CASE OF THE MONTH
MAY 2021

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CASE

- 81 year Hypertensive and diabetic old male presented with on and off nasal bleeding for 2-3 months

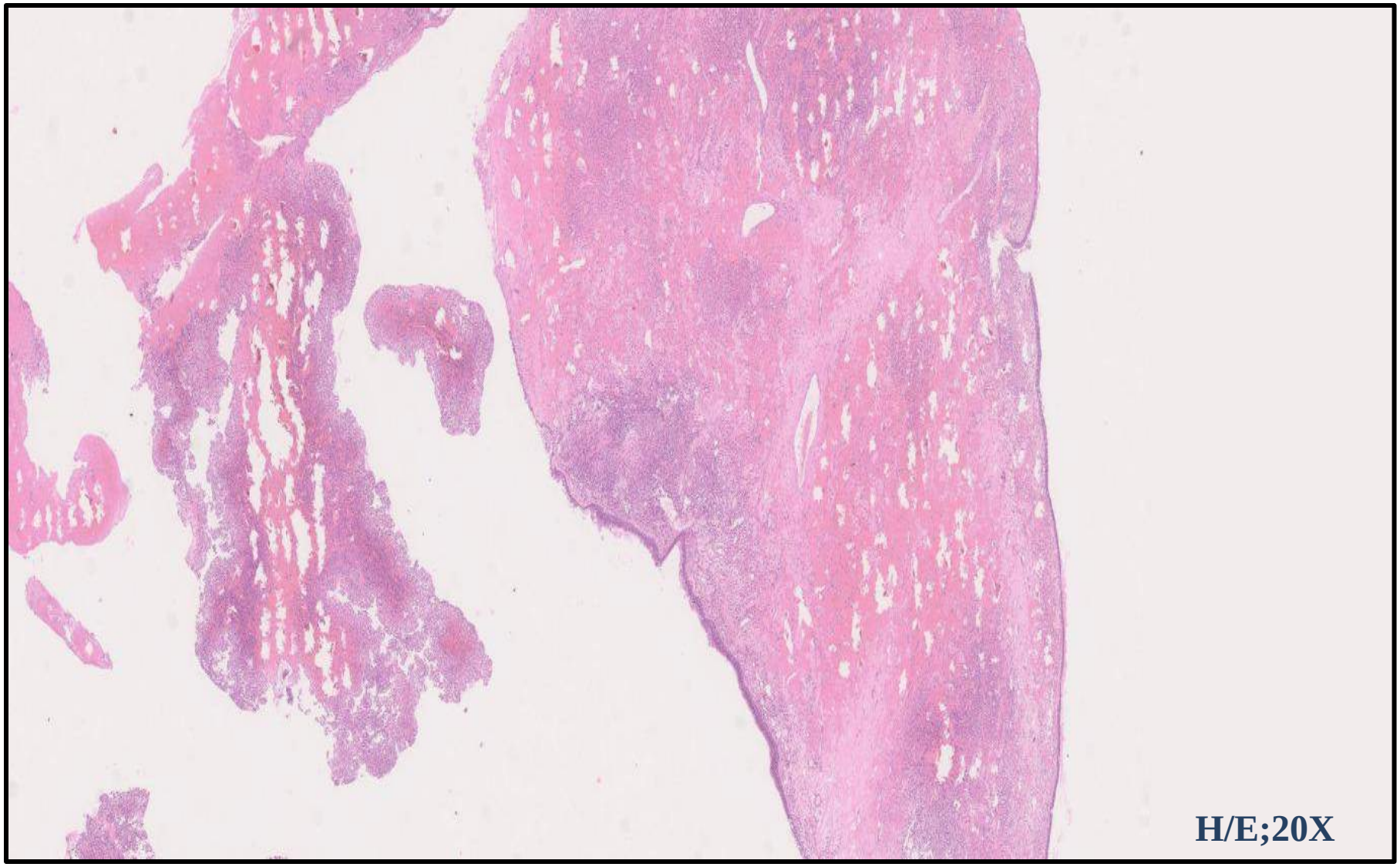
- Significant past history:
  History of CVA with aphasia in october 2020

- On examination: Right nasal mass +

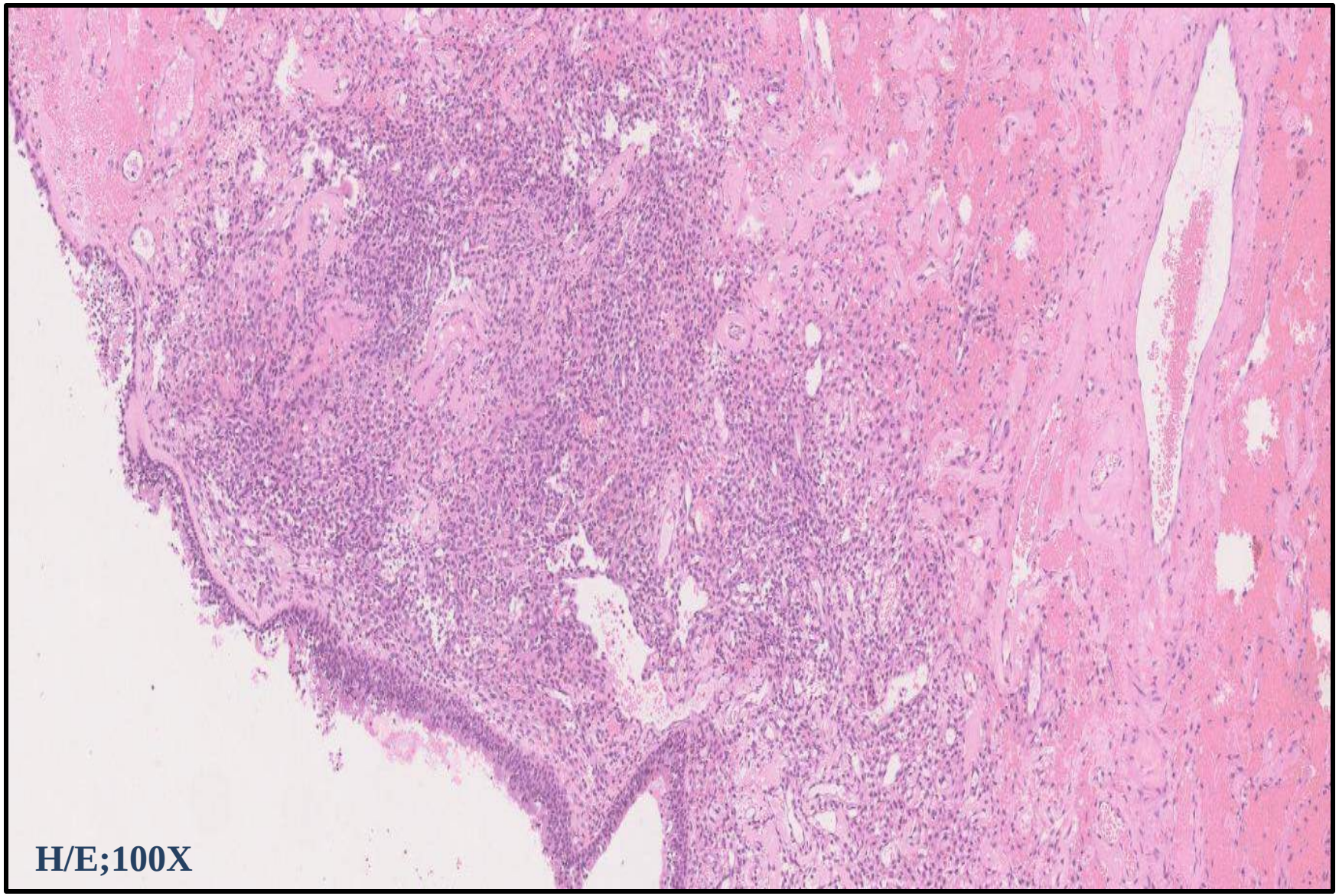
- Endoscopic findings:
  Friable bleeding mass in right nasal cavity

- Biopsy was performed

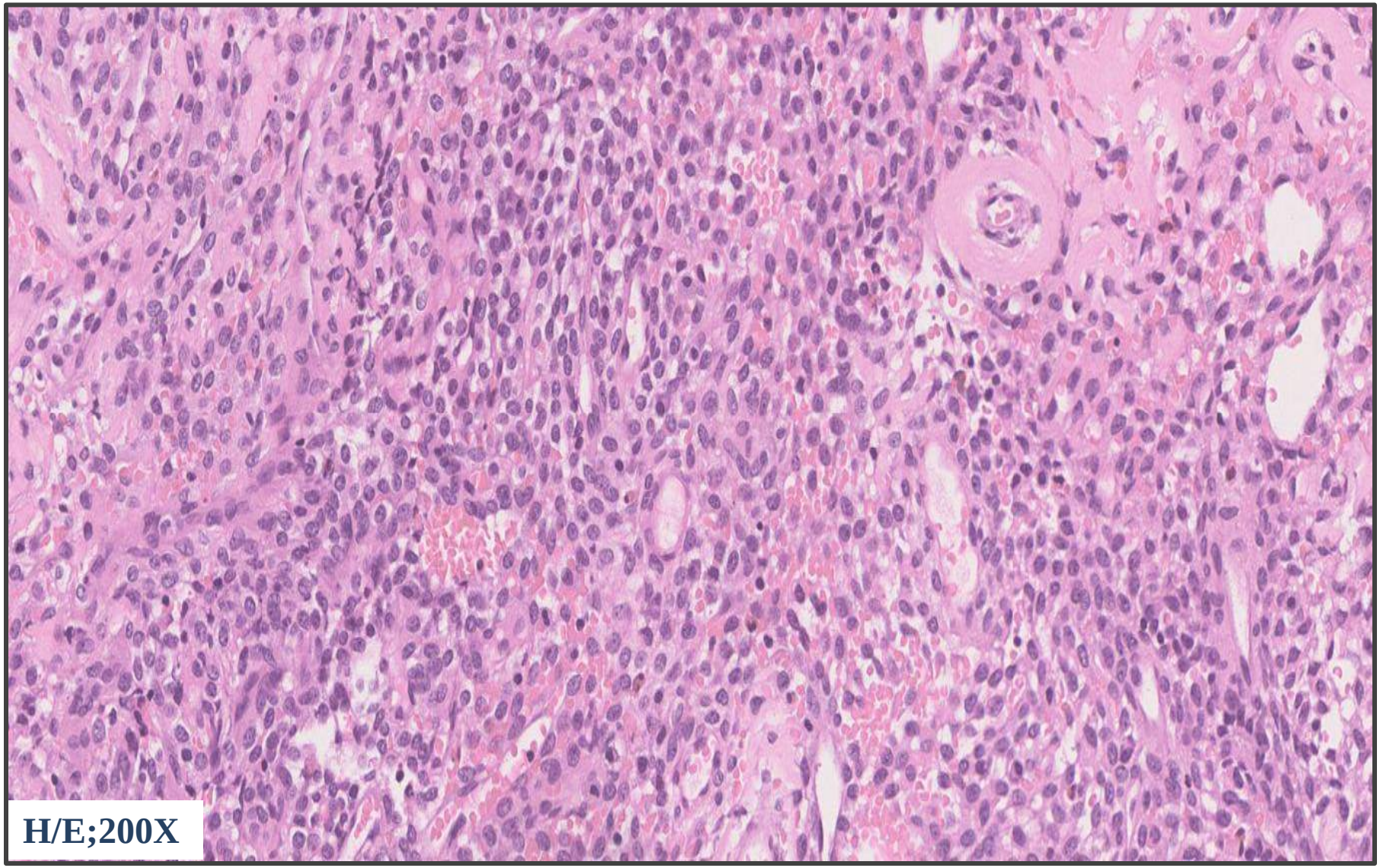
Microscopic examination



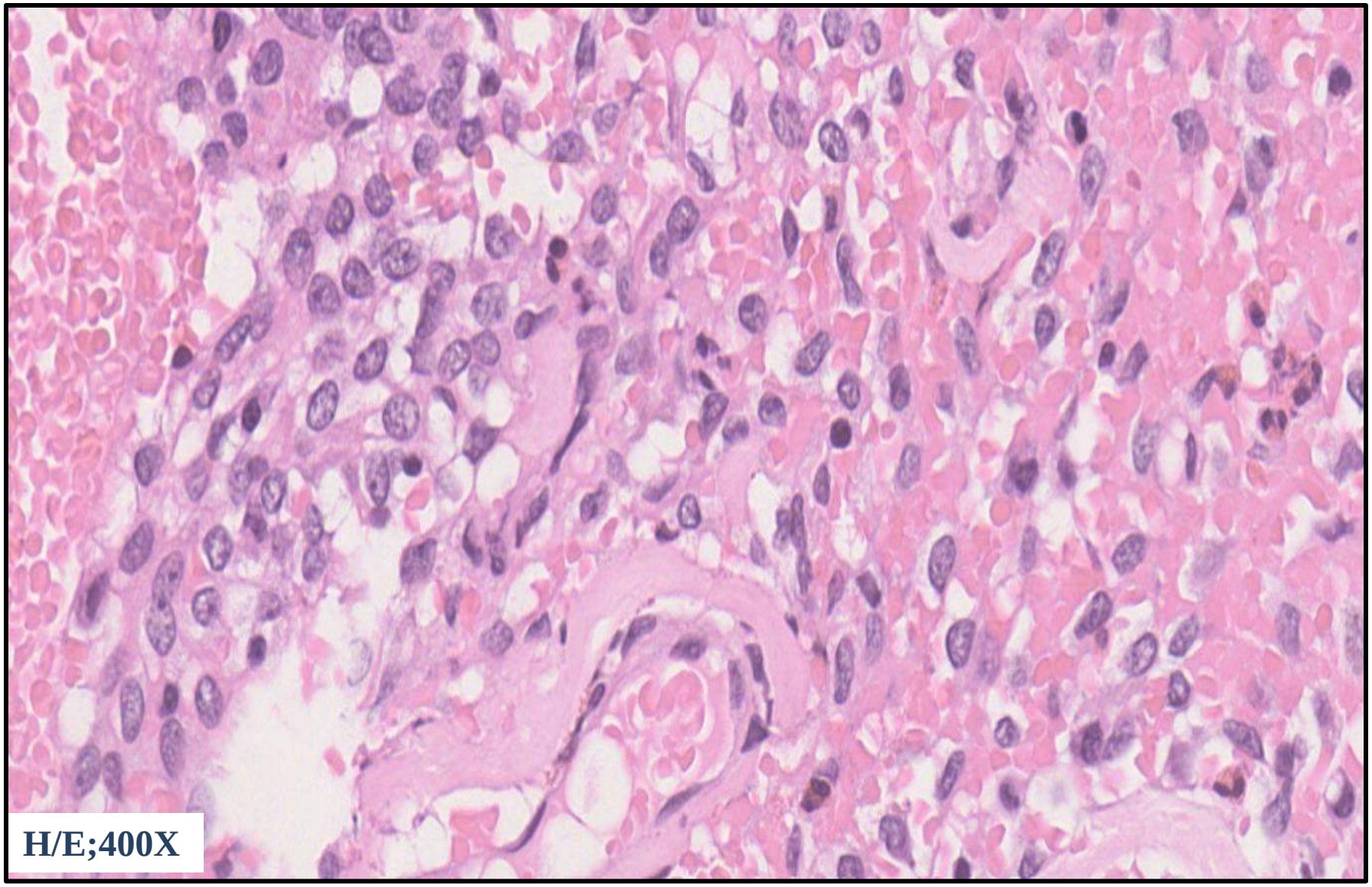
Respiratory epithelium covered polypoidal tissue fragments



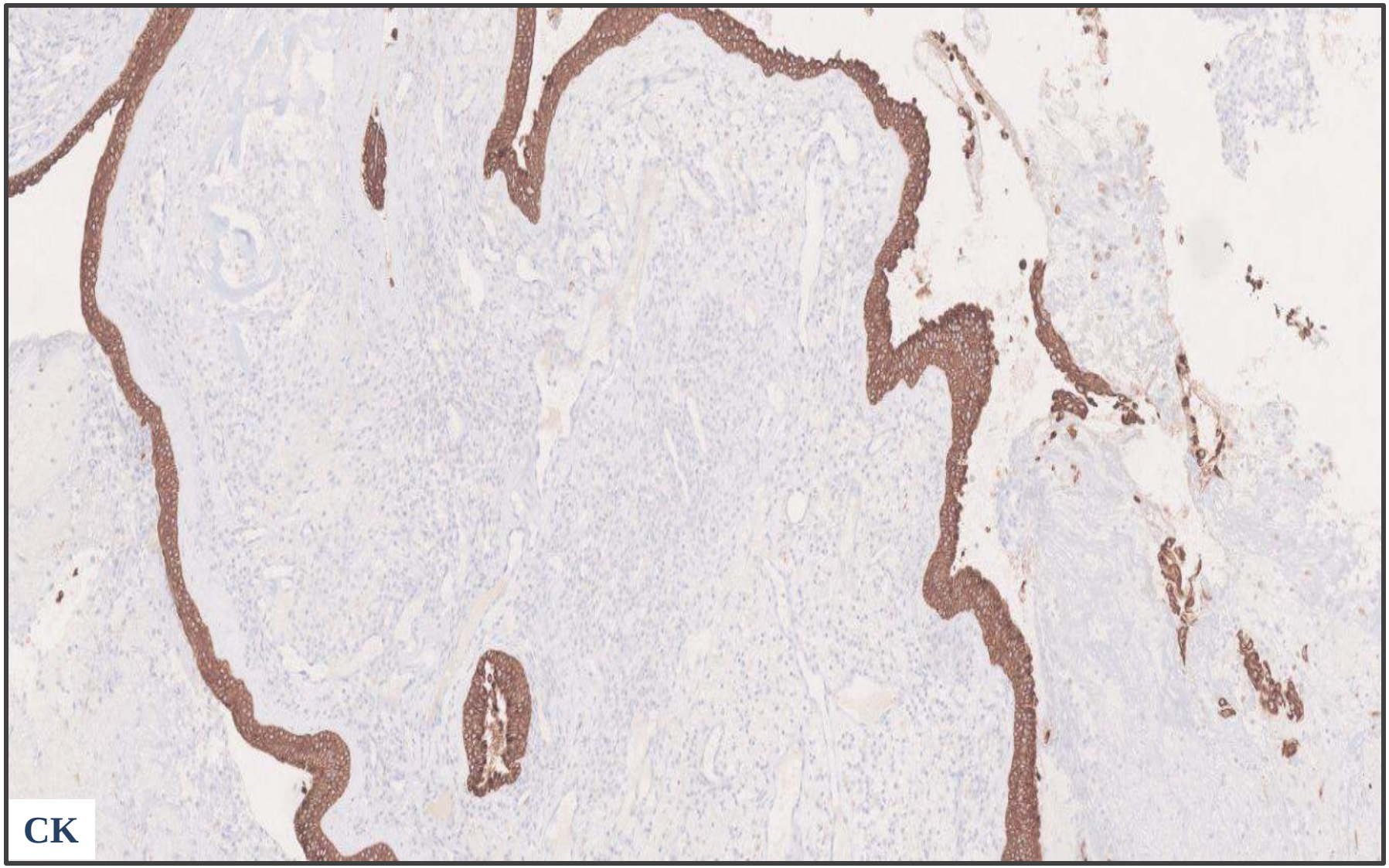
Submucosa showing a proliferation of neoplastic cells

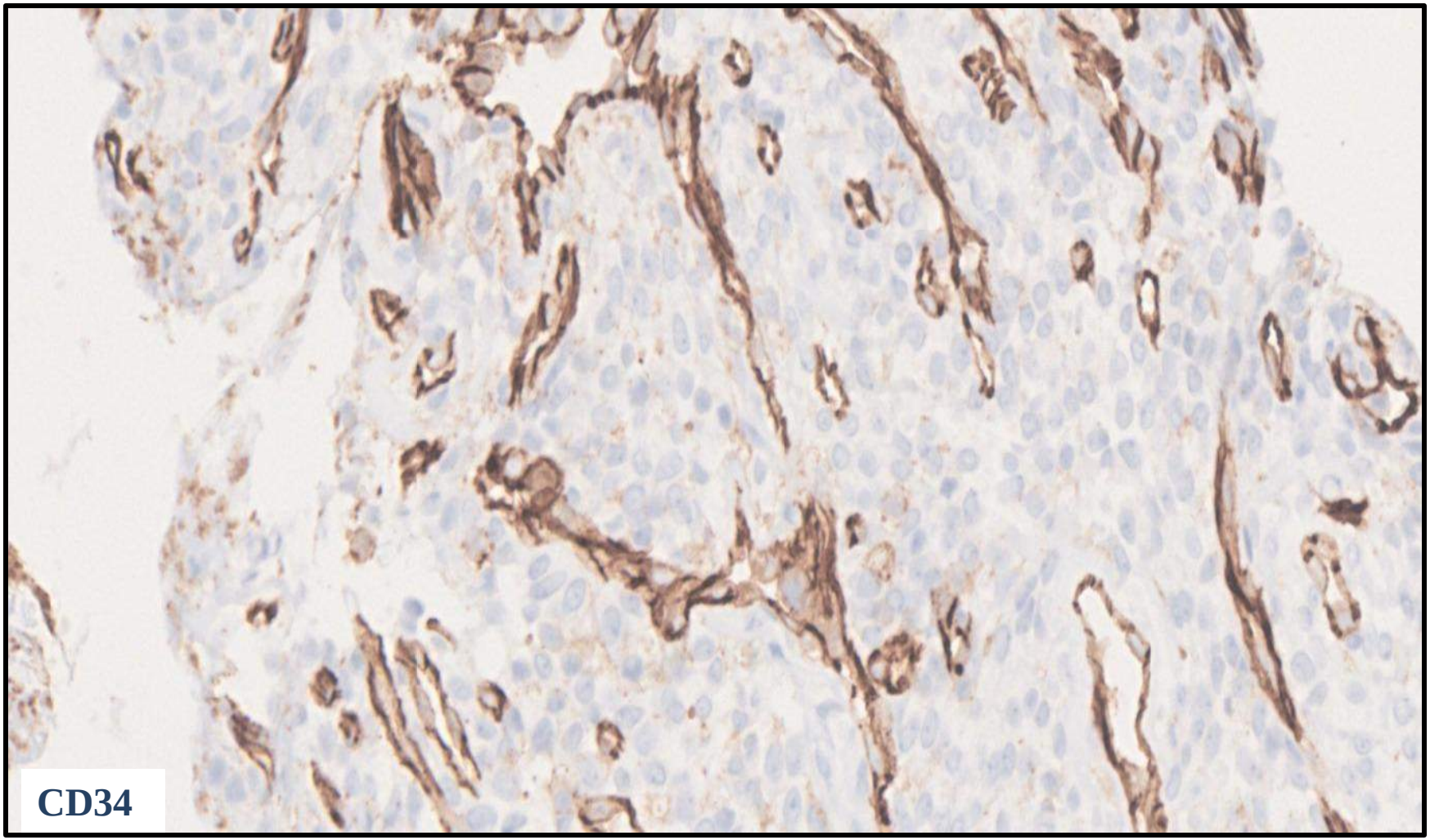


Neoplastic cells having plump to spindle cells with uniform nuclei, fine chromatin, and moderate cytoplasm.
Abundant intervening thin & thick vessels seen with perivascular hyalinization.



Neoplastic cells with eosinophils and striking perivascular hyalinization.


CK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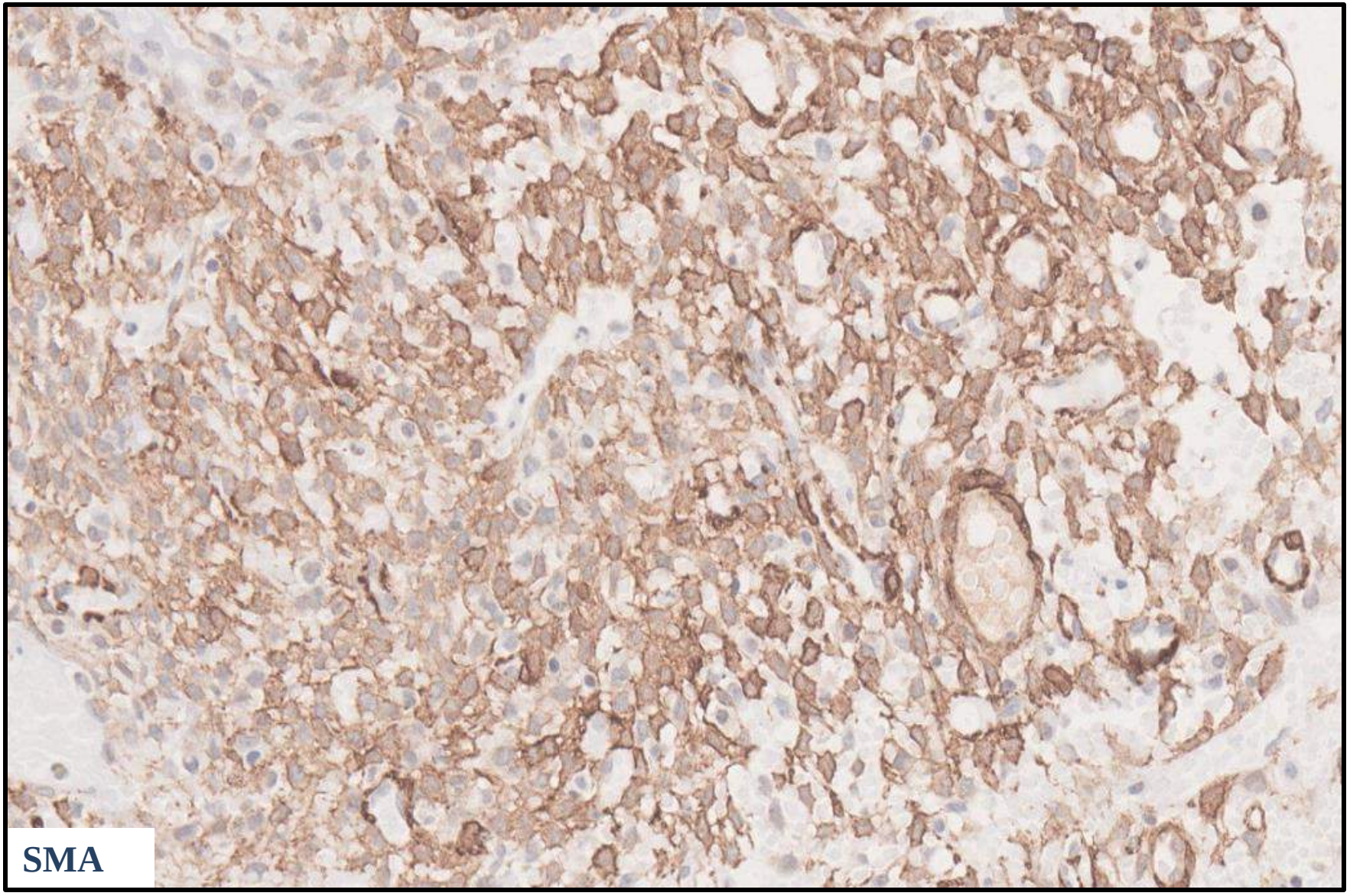
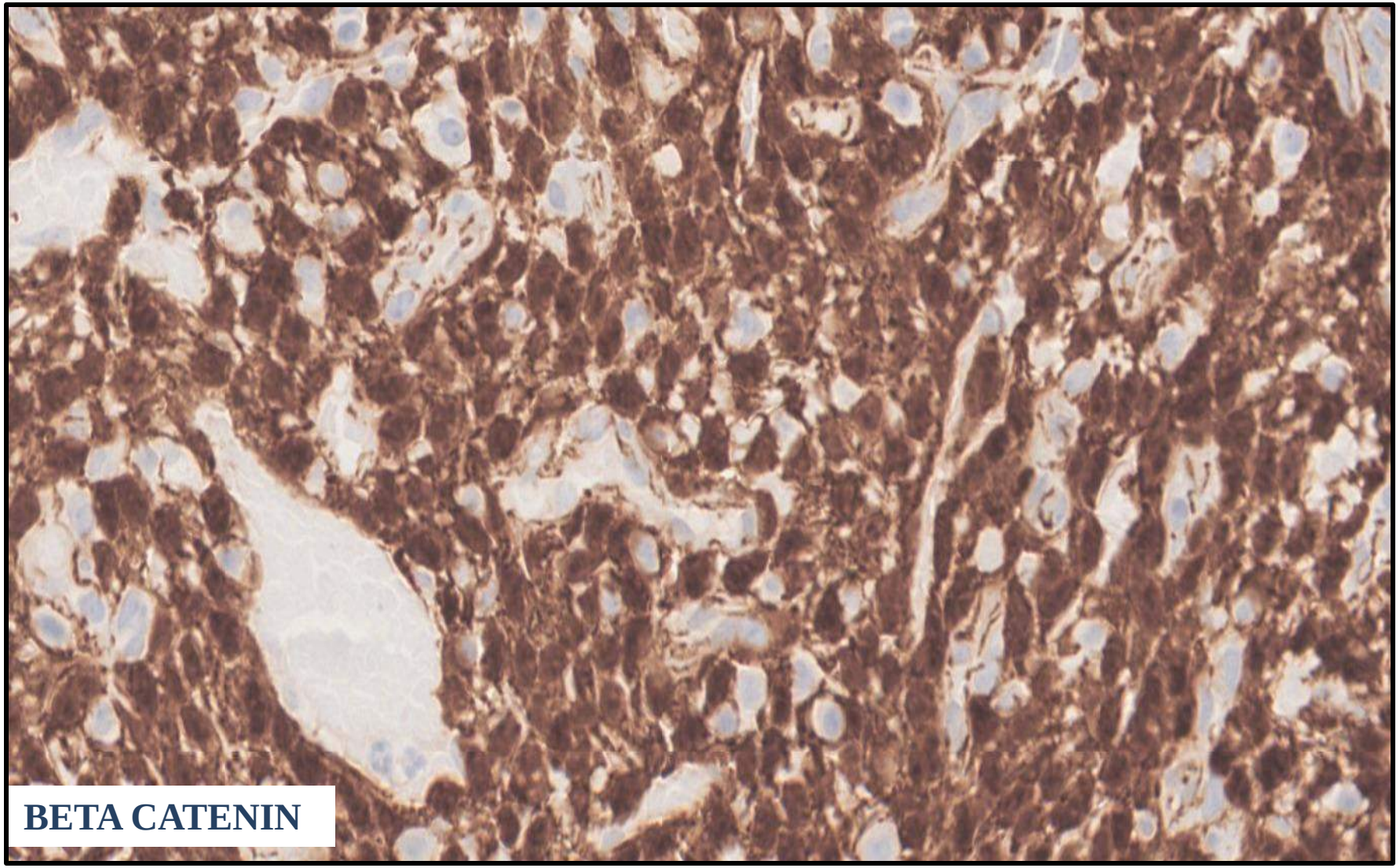
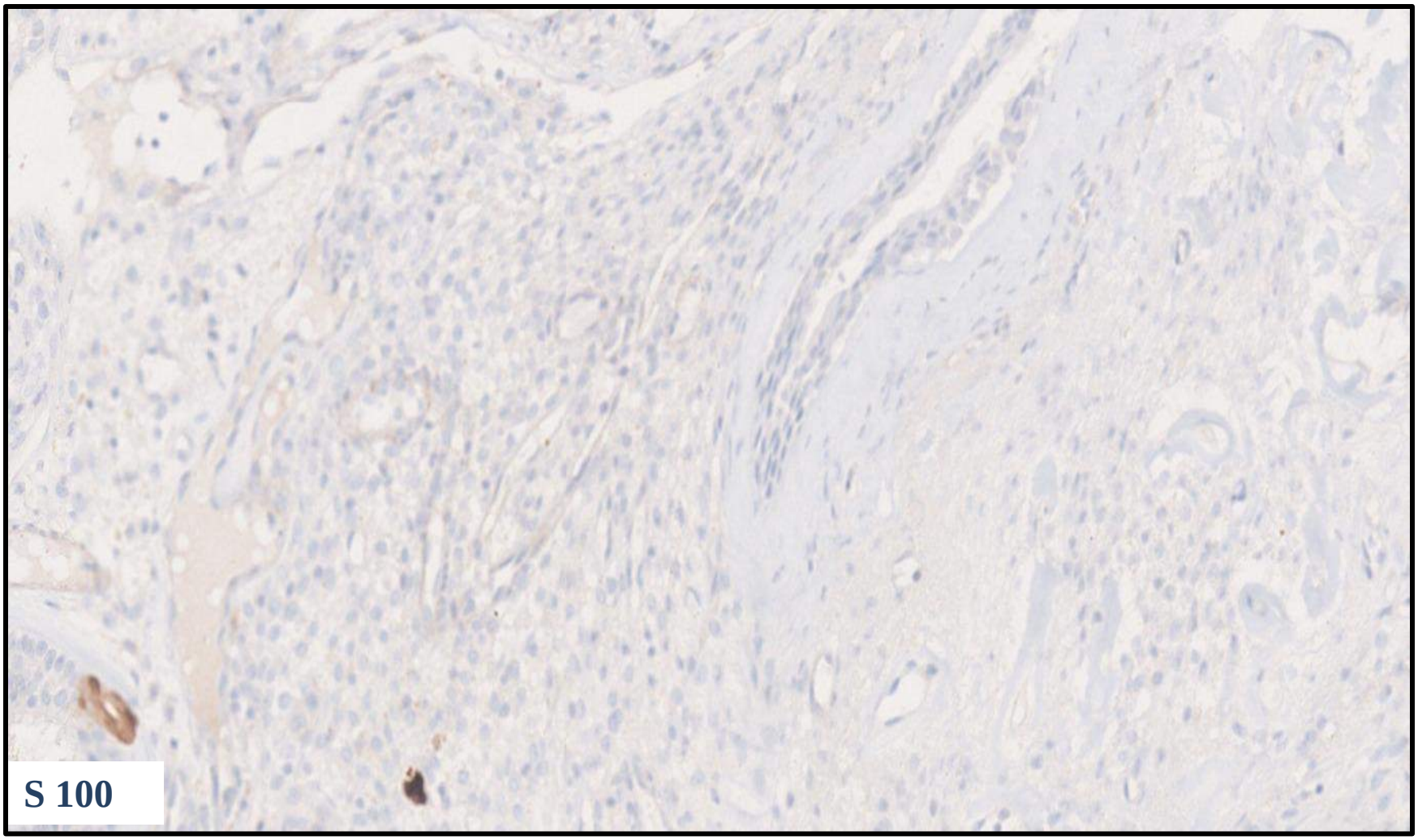

SMA


BETA CATENIN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DIAGNOSIS

SINONASAL GLOMANGIOPERICYTOMA

Discussion

- Perivascular myoid neoplasm
- <0.5% of all sinonasal tract neoplasms
- Tumor is nearly always unilateral affecting the nasal cavity
- Most patients present with nasal bleeding and obstruction

Discussion

Gross:

- Tumors are generally polypoidal , red-pink and fleshy to friable
- Unencapsulated
- Resembles nasal allergic polyp

Discussion

- Intact epithelium with patternless diffuse architecture effacing normal tissue
- Tumor cells are arranged in short fascicles , whorled or storiform architecture with striking **prominent thick acellular peritheliomatous hyalinization**
- Tumor cells are uniform with indistinct cell borders imparting synctial appearance
- Mast cells, eosinophils, extravasated RBCs frequent
- Rarely EMH or mature adipose tissue can be seen
- Concurrent collision tumor with SFT

GENERALLY:

- Uniform tumor cells
- Nuclear pleomorphism: absent
- Sparse mitosis(<3/10hpf)

MALIGNANT:

- Profound pleomorphism
- Necrosis
- Increased mitosis (>4/10 hpf)

Immunohistochemistry:

POSITIVE

SMA
Nuclear beta catenin
Cyclin D1
FactorXIIIa
Vimentin

NEGATIVE

CD34
CD31
CD117
STAT6
BCL2
CK
EMA
DESMIN
S100

CTNNB1 mutation

- Upregulation of cyclin D1

oncogenic

Treatment: excision with follow up

Indolent course with good prognosis

Aggressive behaviour :
>5cm , bone invasion , marked nuclear pleomorphism, >4mitosis/10hpf and necrosis

Thank you