

# Interesting case conference

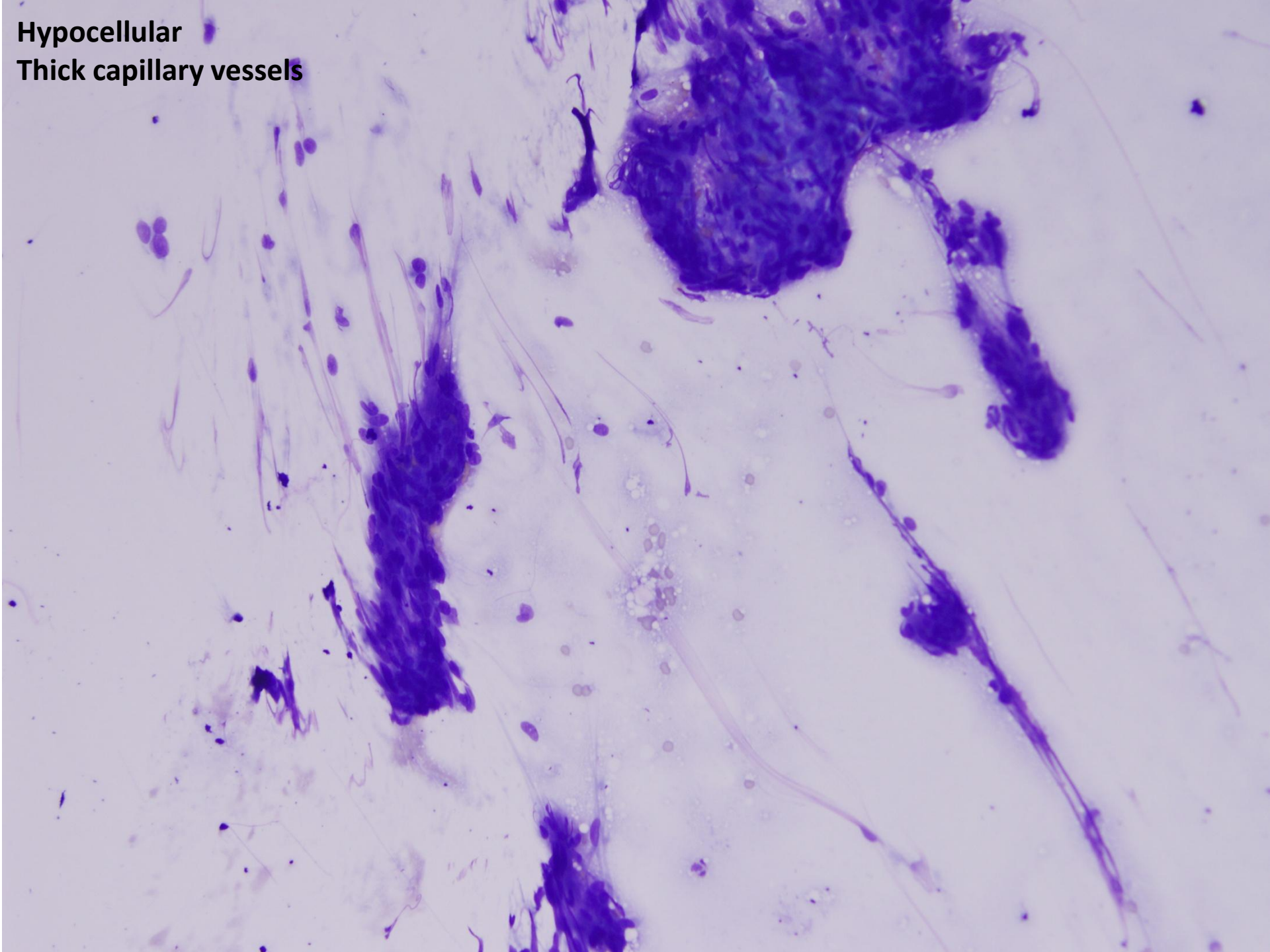
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## 31-year-old female

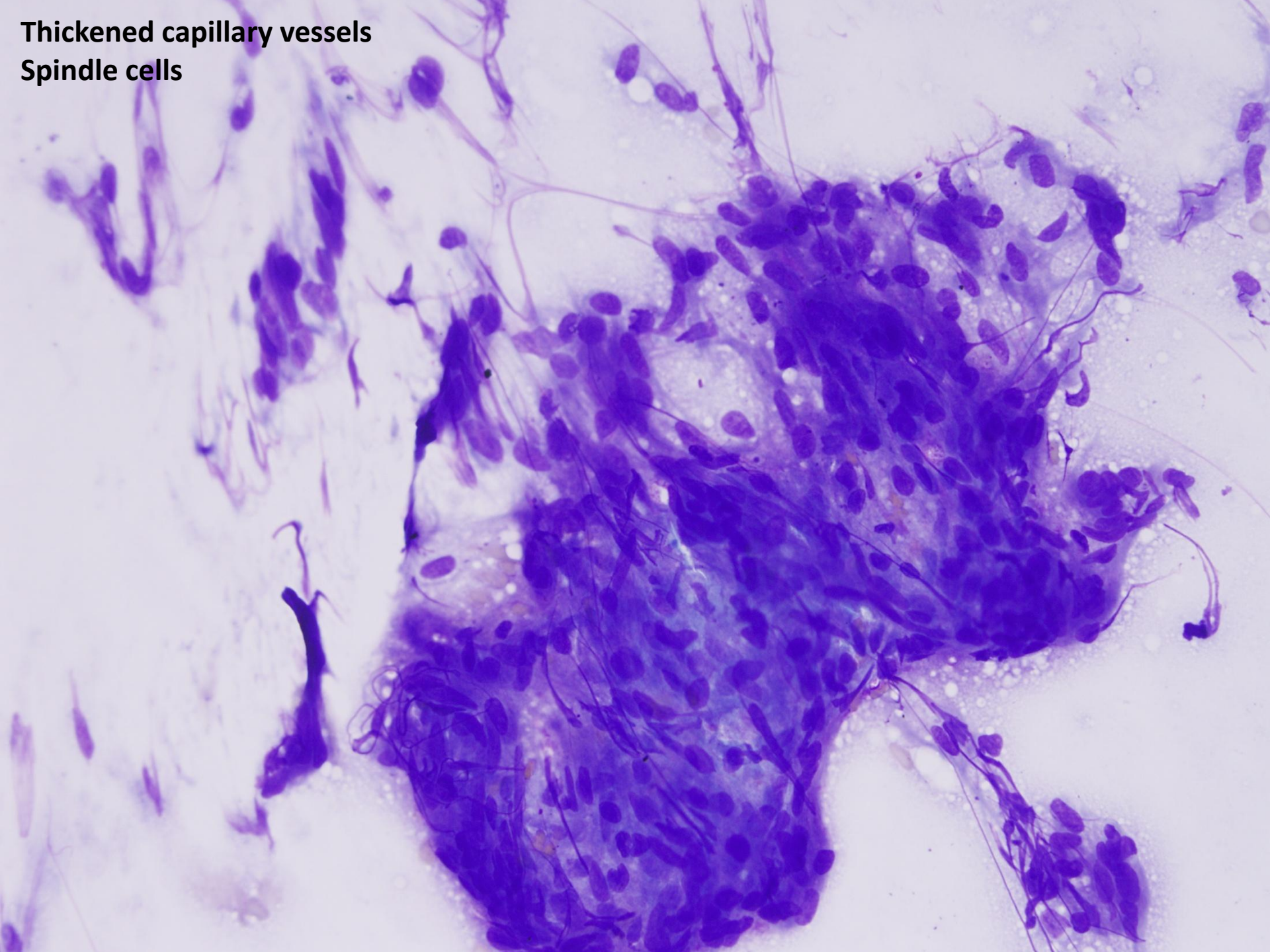
- presented to UofM for second opinion regarding a left renal mass
- originally diagnosed in 2010 incidentally with CT scan
- she was asymptomatic until December of 2012, when she began experiencing flank pain. She denies hematuria

**Image-guided needle core biopsy with touch prep cytology performed of the renal mass**

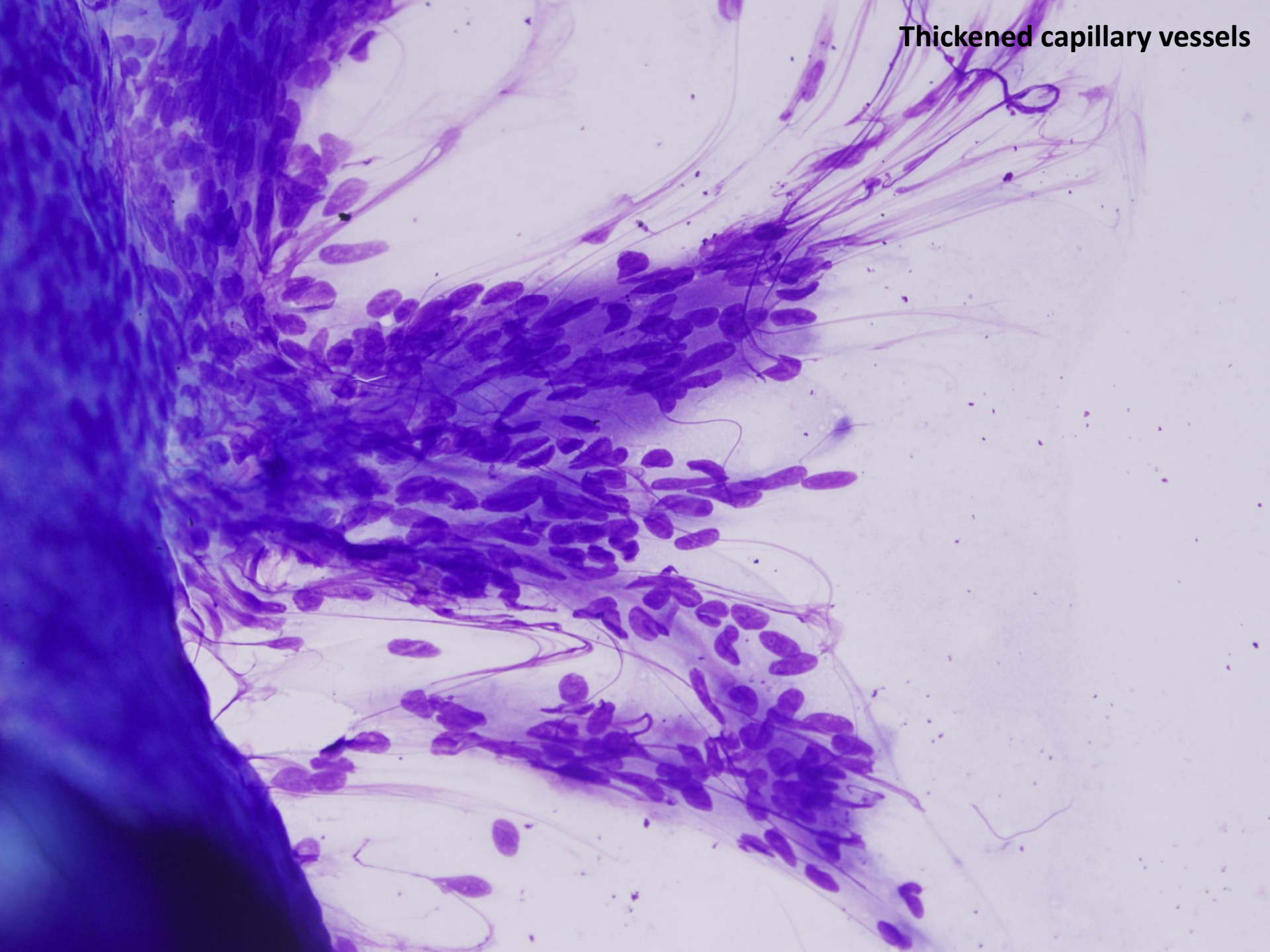
**Hypocellular  
Thick capillary vessels**



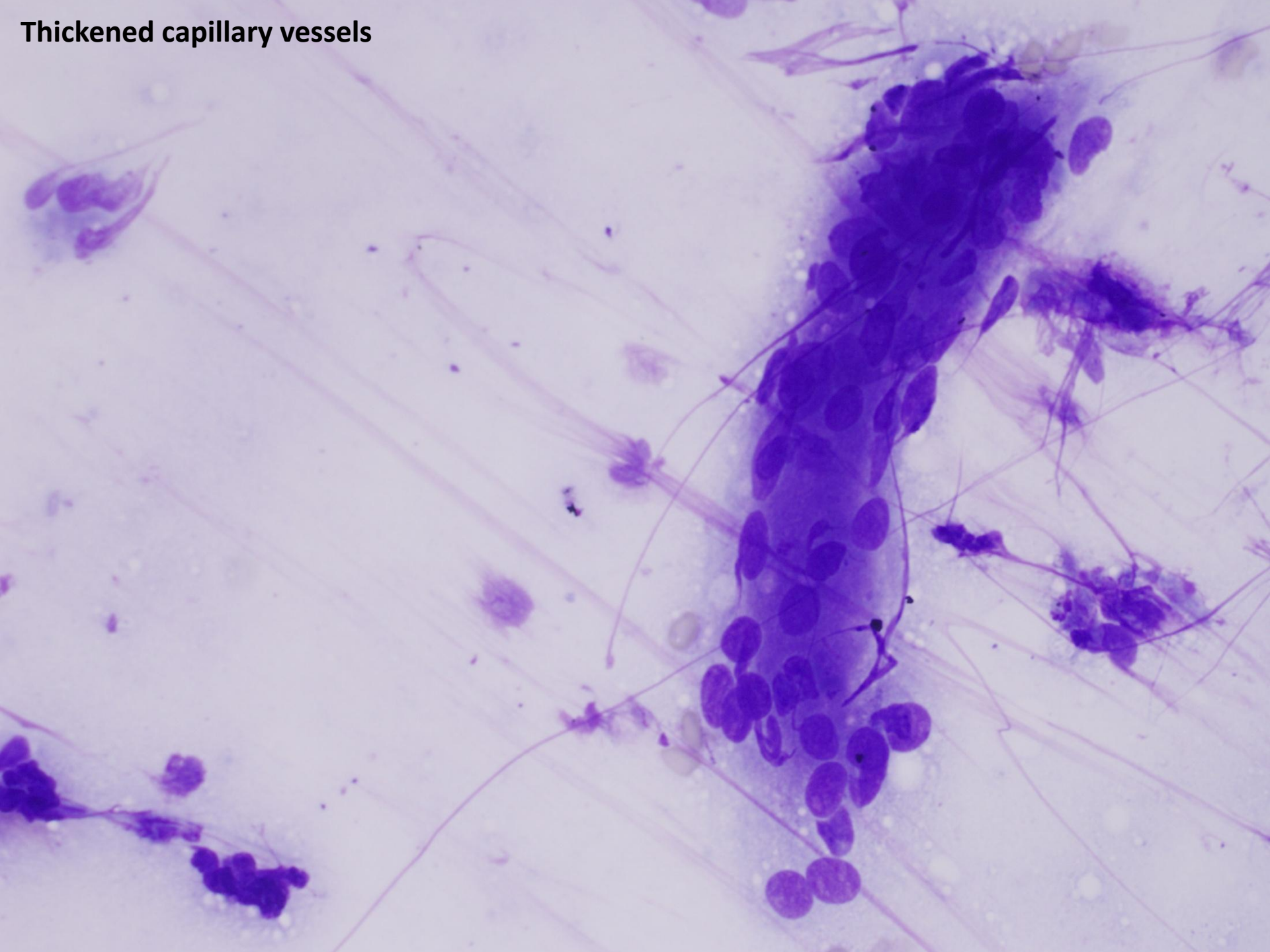
**Thickened capillary vessels**  
**Spindle cells**



**Thickened capillary vessels**

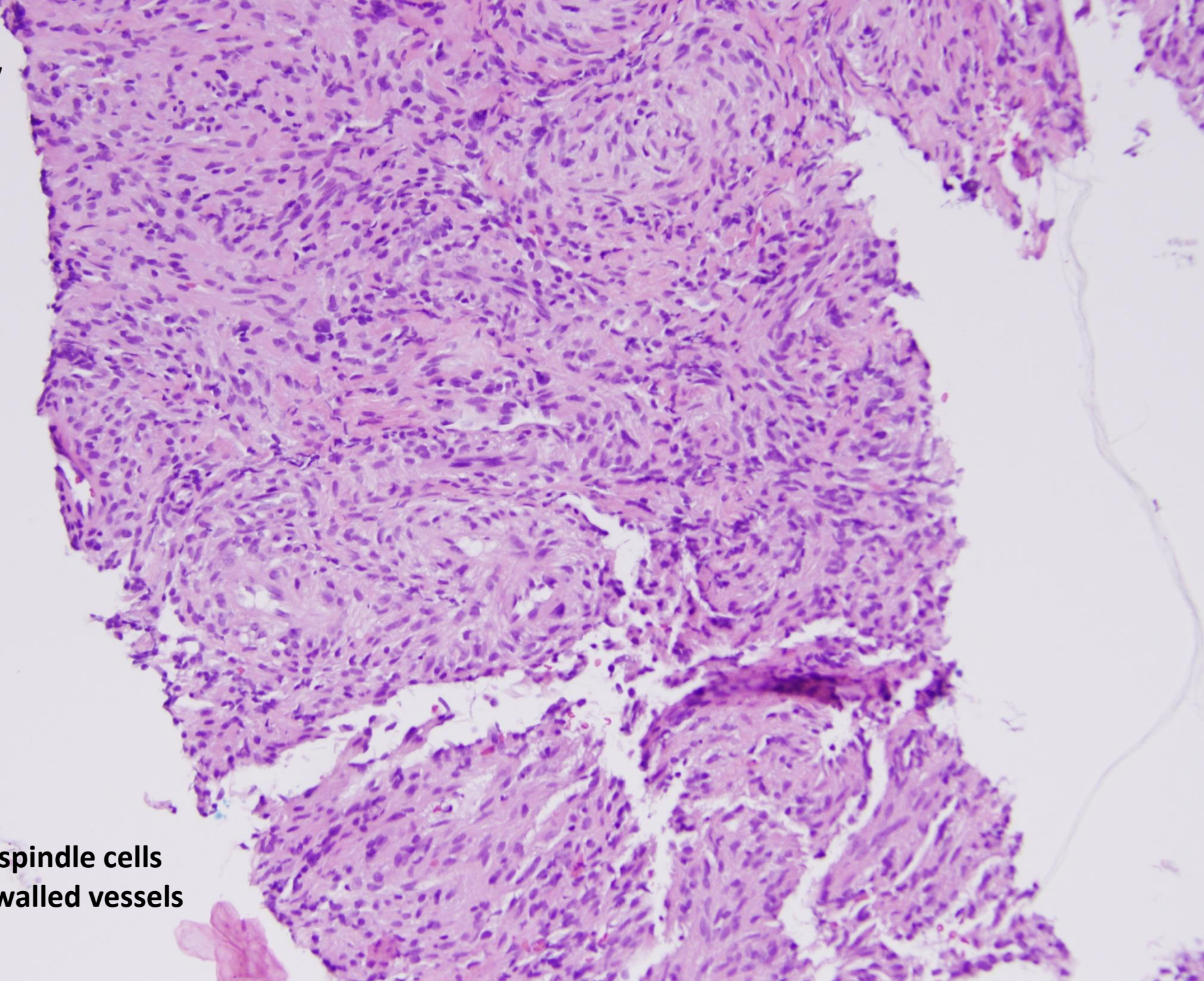


**Thickened capillary vessels**

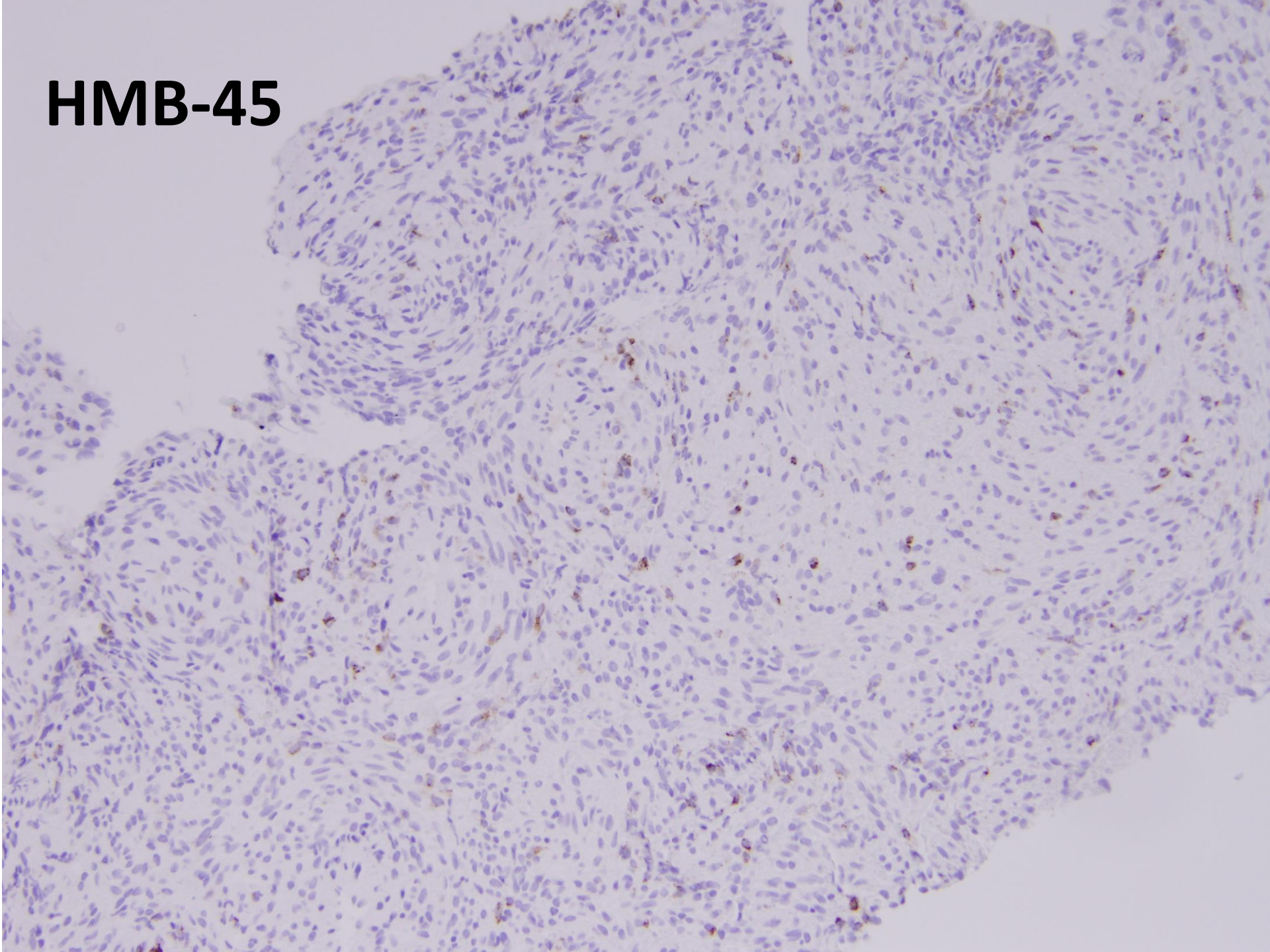


**Core  
Biopsy**

**Bland spindle cells  
Thick walled vessels**



**HMB-45**





# Other immunostaining results:

## **POS**

-calponin

-**Melan-A**

-SMA

## **NEG**

-PanCK

-TTF-1

-CD34

-S-100

## Final Diagnosis:

- Negative for malignancy.
- Consistent with angioliipoma.

# Angiomyolipoma

- benign tumor belonging to the PEComa family of tumors
- occur in young adults with tuberous sclerosis (multiple and bilateral lesions) and in patients without tuberous sclerosis sporadically (young and middle aged women)
- most are reliably diagnosed by imaging due to fat content; fat-poor tumors tend more to be sampled via FNA and/or core biopsy.

# Cytology of Angiomyolipoma

- paucicellular specimens
- classically have mature fat, blood vessels, and smooth muscle cells but the fat and thick vessels may not be seen on FNA
- mostly have smooth muscle cells on FNA smears with none to moderate atypia (large spindled cells with a “stringy” appearance rather than vacuolated/granular like RCC)
- DDX: sarcomas and sarcomatoid RCC; stains for HMB-45 and/or melanA can be very helpful with this differential, especially in cases of AML with marked atypia
- Atypia is permissible in angiomyolipomas and do not necessarily portend aggressive behavior.
- epithelioid angiomyolipomas can have metastatic potential=> cells with abundant cytoplasm and prominent nucleoli, necrosis and mitoses can be seen (DDX: clear cell RCC)