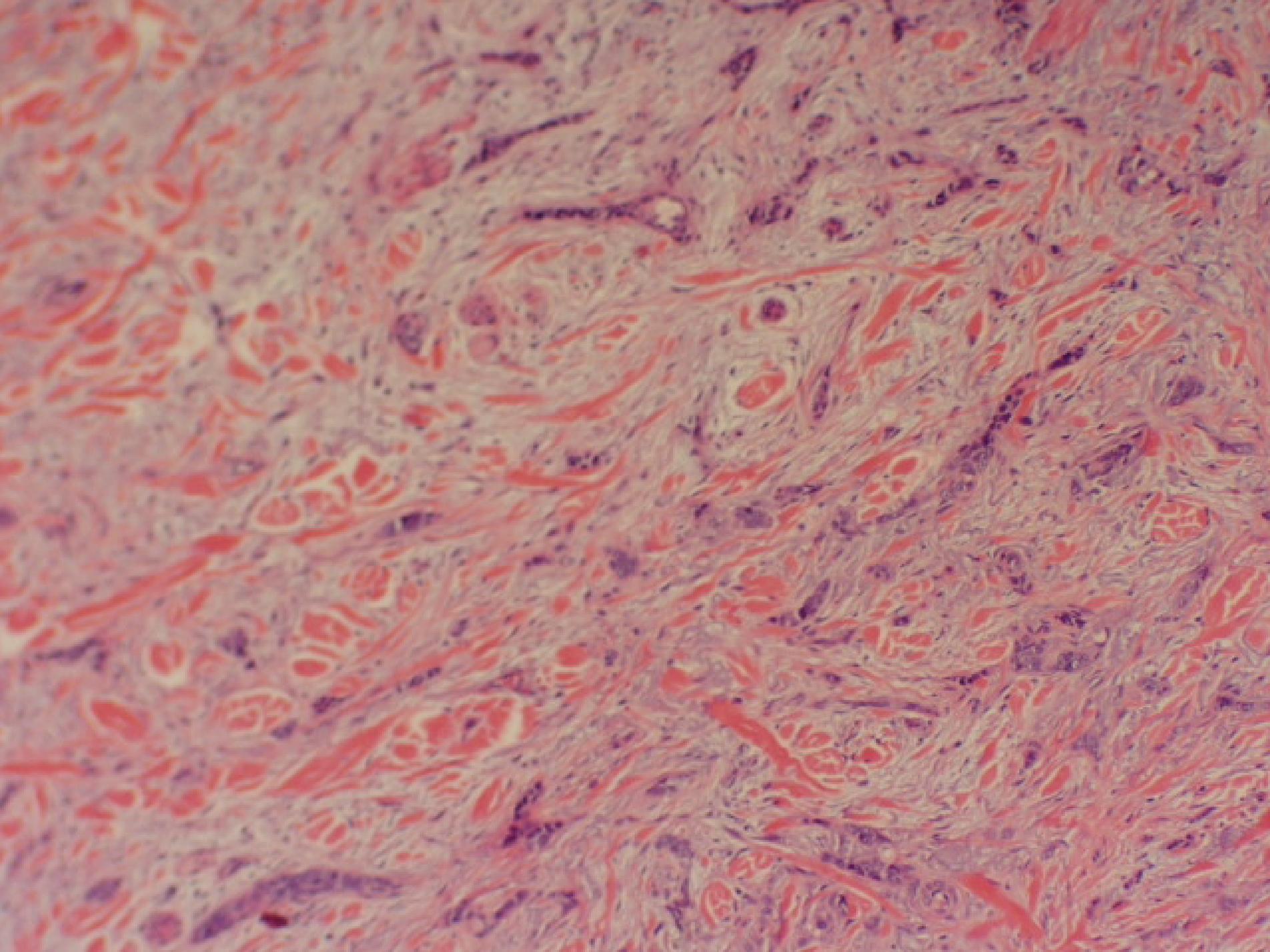
- Morpheaform/Sclerosing
- Infiltrative
- Micronodular
- Combined

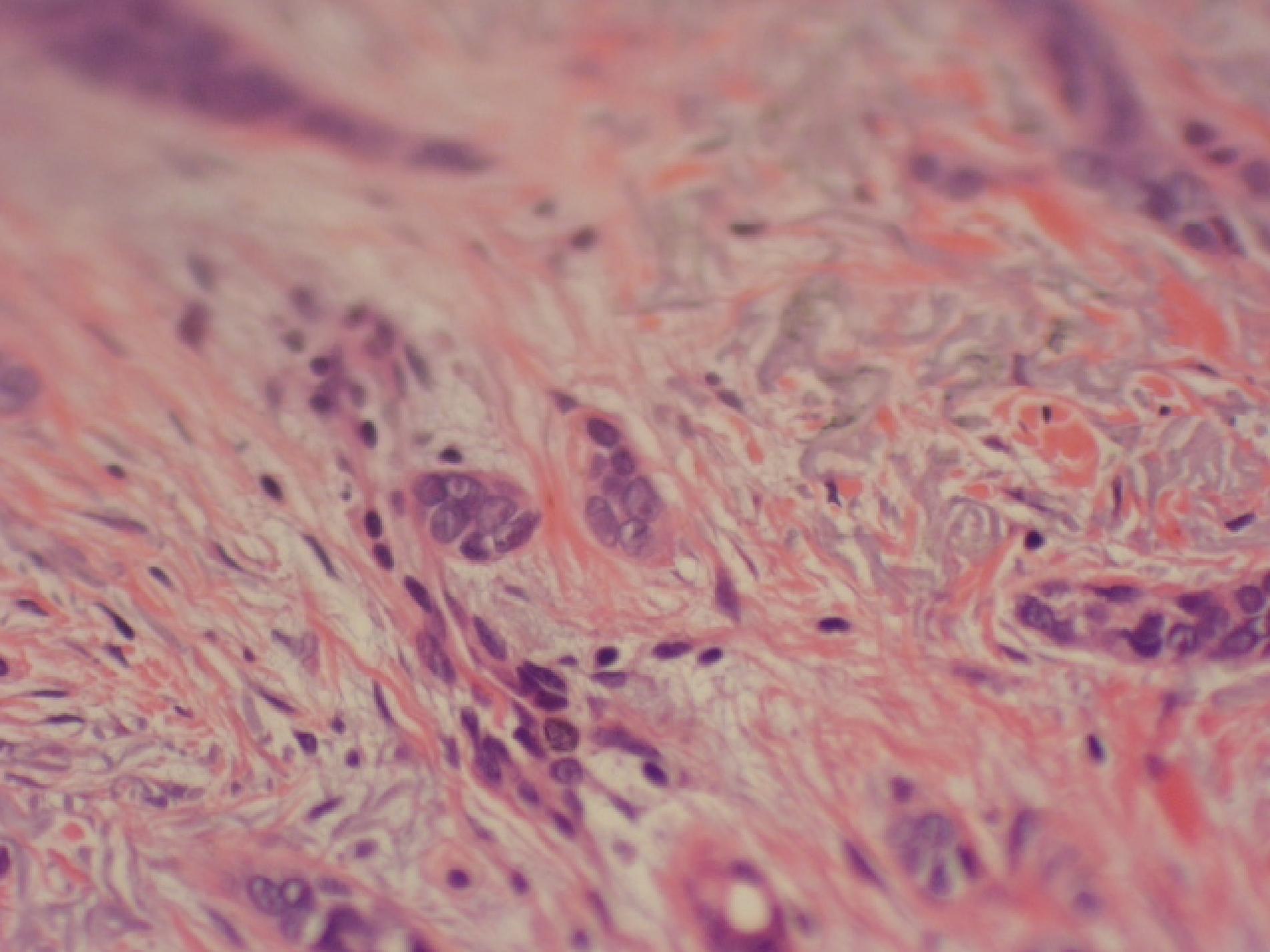
Morpheaform/Sclerosing

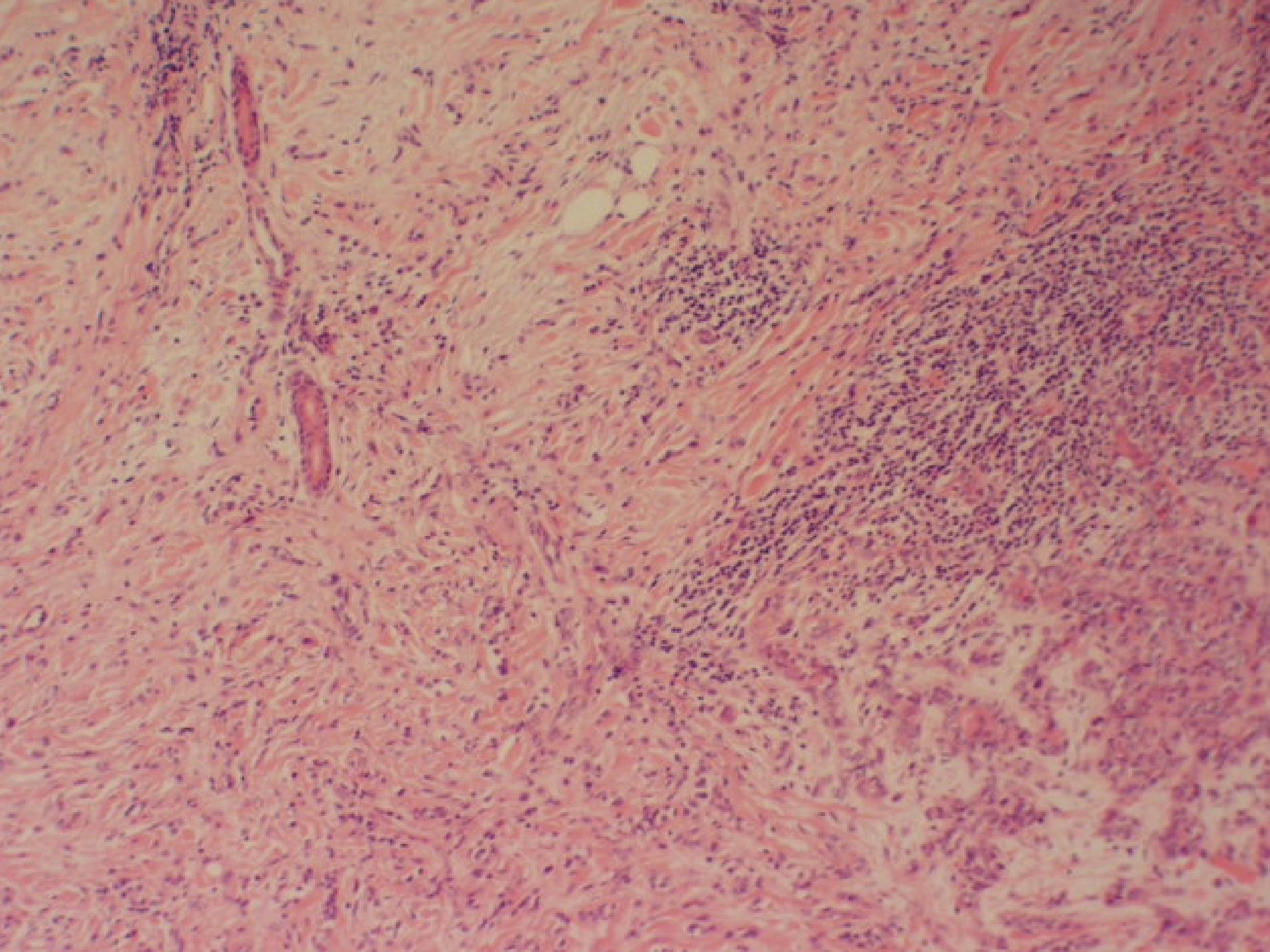
- Angular nests of basaloid cells eliciting a desmoplastic stromal host response
- Morpheaform to denote small linear infiltrating cords in a dense stroma

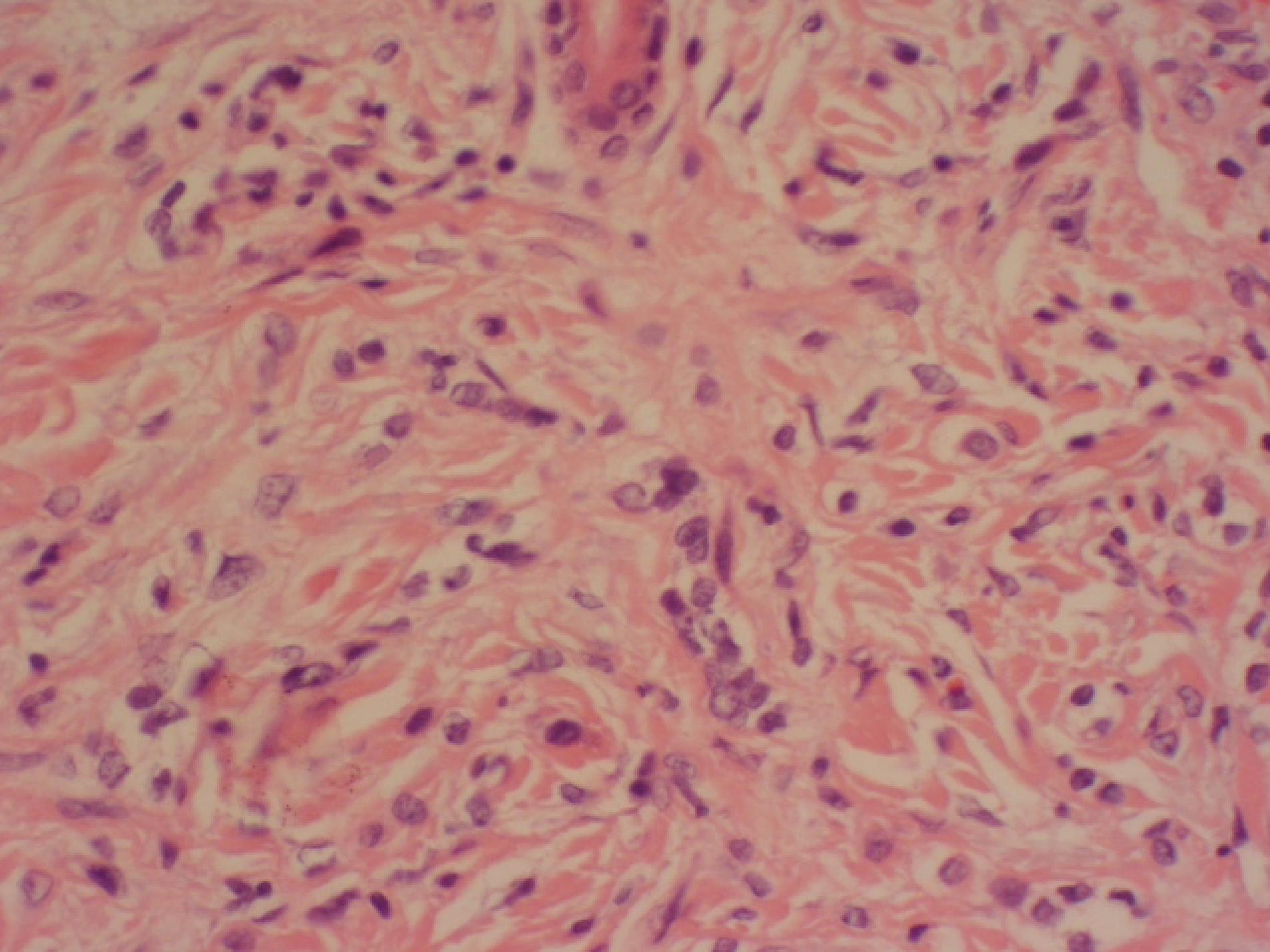






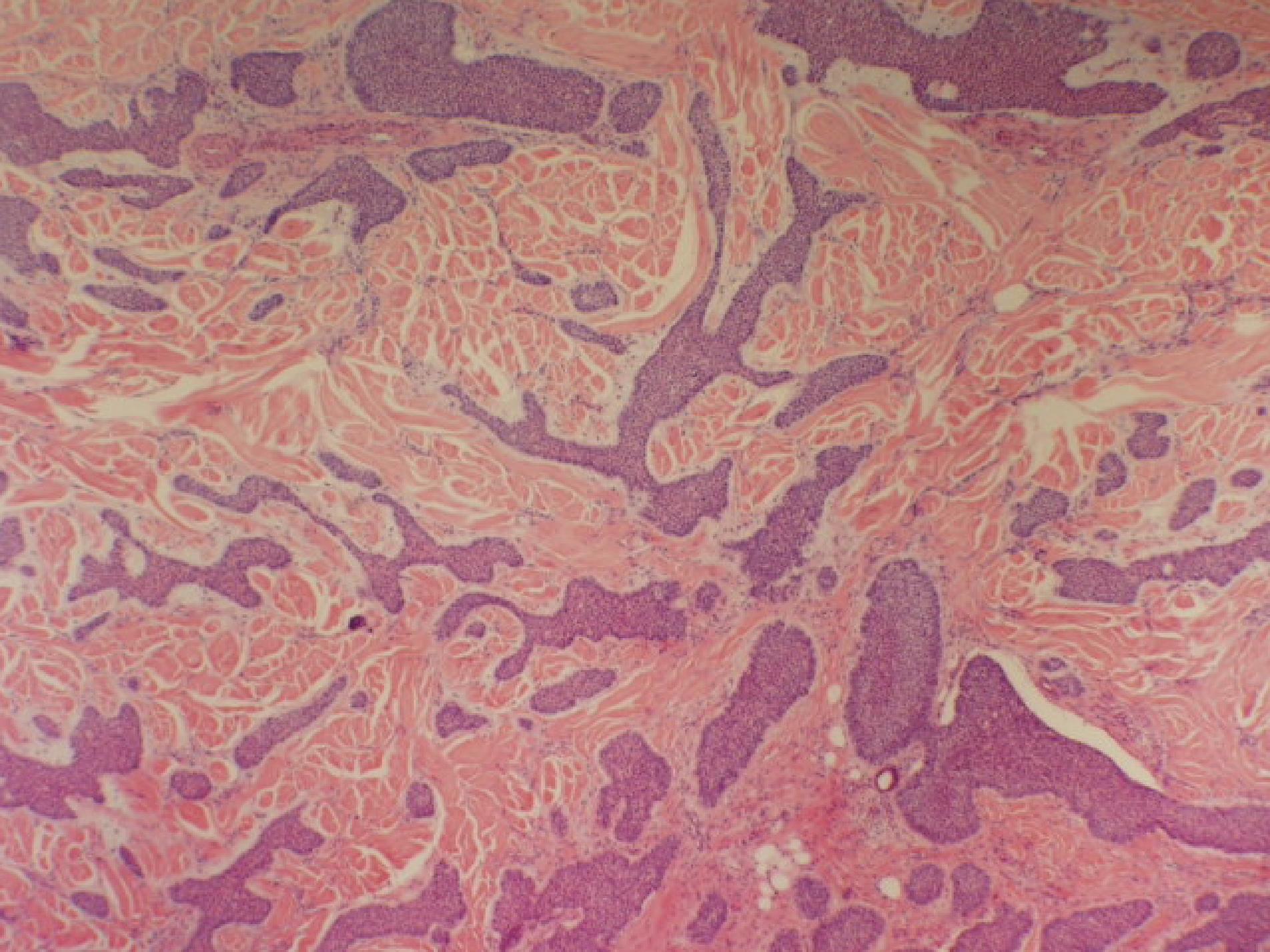


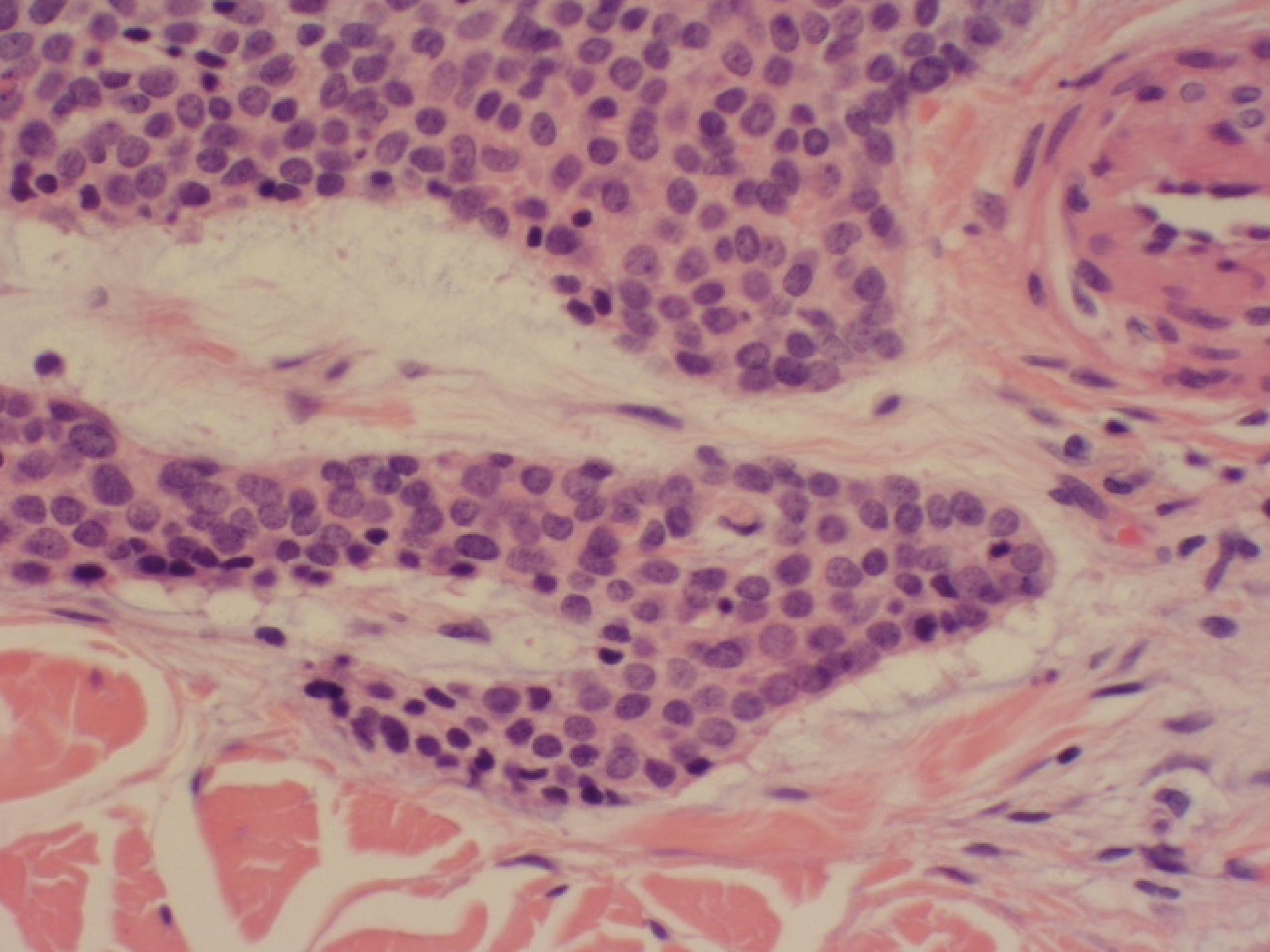




Infiltrative

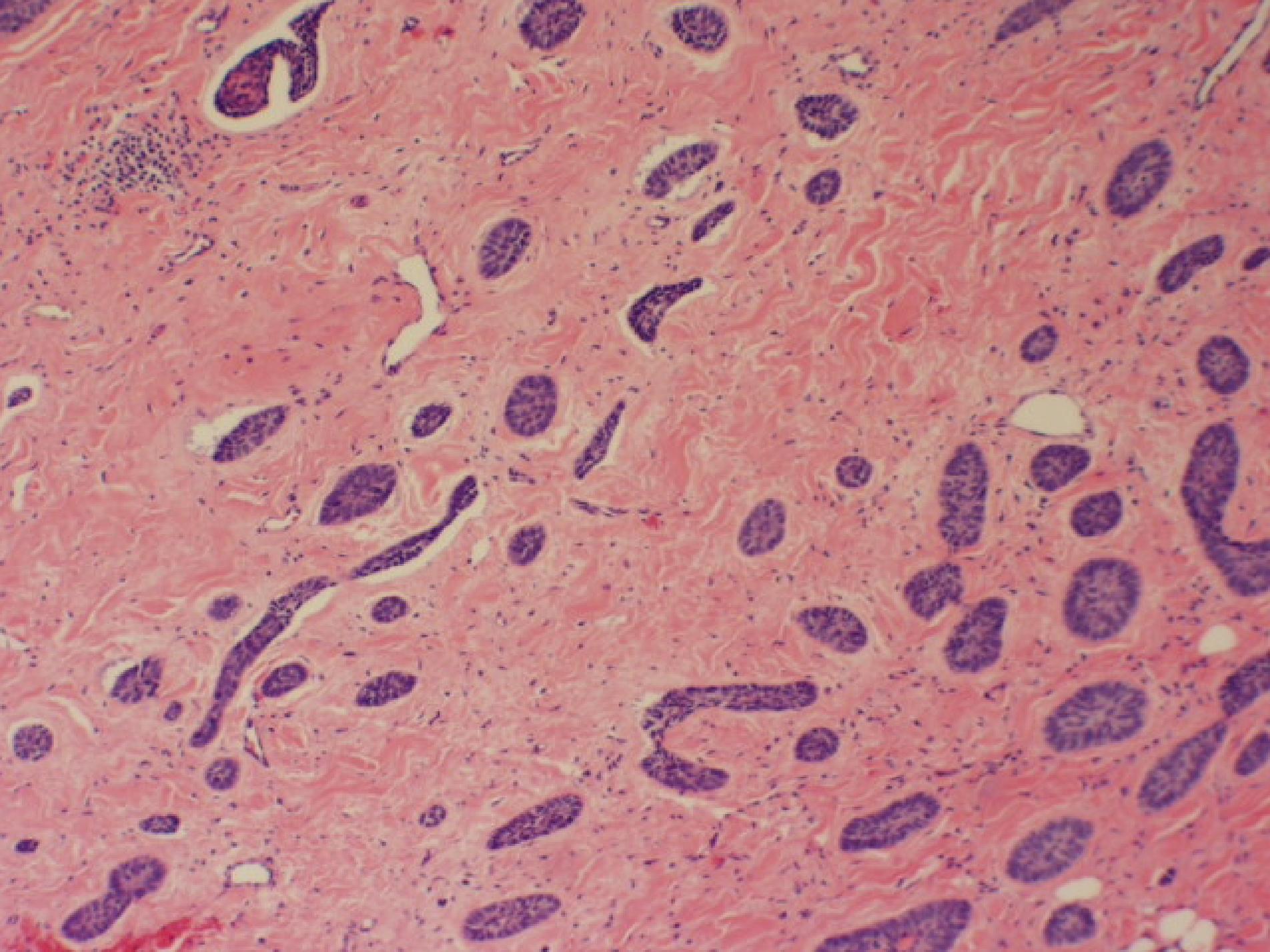
- Angular nests infiltrating throughout dermis with minimal to absent desmoplastic stromal host response

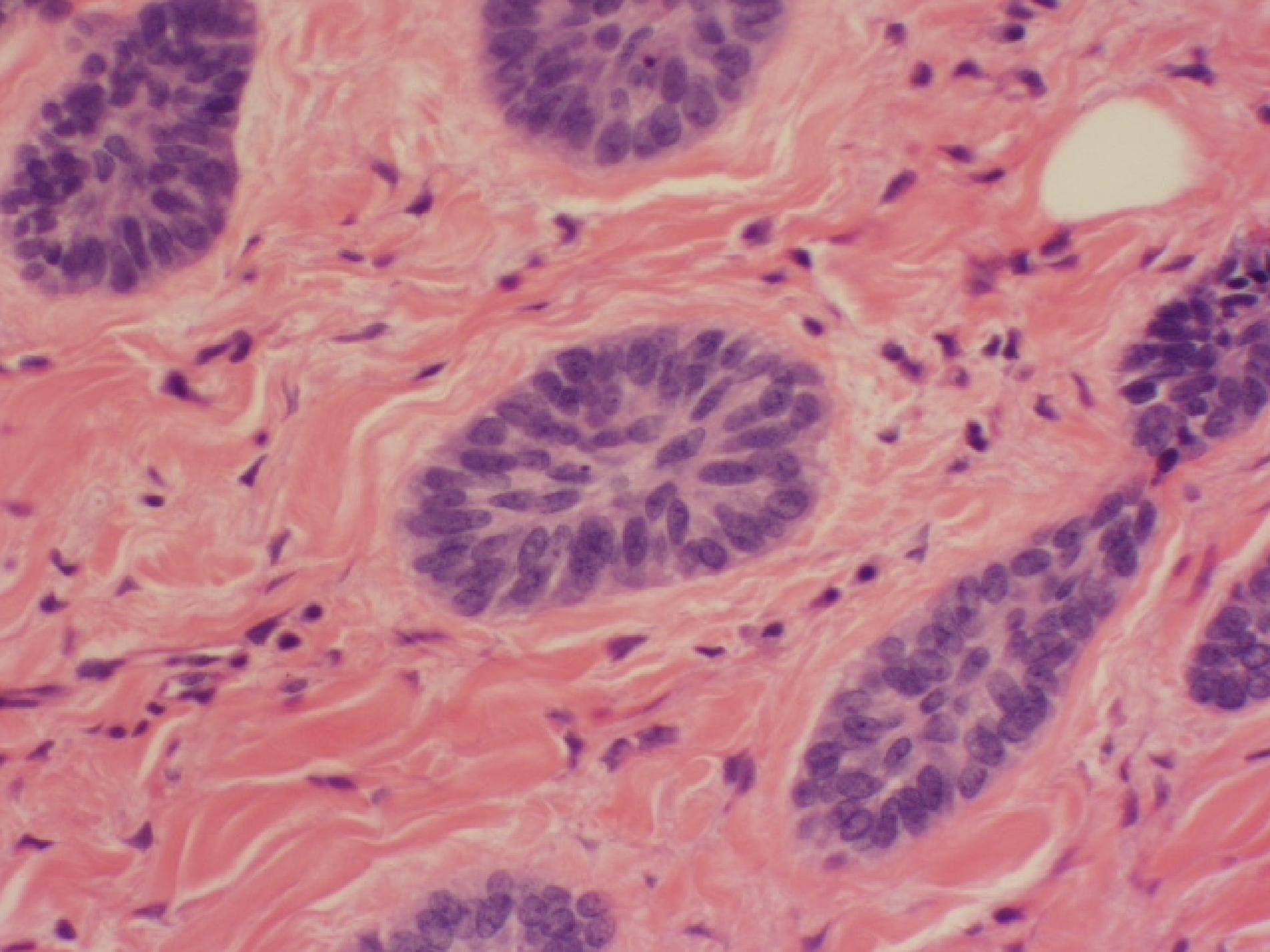




Micronodular

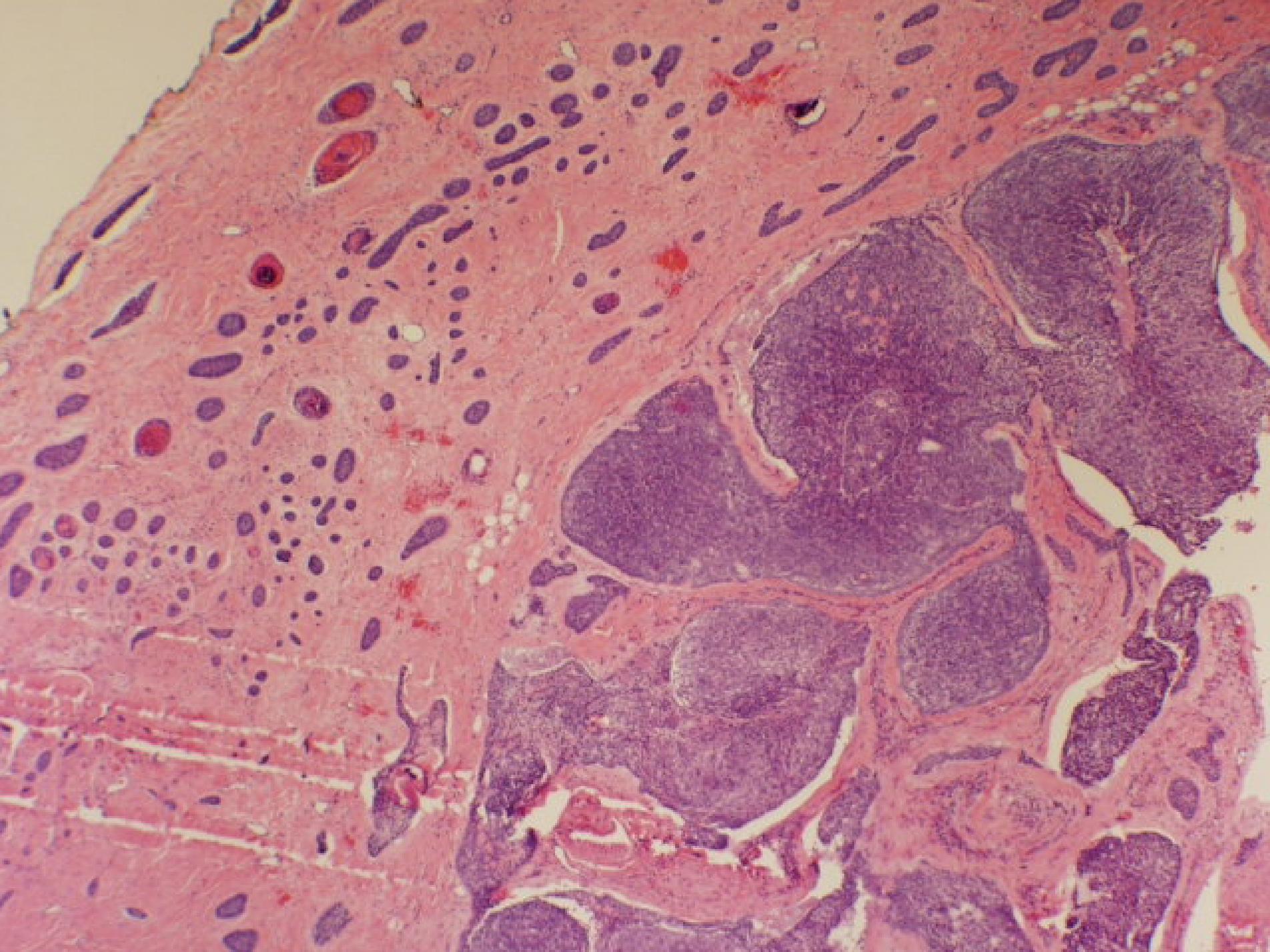
- Small nodules of basaloid cells infiltrating diffusely throughout dermis
- Often minimal desmoplastic host response
- Deceptively bland in appearance





Combined

- Probably most frequent
- Combined with aggressive and non-aggressive types
- Sampling issues



When Do I Get Deeper?

- Clinical suspicion for malignancy
- Focal Epidermal Atypia
- Equivocal Adnexal structures
- Stromal fibrosis
- Empty stromal spaces
- Lichenoid inflammation
- Microcalcifications

Supportive Studies

- 94 cases
 - 50 (53%) demonstrated BCC on deeper sections
 - Am J Surg Pathol 2000;24:1291-1294
- 129 basal cell carcinomas
 - 59% maintained their biopsy diagnosis at first Mohs stage
 - 49% at the second Mohs stage
 - Infiltrative tumors were the most likely to maintain their histologic subtype classification
 - If tumor showed nodular BCC on initial biopsy, 13% were infiltrative or micronodular at first Mohs stage.
 - CONCLUSION: About 40% change in their microscopic appearance at the subclinical extension
 - Dermatol Surg 1998 Aug;24(8):881-4

Role of SMA

- Smooth muscle actin
 - Nodular component of 2/7 (28%) purely N-BCC
 - 11/13 (85%) mixed NI-BCC ($p = 0.001$).
 - Present in the infiltrative component of 13/13 (100%) NI-BCC
 - Actin not found in the stroma of any of the N-BCC, while it was present in 8/13 (62%) of the NI-BCC ($p = 0.0009$).
 - CONCLUSIONS
 - Actin expression is more prominent in the nodular component of mixed NI-BCC when compared with purely N-BCC.
 - This suggests that the nodular components of NI-BCC and N-BCC are different, and that actin expression in the nodular component may be associated with potential invasiveness
 - J Cutan Pathol 2003 Apr;30(4):232-6

Factors Associated with Aggressiveness and/or Metastasis

- Extrinsic Factors
 - Increased microvessel count
 - Increased myofibroblastic markers
 - Lower expression of TIMP-2 mRNA
 - Reduced level of basement membrane antigens
 - Perineural invasion

Factors Associated with Aggressiveness and/or Metastasis

- Intrinsic Factors
 - Cell Cycle Proteins
 - Bcl2 decreased
 - Tumor cell type
 - Surface molecules
 - Decreased $\alpha 5$ and $\beta 4$ integrin
 - Vinculin expressed
 - Metastasis-suppressor gene expression
 - Nm23 (putative metastasis-suppressor gene) diffusely expressed

References

- Arch Dermatol 2003;139:643-648.