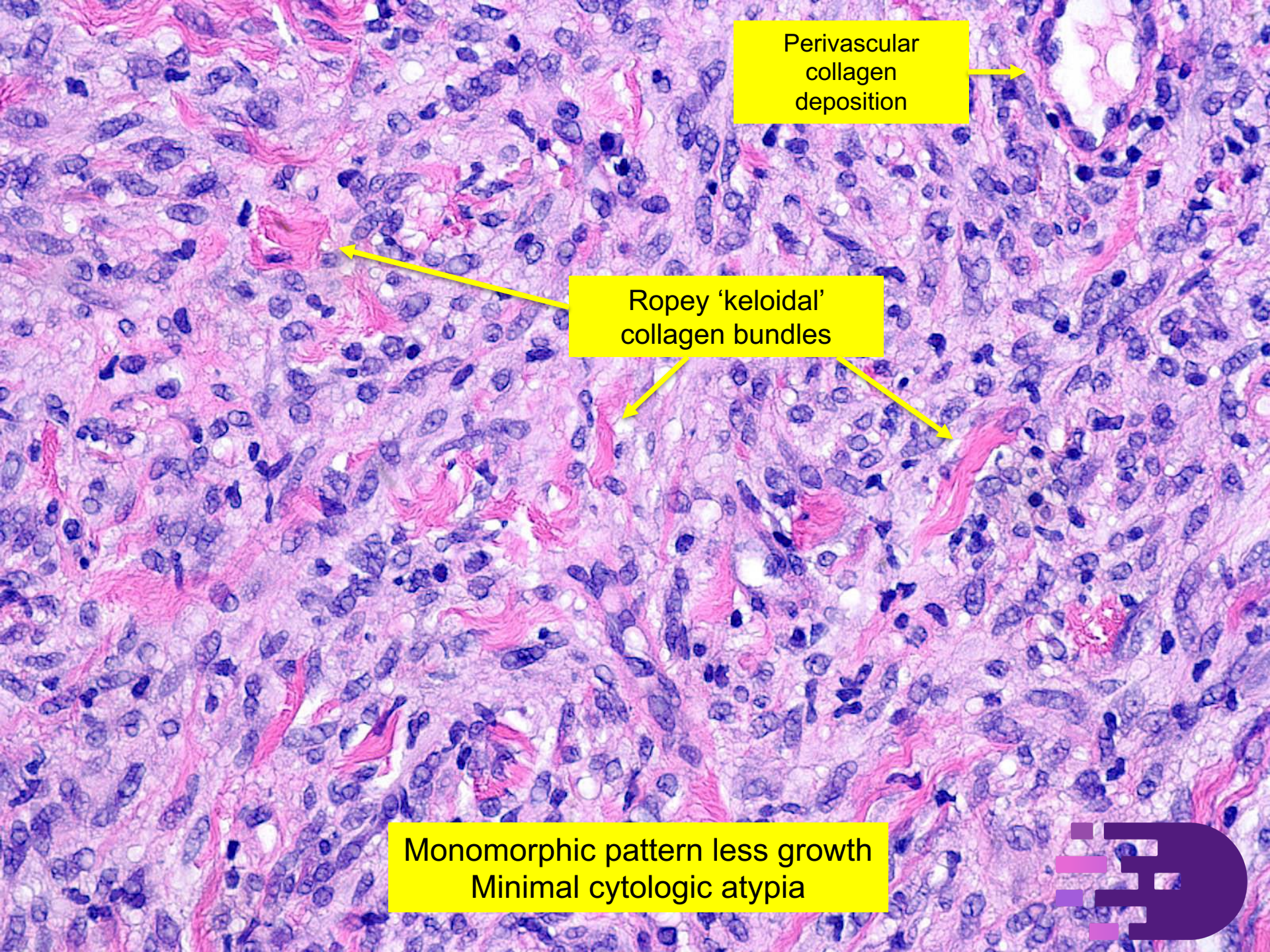


Thick collagen
stromal bands

Monomorphic hypercellular spindle cell tumor



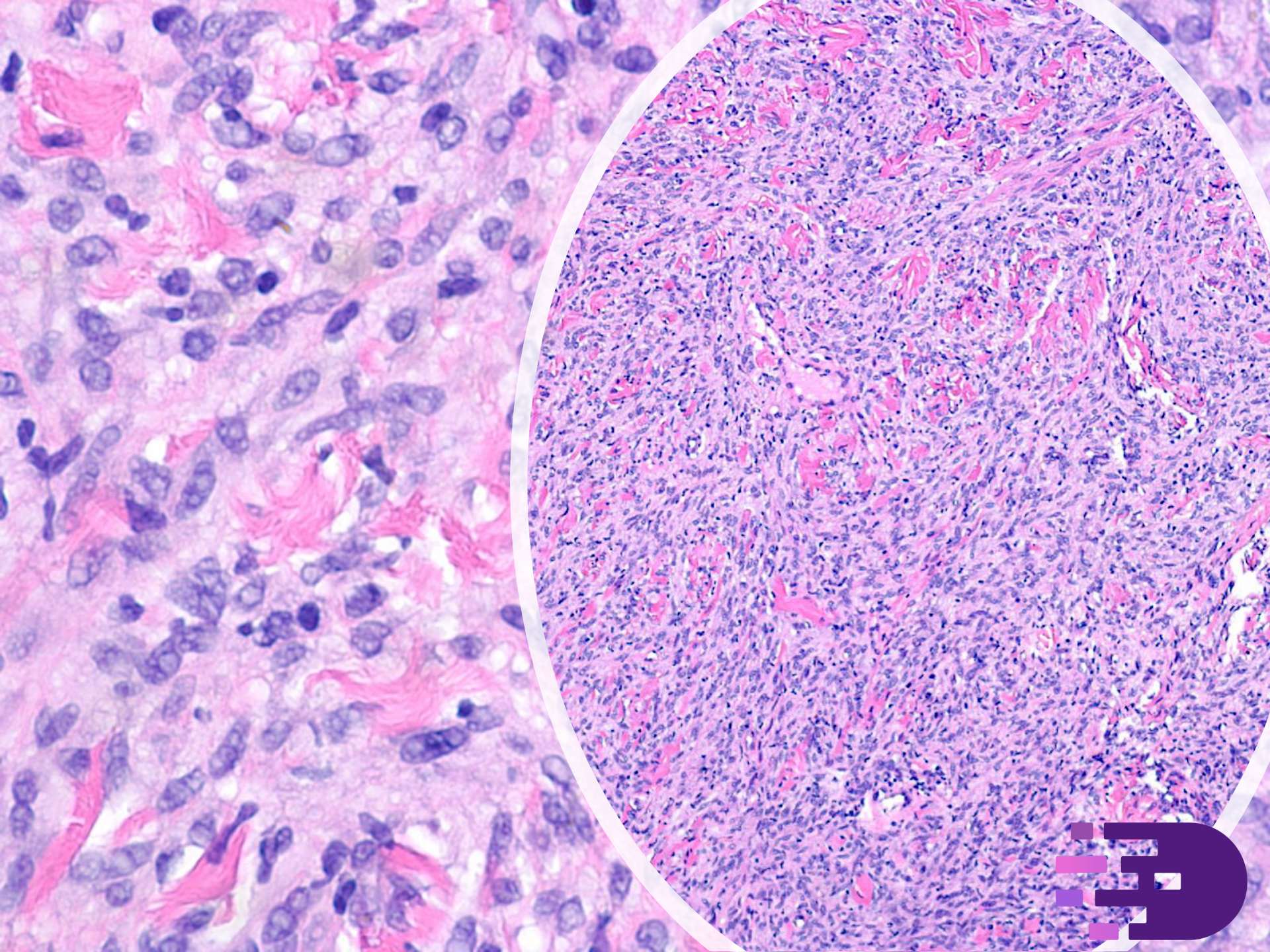


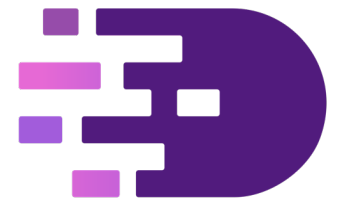
Perivascular collagen deposition

Ropey 'keloidal' collagen bundles

Monomorphic pattern less growth
Minimal cytologic atypia

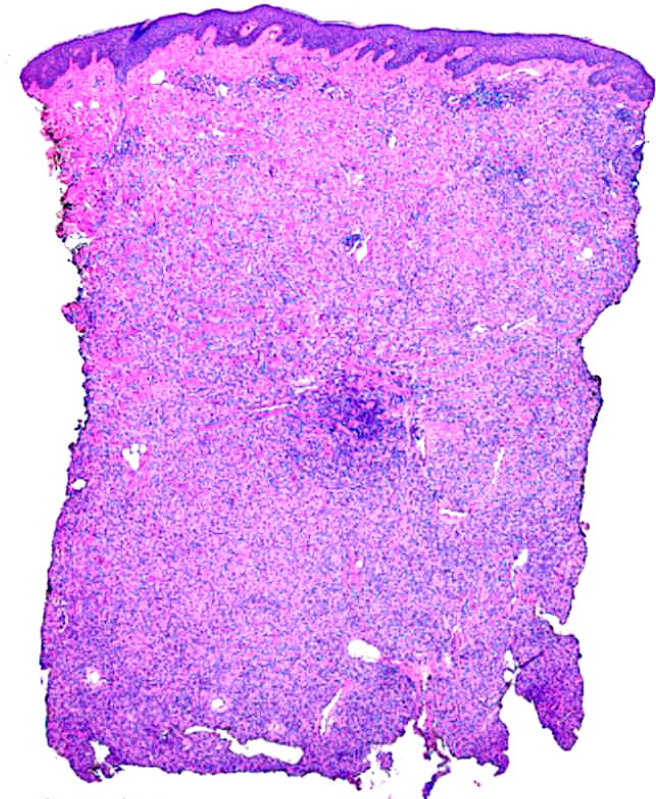




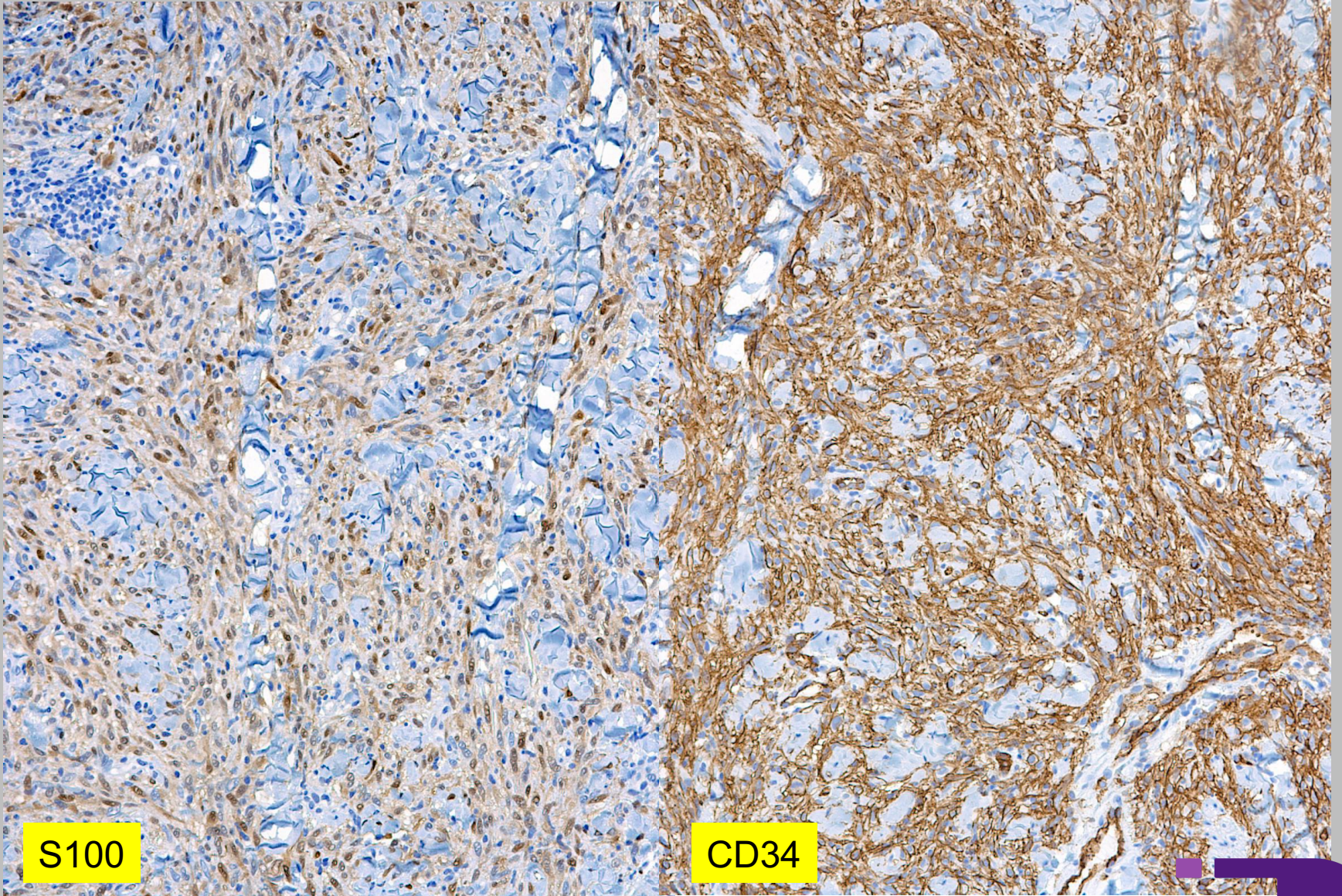


DIGITAL SKIN PATHOLOGY (DiSK)
Learn Histologic Diagnosis Case-By-Case

- **Clinical Information:** 31/F right upper breast, 3 cm annular indurated red-brown nodule with pigmentation adjacent to areola. R/o breast carcinoma vs. nodular melanoma
- **DIAGNOSIS:**
 - SKIN, RIGHT BREAST, PUNCH BIOPSY:
NTRK-REARRANGED SPINDLE CELL NEOPLASM
- **Teaching Points:**
 - Emerging soft tissue neoplasm (WHO 5th edition)
 - May see perivascular collagen deposition (plus MDC below)
 - Immunohistochemistry
 - Positive: CD34, S100, pan-TRK
 - Negative: SOX10, SMA, NSE and NKIC3
 - Perform both S100 and SOX-10
 - May harbor rearrangement of other tyrosine kinase genes: ALK-1, RET, RAF1 and BRAF
- **Minimal Diagnostic Criteria:**
 - Hypercellular pattern less, monomorphic growth
 - Minimal cytologic atypia, low mitotic activity, no necrosis
 - Hyalinized ropey 'keloidal' collagen
 - IHC positivity: CD34, S100, pan-TRK
- **Differential Diagnosis:**
 - Solitary fibrous tumor
 - Lipofibromatosis-like neural tumor (if infiltrating fat)
 - Malignant peripheral nerve sheath tumor
 - Sarcoma
 - Poorly differentiated carcinoma
 - Melanoma
- **Reference:**
 - Agaram NP, et al. Recurrent NTRK1 Gene Fusions Define a Novel Subset of Locally Aggressive Lipofibromatosis-like Neural Tumors. Am J Surg Pathol. 2016 Oct;40(10):1407-16.



Pattern less hypercellular growth fills the reticular dermis



S100

CD34

