The British Association of
Gynaecological Pathologists

17th Annual Meeting

- Challenges in Endometrial Biopsy Pathology Interpretation: Non-Epithelial Entities.
- Joe Rabban MD MPH
- Pathology Department, University of California San Francisco, USA
- June 11, 2021

The British Association of Gynaecological Pathologists

Speaker disclosures

I have the following to disclose:

My spouse receives salary and stock options from Merck & Co.

I am not discussing any commercial products

Outline of Talk

- **Biphasic lesions**
- **Spindled lesions**
- **Epithelioid lesions**
- **Endometrial stromal lesions**
- **Chronic endometritis**

“Biphasic” endometrial lesions

- Benign

Endometrial polyp & variants

- Malignant / malignant potential

Adenosarcoma
Atypical polypoid adenomyoma
Carcinosarcoma

Endometrial Polyp

- Classic

Disorganized endometrial glands within altered stroma

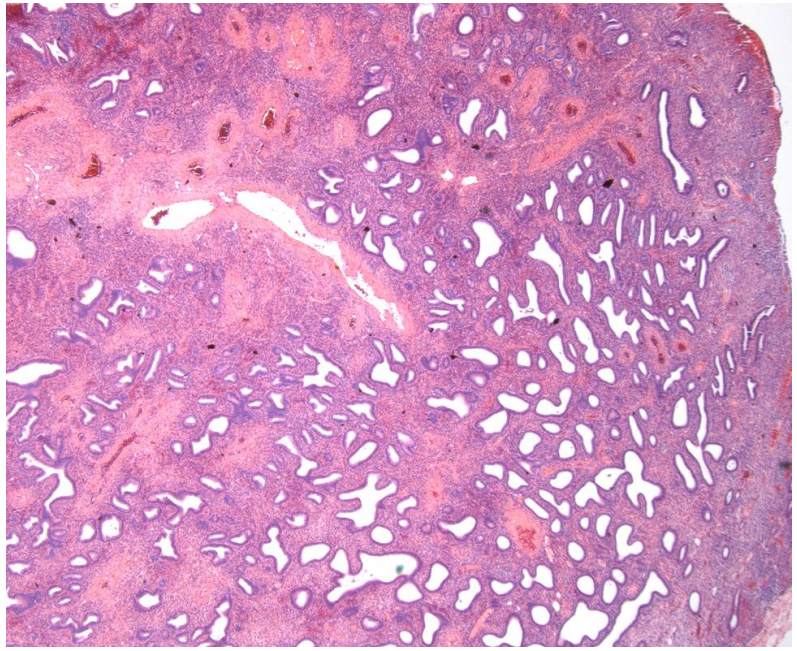
Glands

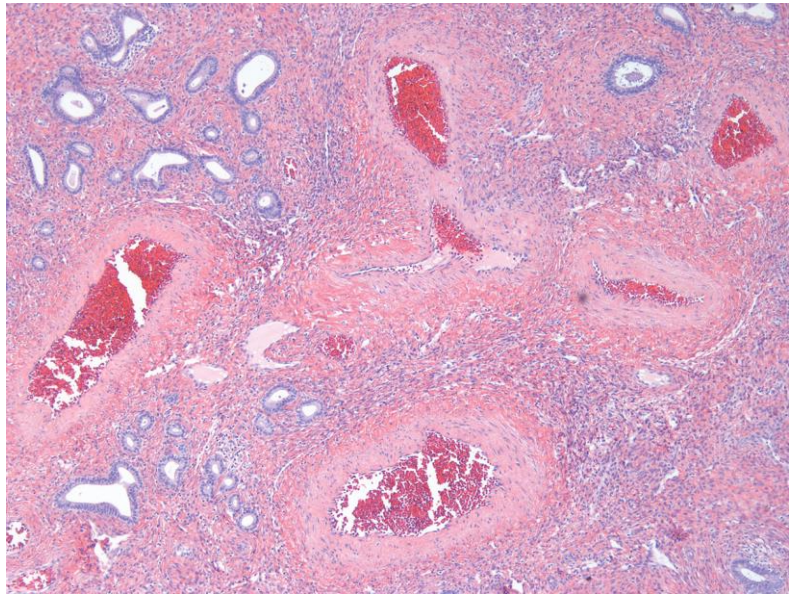
- Tubular, branching, cystic
- +/- crowded
- Inactive, atrophic, proliferative, rarely secretory
- +/- metaplasia
- +/- surface epithelial reactive changes

Stroma

- Fibroblastic
- Enlarged thick-walled vessels
- +/- hyalinized

- +/- ulceration, hemorrhage, degeneration





Endometrial Polyp

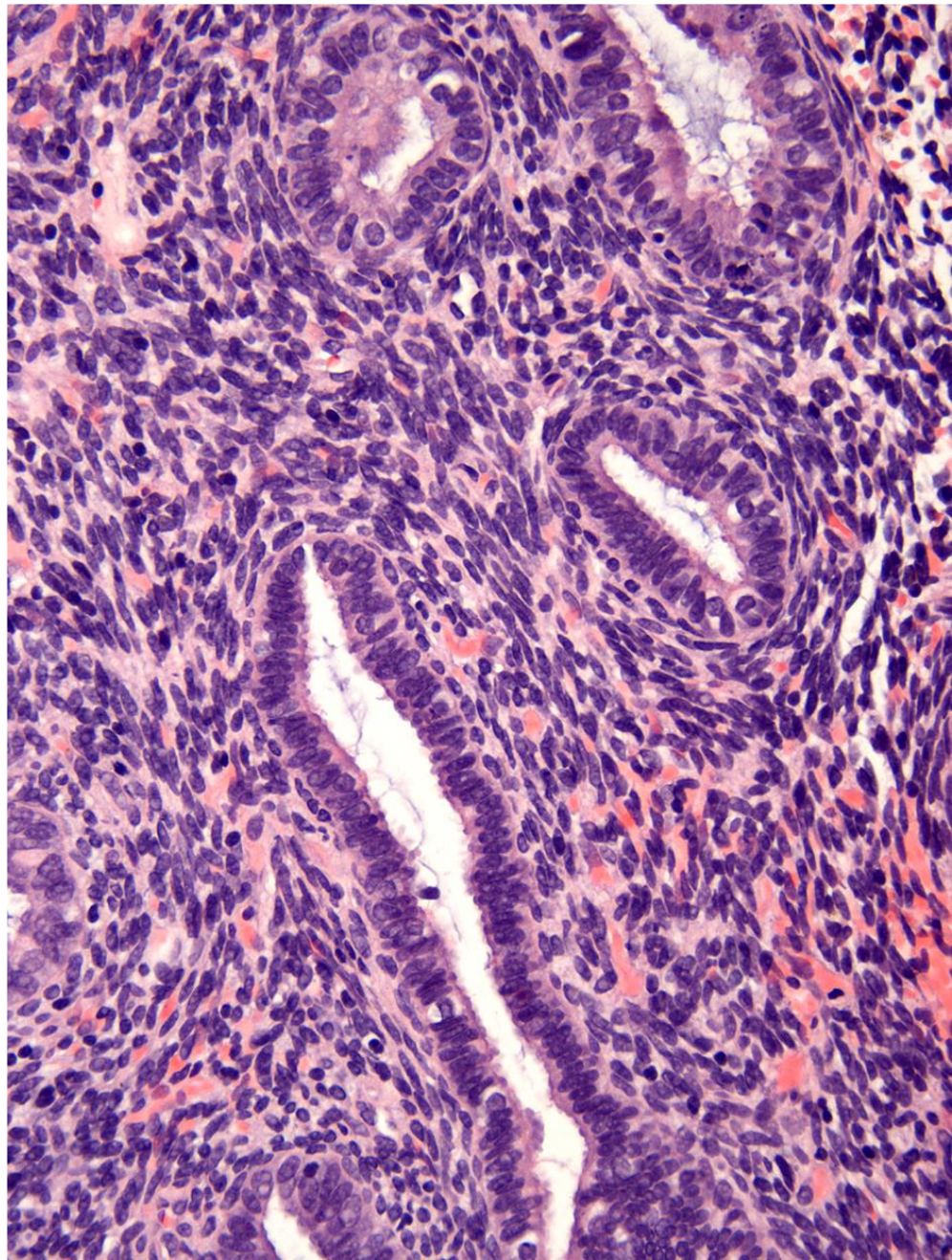
- Variants

Cellular Polyp

- Highly cellular stroma, evenly distributed
- No atypia

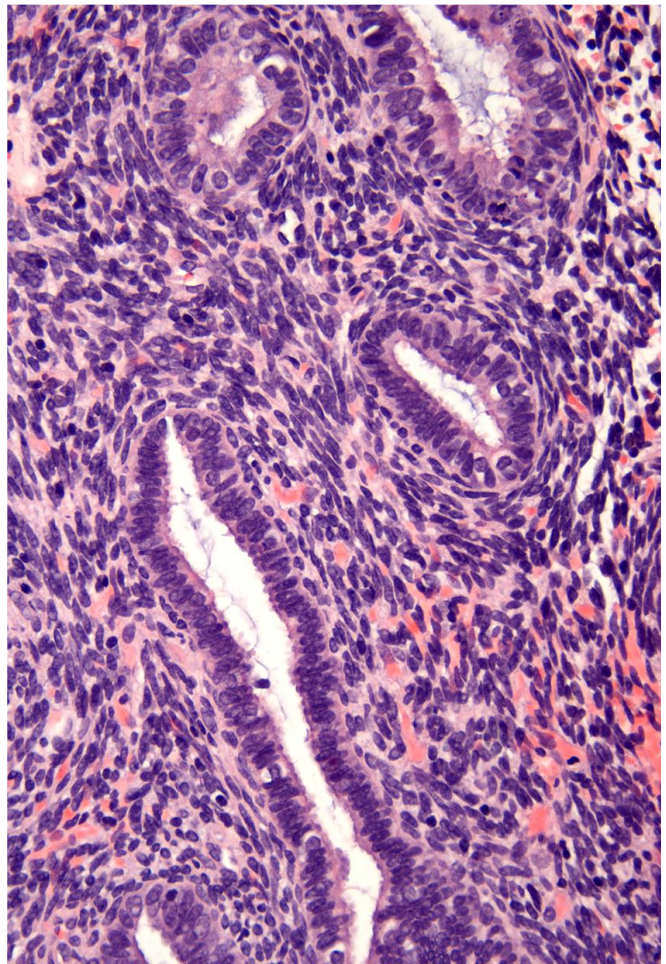
<u>Differential diagnosis</u>

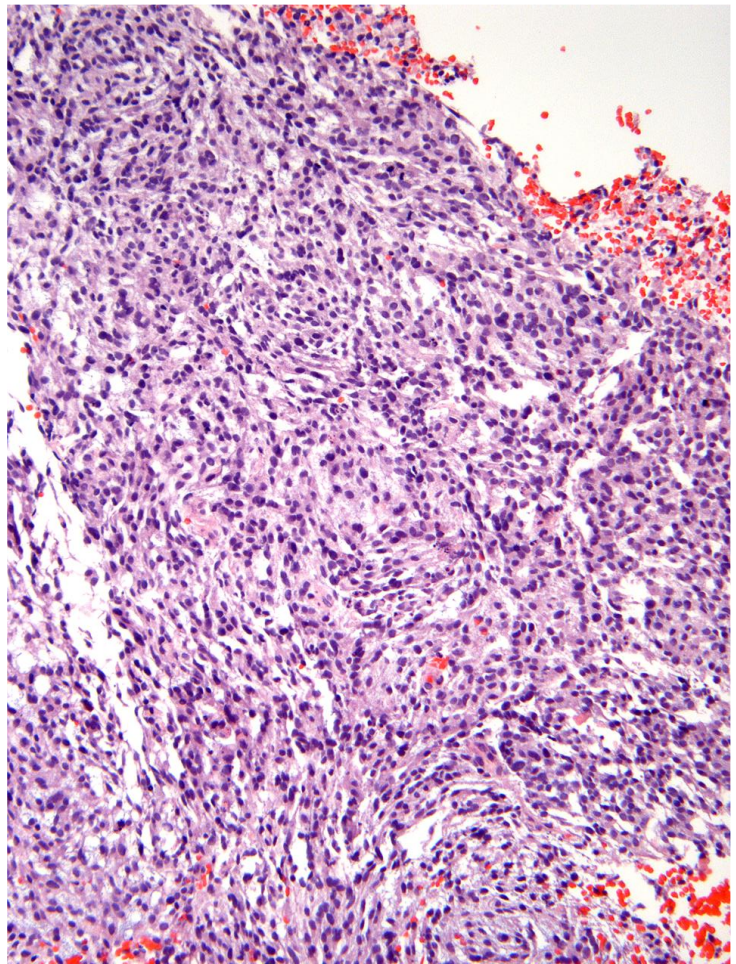
- Adenosarcoma
- Low grade endometrial stromal neoplasm



	Cellular Polyp	Adenosarcoma
Stroma distribution	Even, uniform cellularity across the fragments	Periglandular cuffing
Stroma atypia	No	Yes
Phyllodes-like growth	No	Yes
Periglandular stromal cuffing	No	Yes
Intraglandular stromal projections	No	Yes
Stromal overgrowth	No	Occasionally
Heterologous elements	No	Occasionally

	Cellular Polyp	Endometrial Stromal Neoplasm
Stromal growth pattern	Fascicular	Storiform
Stroma shape	Spindled	Plump
Thin-walled tiny arterioles	No	Yes
Intermixed glands and stroma	Yes	Less common





Endometrial Polyp

- Variants

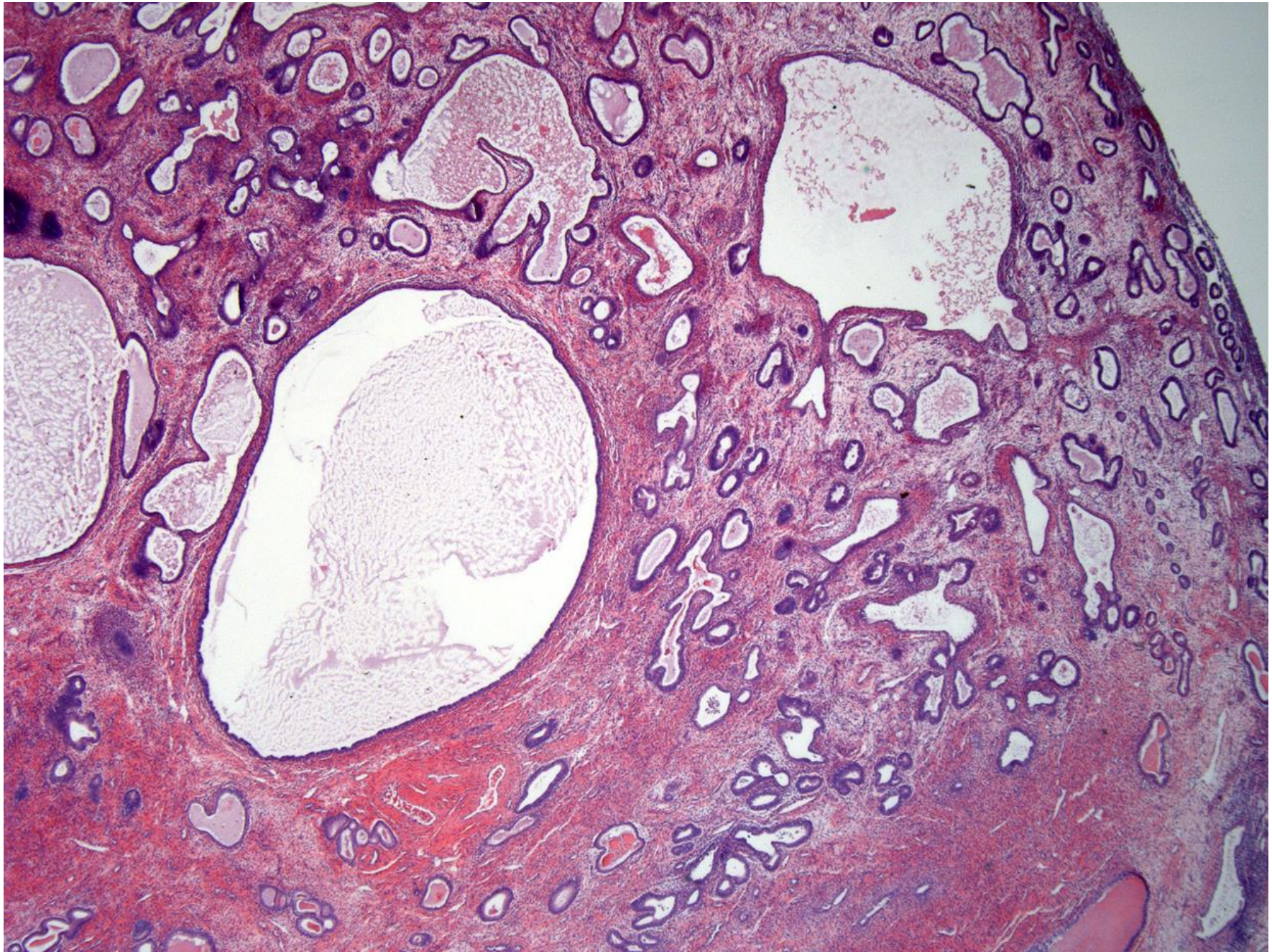
Cellular Polyp

Tamoxifen Polyp

- A spectrum of glandular and stromal features of polyp
- +/- intraglandular stromal projections
- +/- focal periglandular stromal condensation
- +/- stromal mitoses

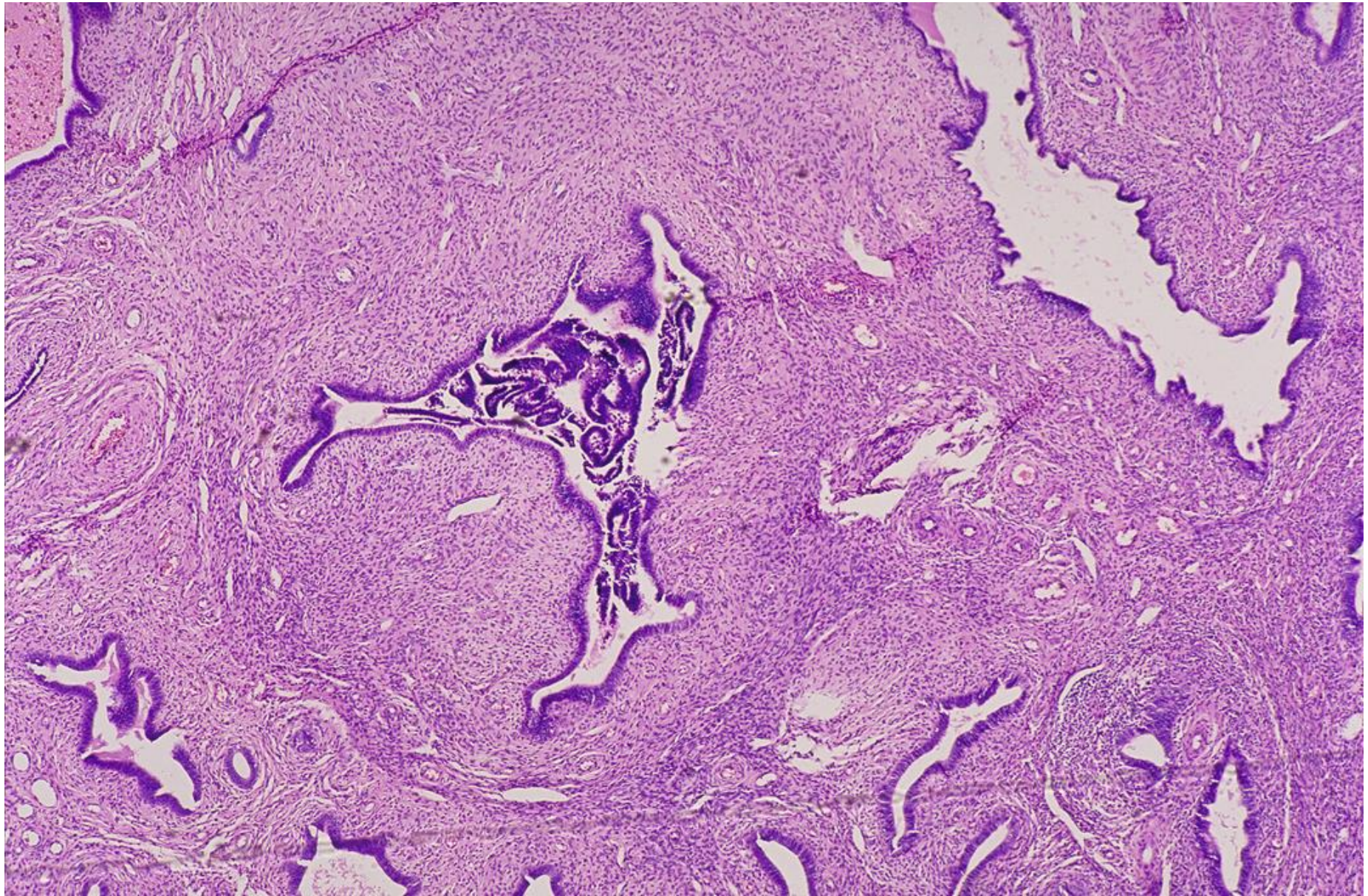
Ismail 1994 PMID: 7962652
Han 2017 Mod Pathol 30: 288A

Tamoxifen Polyp



Tamoxifen Polyp

? Focal periglandular stromal cuffing
? Intraglandular stromal projection



Endometrial Polyp

- Variants

Cellular Polyp

Tamoxifen Polyp

- A spectrum of glandular and stromal features of polyp
- +/- intraglandular stromal projections
- +/- focal periglandular stromal condensation
- +/- stromal mitoses

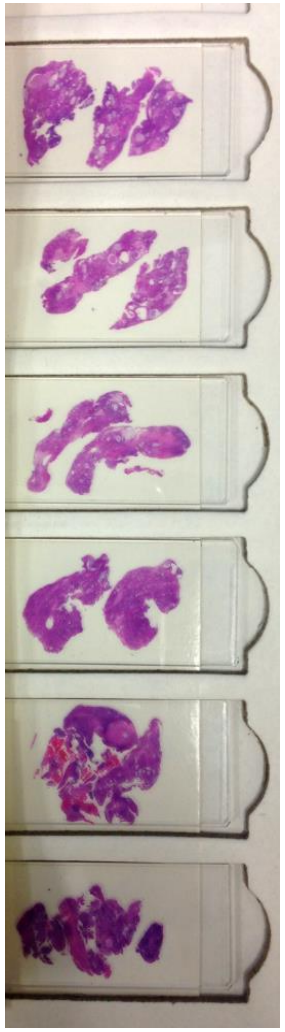
Clinical significance: None.

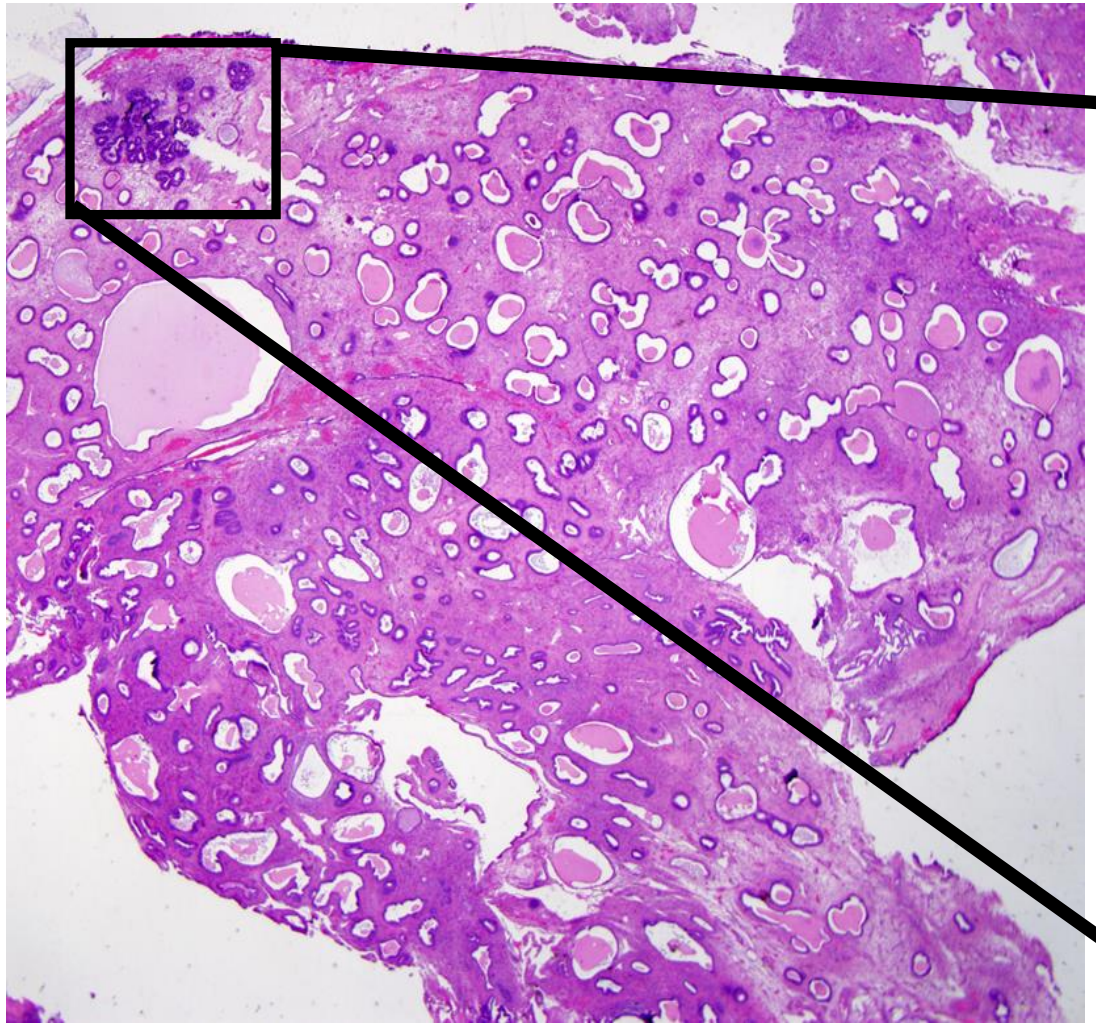
But confirm that entire polyp has been examined microscopically

Submit Entire Polypectomy Specimens for Microscopic Exam

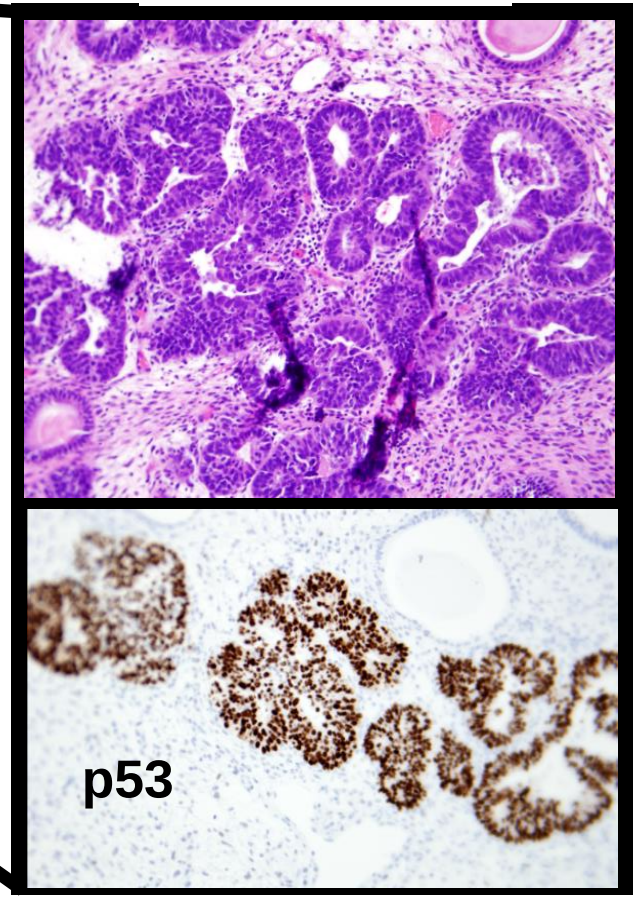
Particularly if post-menopausal or on tamoxifen treatment

Rule out small occult foci of carcinoma





Serous carcinoma in a polyp



Endometrial Polyp

- Variants

Cellular Polyp

Tamoxifen Polyp

- A spectrum of glandular and stromal features of polyp
- +/- intraglandular stromal projections
- +/- focal periglandular stromal condensation
- +/- stromal mitoses

Clinical significance: None.

But confirm that entire polyp has been examined microscopically

Differential diagnosis
- Adenosarcoma

Ismail 1994 PMID: 7962652
Han 2017 Mod Pathol 30: 288A

Polypectomy Specimens with Concern for Adenosarcoma

Differential diagnosis

- **Endometrial polyp with variant morphology**
- **Adenofibroma**
- **Adenosarcoma**

Polypectomy Specimens with Concern for Adenosarcoma

Differential diagnosis

- Endometrial polyp with variant morphology
- **Adenofibroma** → **Removed from 5th W.H.O. classification**
- Adenosarcoma

Rationale:

- **Adverse behavior has been reported** Gallardo 2009 PMID: 18941402
- **Likely are lowest end of the spectrum of adenosarcoma**

- **Diagnostic distinction from adenosarcoma:**
  - Controversial criteria (i.e. role of mitotic index)
  - Poor reproducibility

Polypectomy Specimens with Concern for Adenosarcoma

Differential diagnosis

- **Endometrial polyp with variant morphology**
- **Adenosarcoma**

How to deal with overlapping features?

Adenosarcoma

Definition (5th W.H.O.)

<u>Biphasic tumor</u>: benign epithelium + malignant stroma

Architecture:

- **Phyllodes-like growth**
- **Periglandular stromal cuffing**

Stroma:

- **Atypia** (mild, moderate or severe)
- **+/- mitoses** *(controversial issue)*

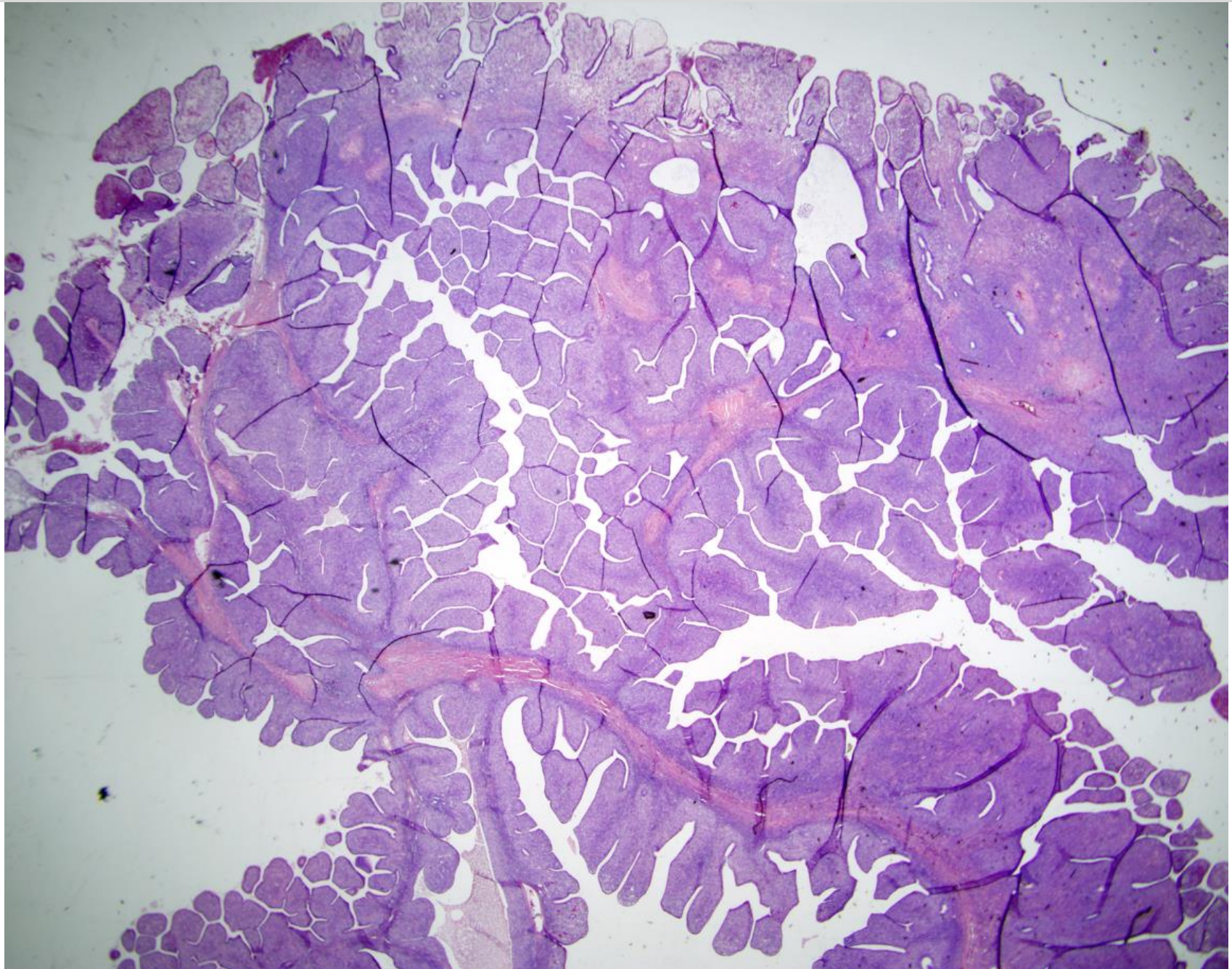
Essential criteria

Occasional features:

- **Heterologous elements**
- **Stromal overgrowth**
- **Sex cord like elements**

Size: **usually 5-6 cm**

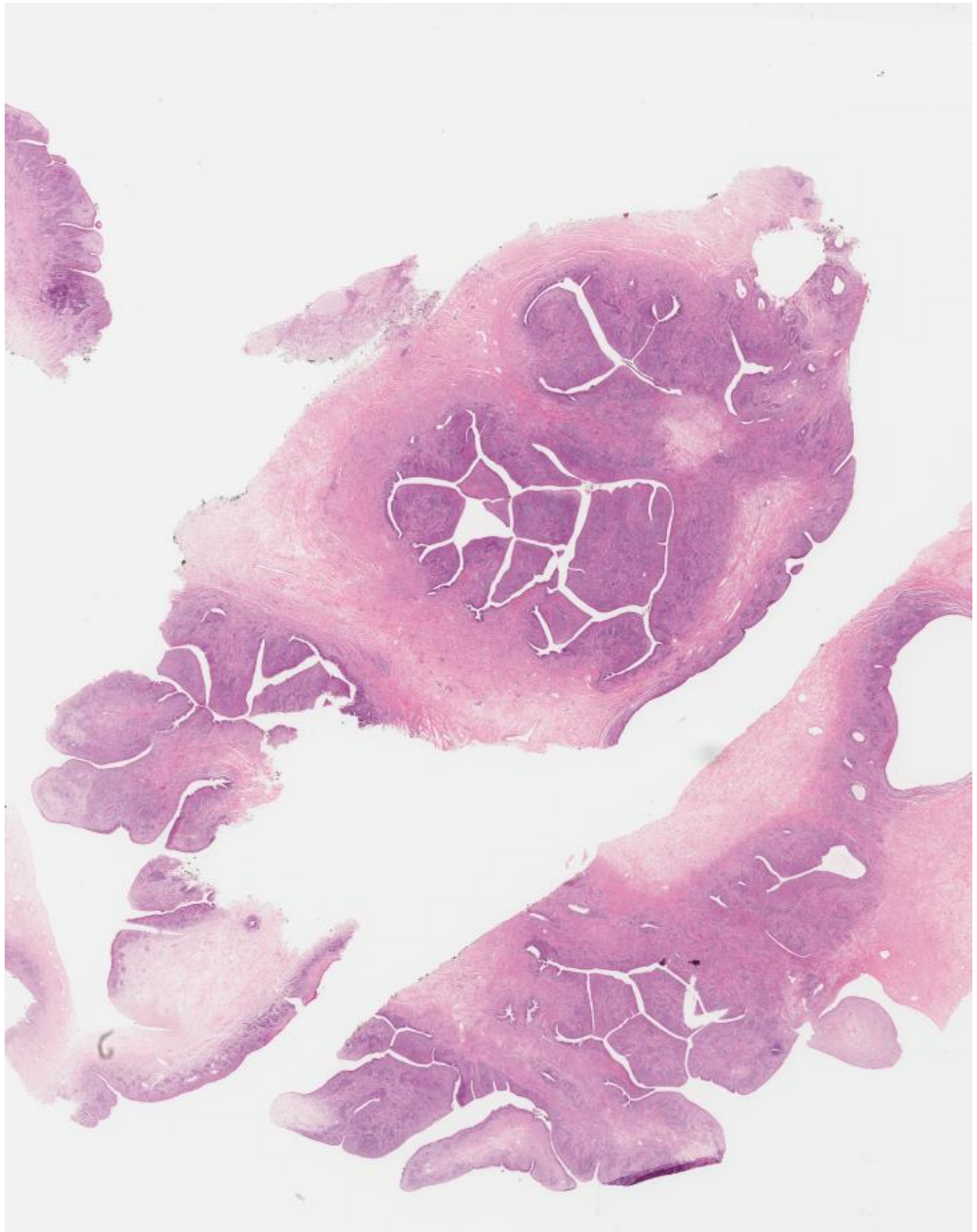
Adenosarcoma: *Phyllodes-like growth*

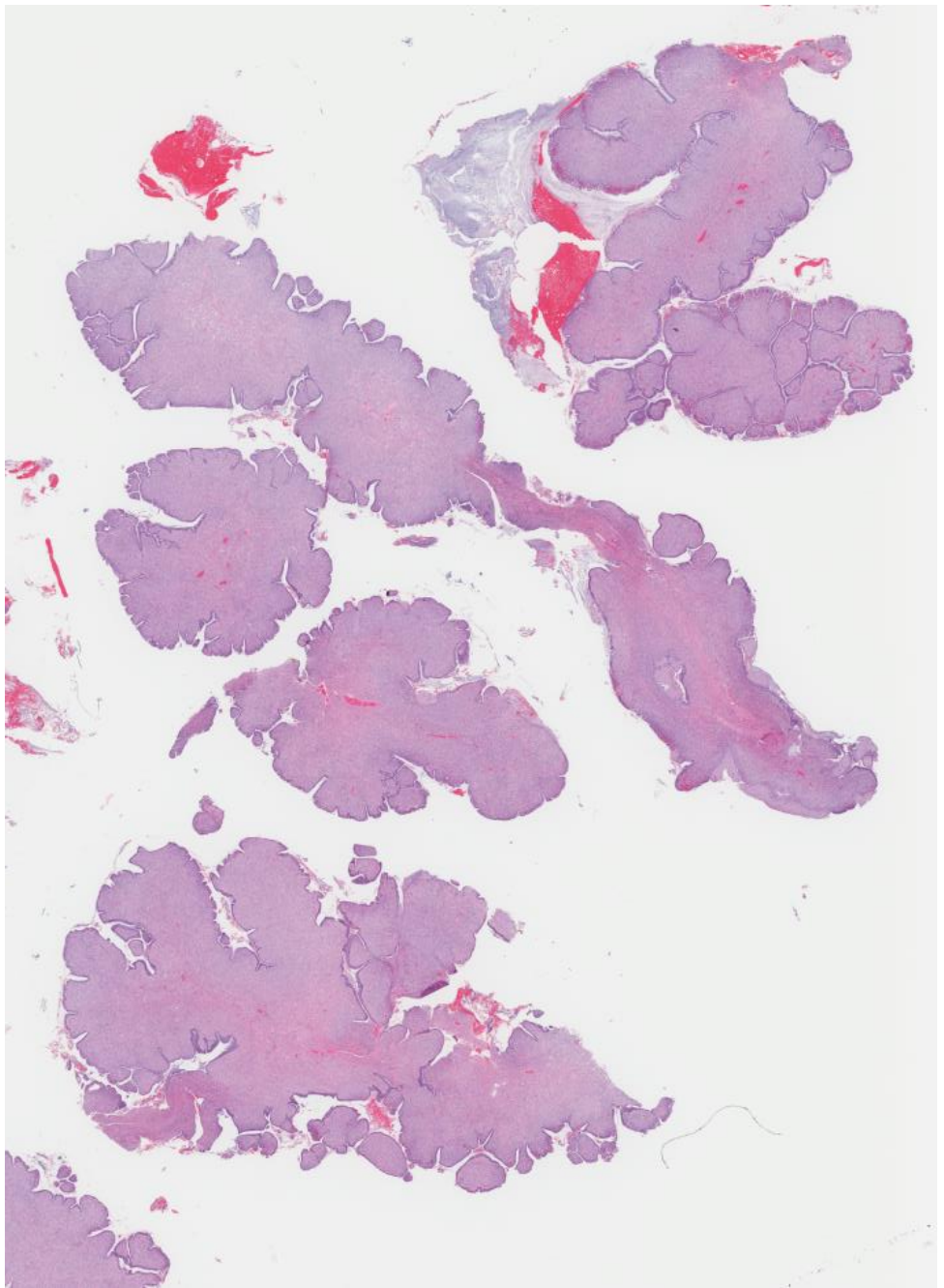


Adenosarcoma: *Phyllodes-like growth*

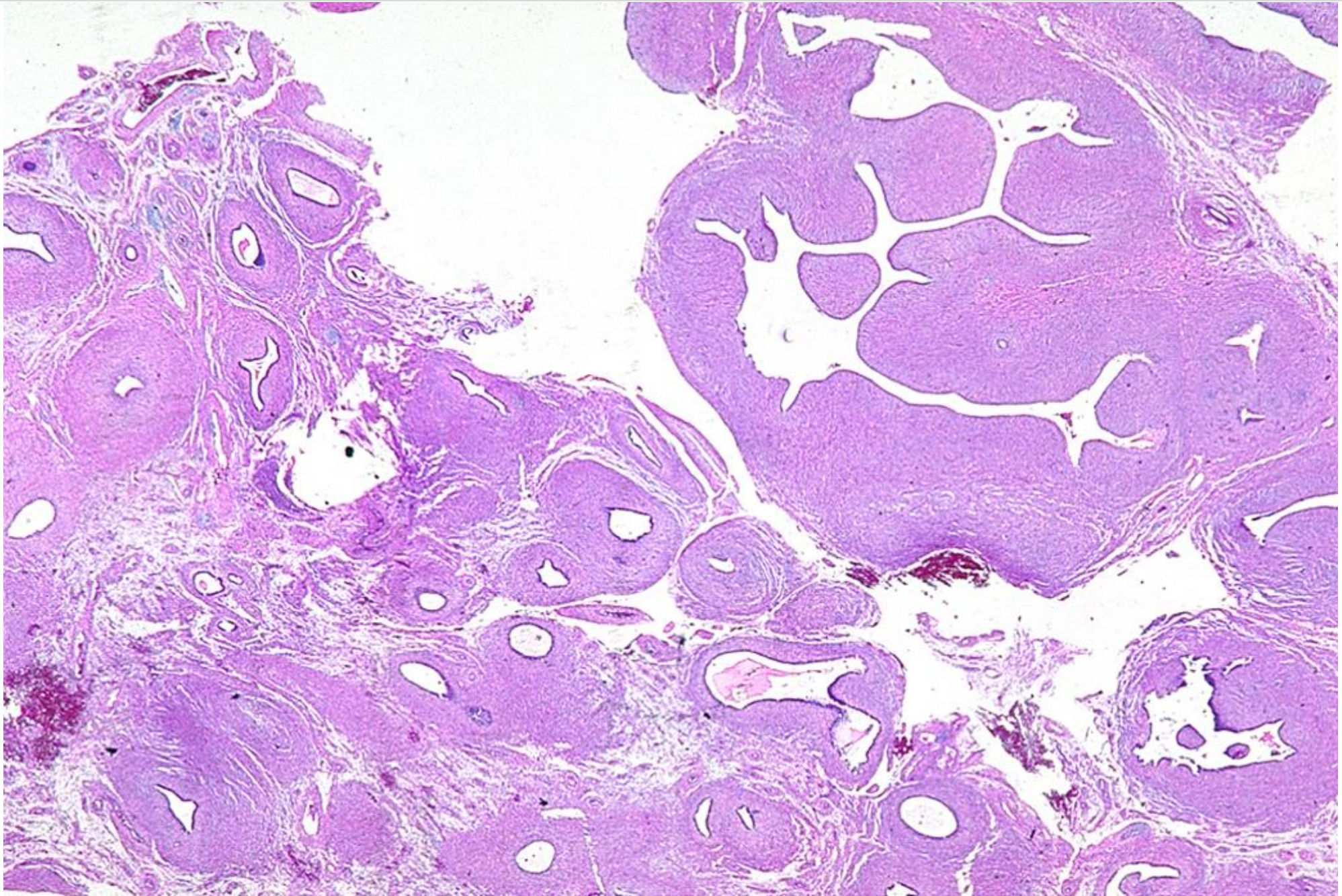


Adenosarcoma: *Phyllodes-like growth*

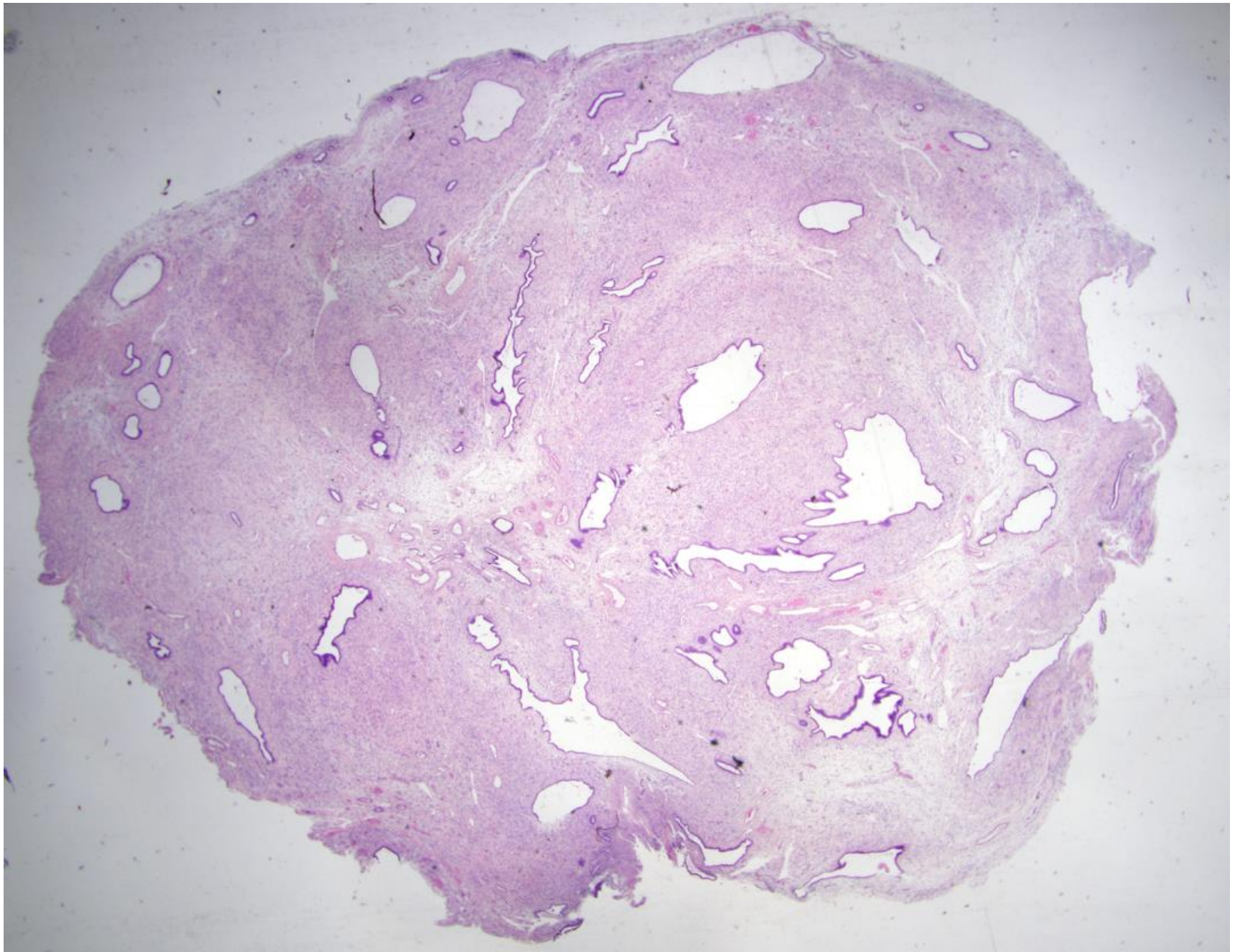




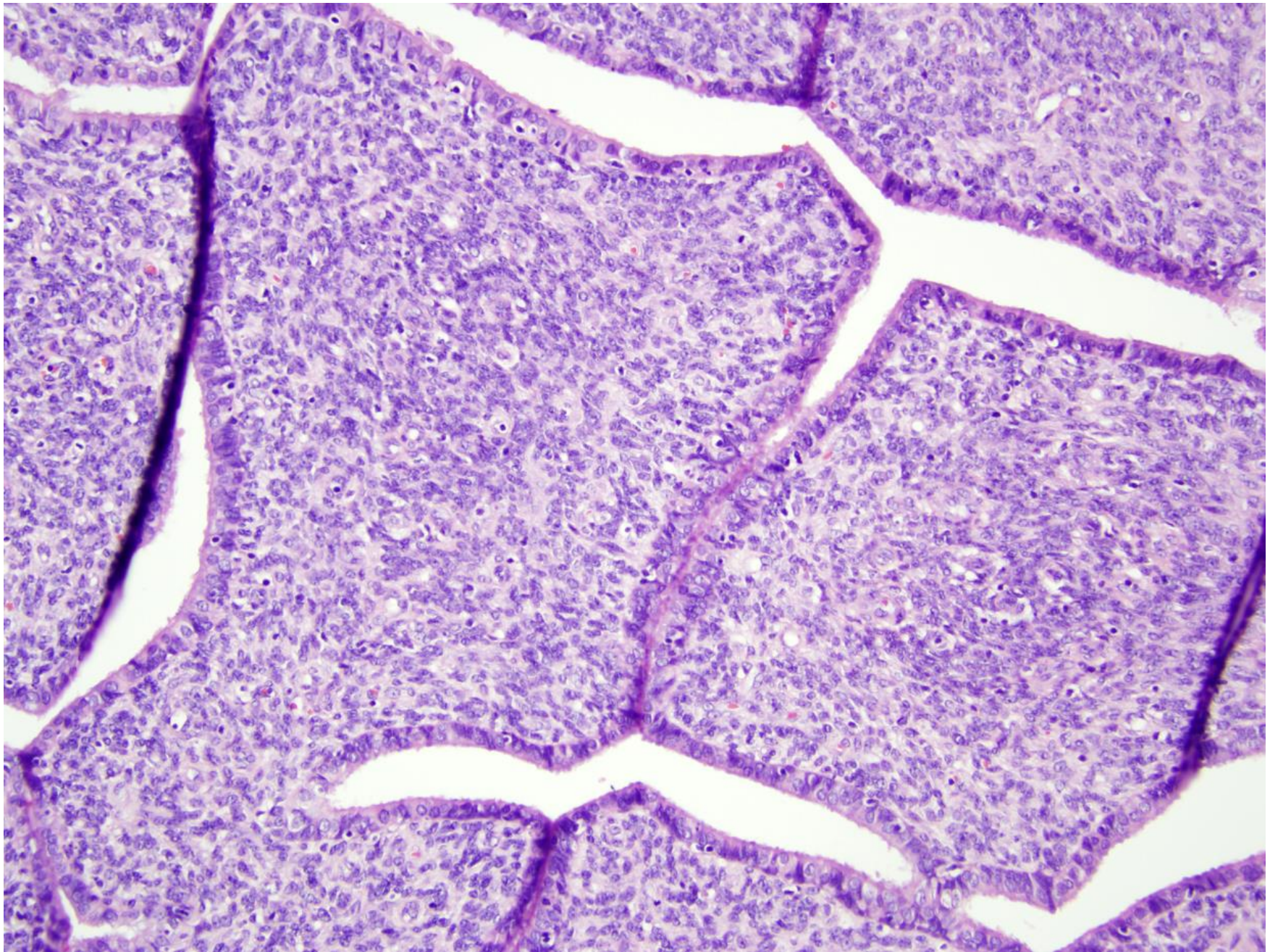
Adenosarcoma: *Periglandular stromal cuffing*



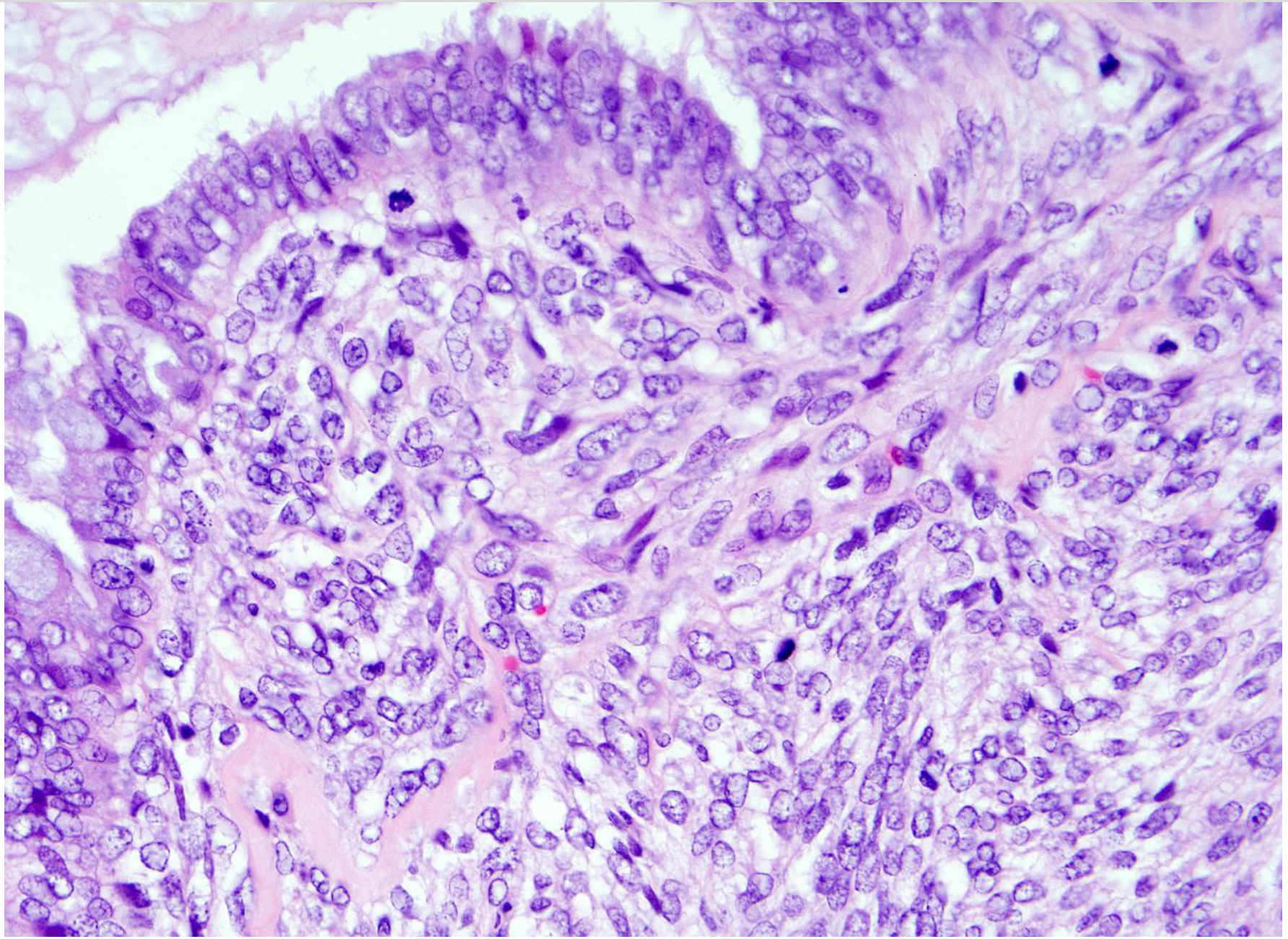
Adenosarcoma: *Periglandular stromal cuffing*



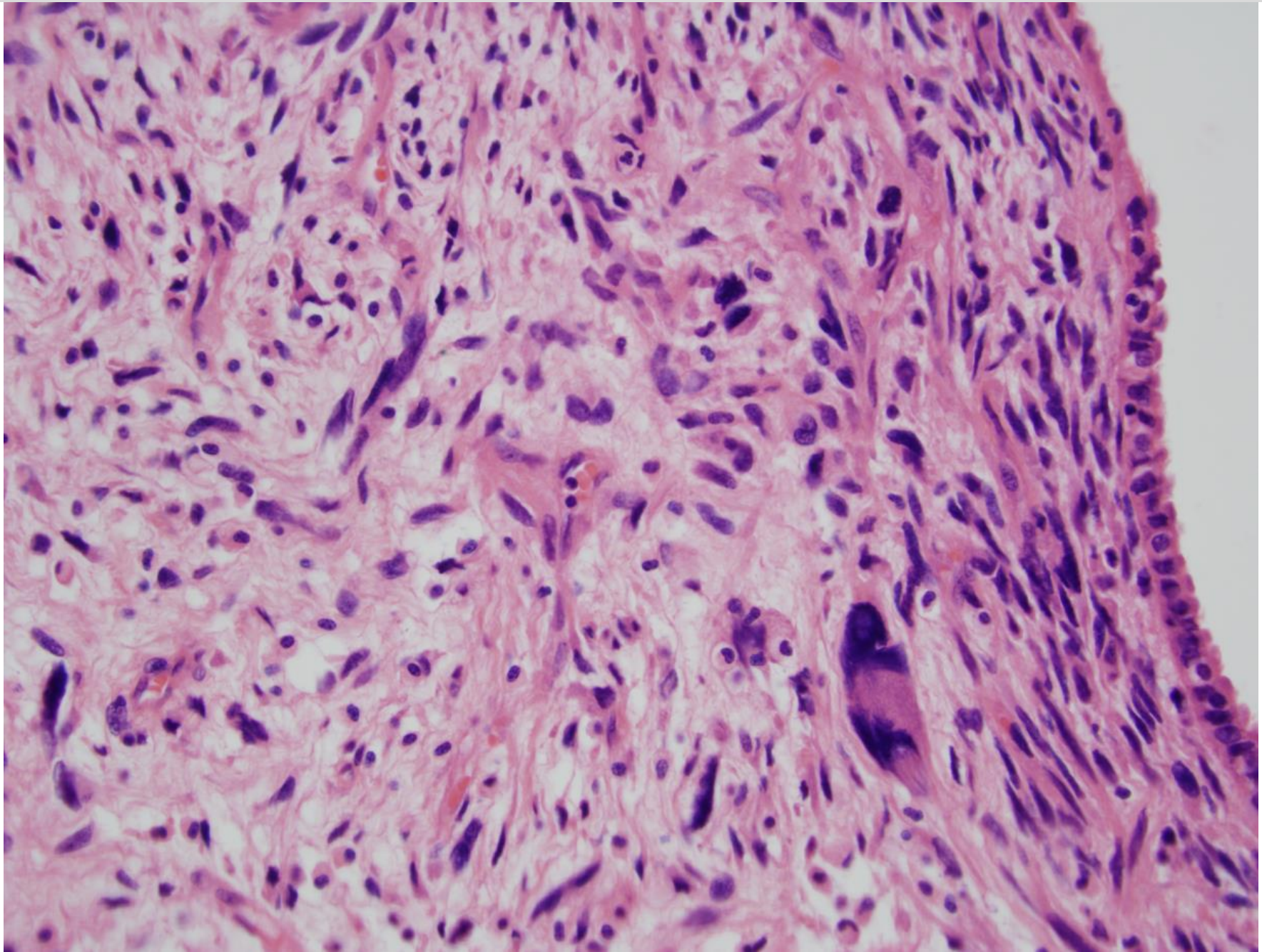
Adenosarcoma: *Stromal atypia*



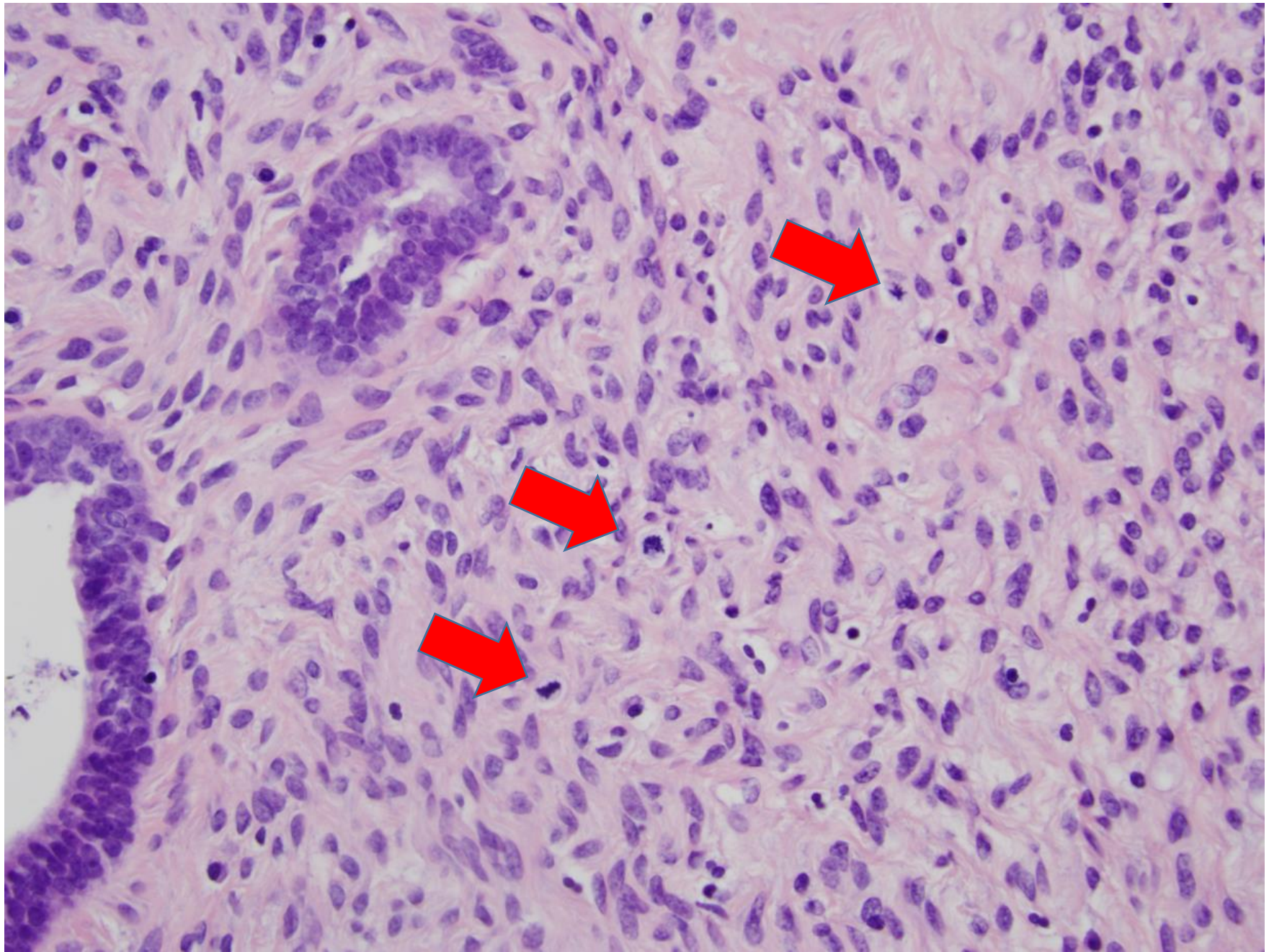
Adenosarcoma: *Stromal atypia*



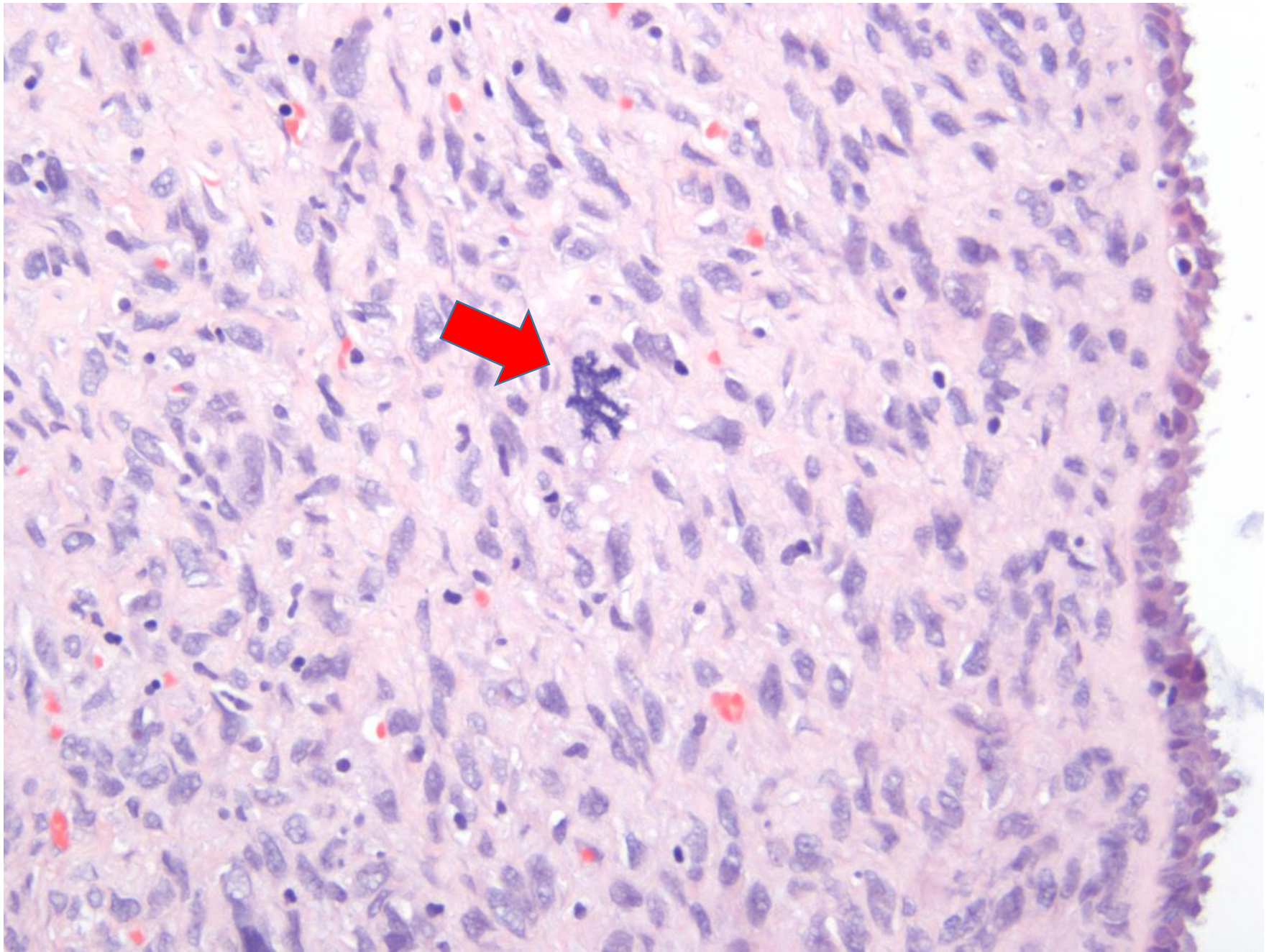
Adenosarcoma: *Stromal atypia*



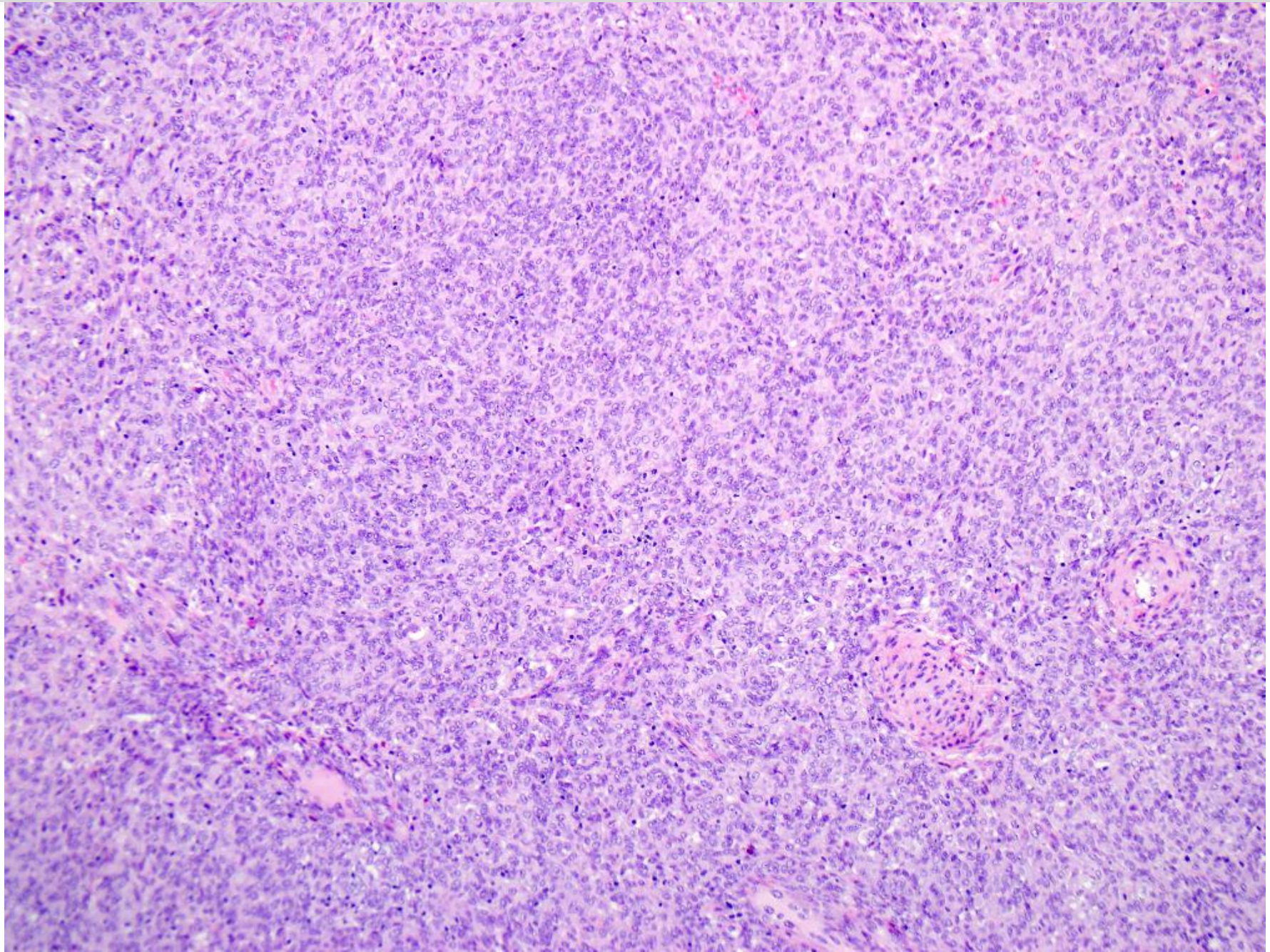
Adenosarcoma: *Mitoses*



Adenosarcoma: *Mitoses*

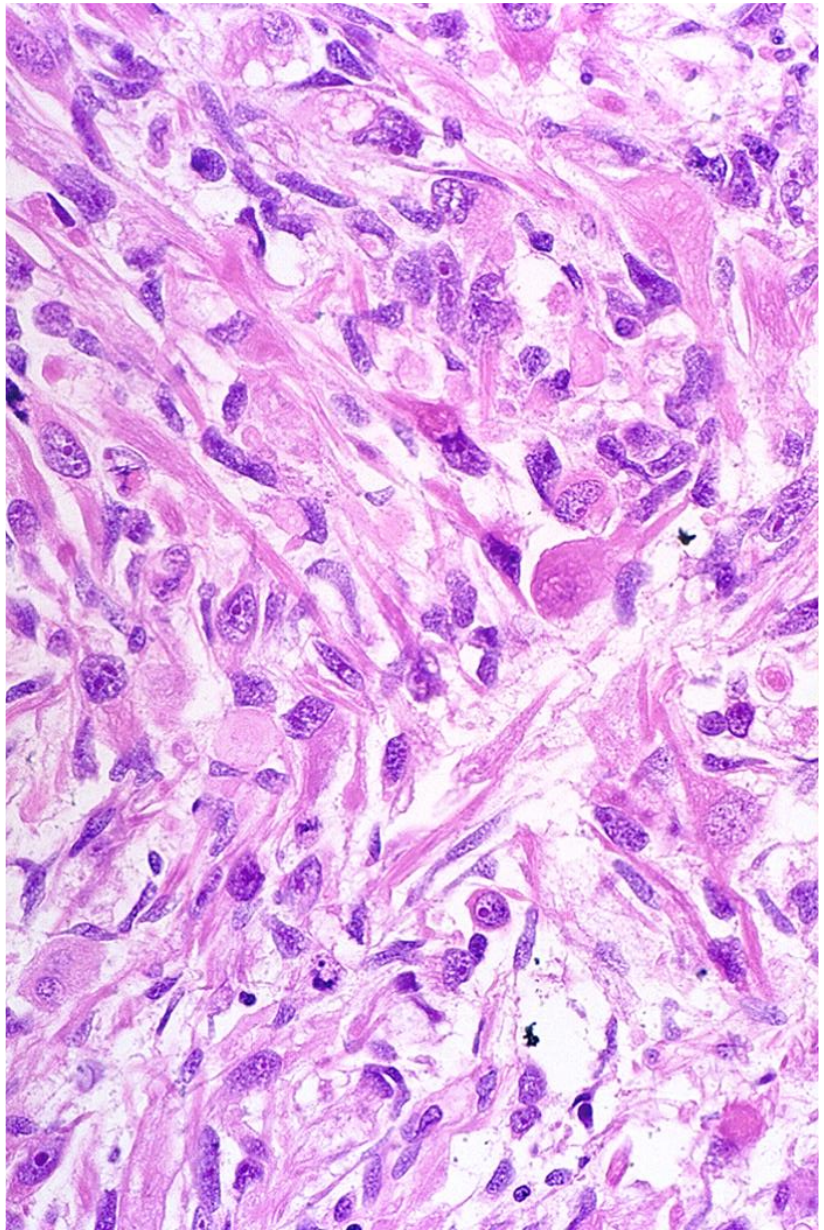


Adenosarcoma: *Stromal overgrowth*

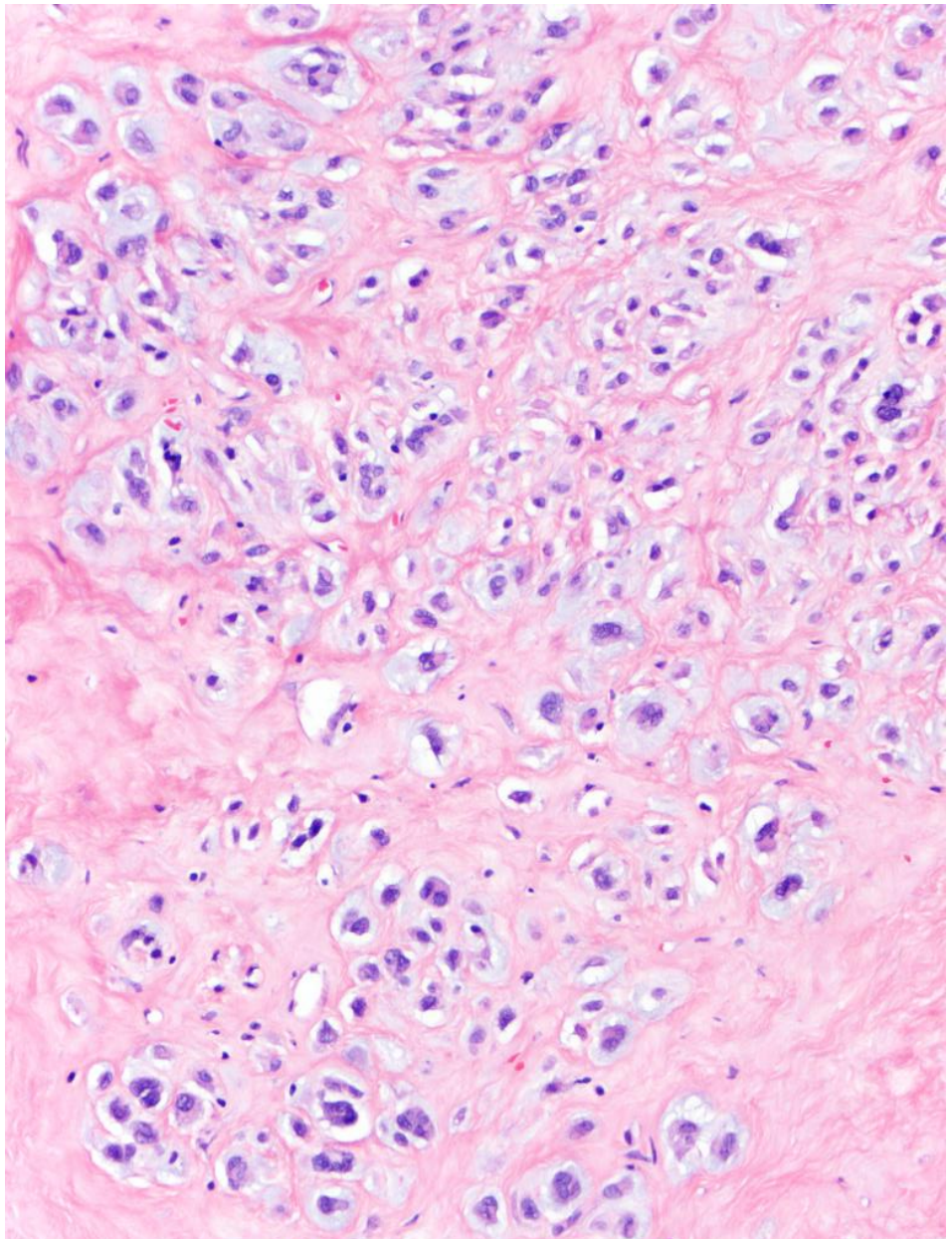


Adenosarcoma: *Heterologous elements*

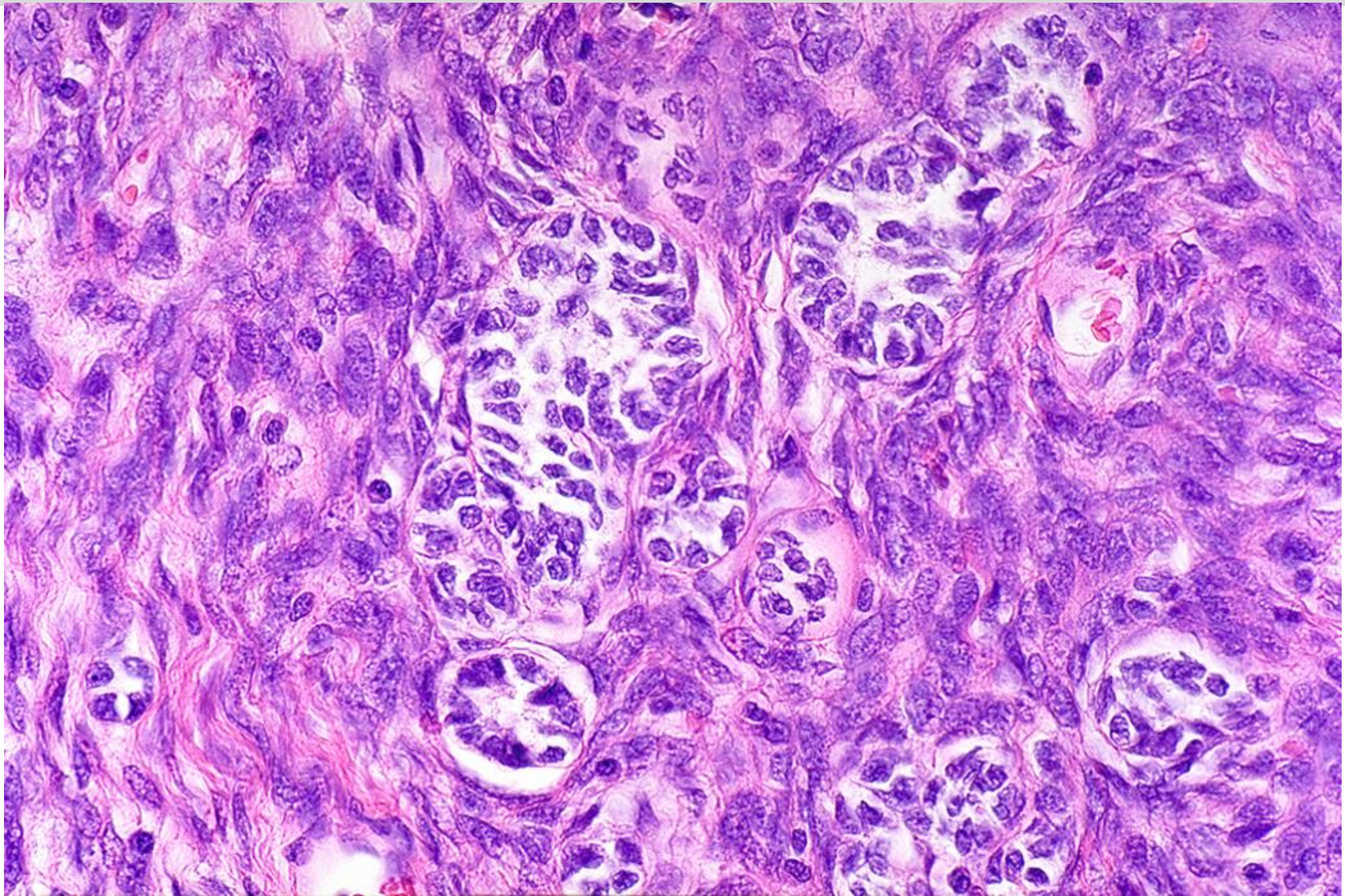
Rhabdomyosarcomatous



Chondroid



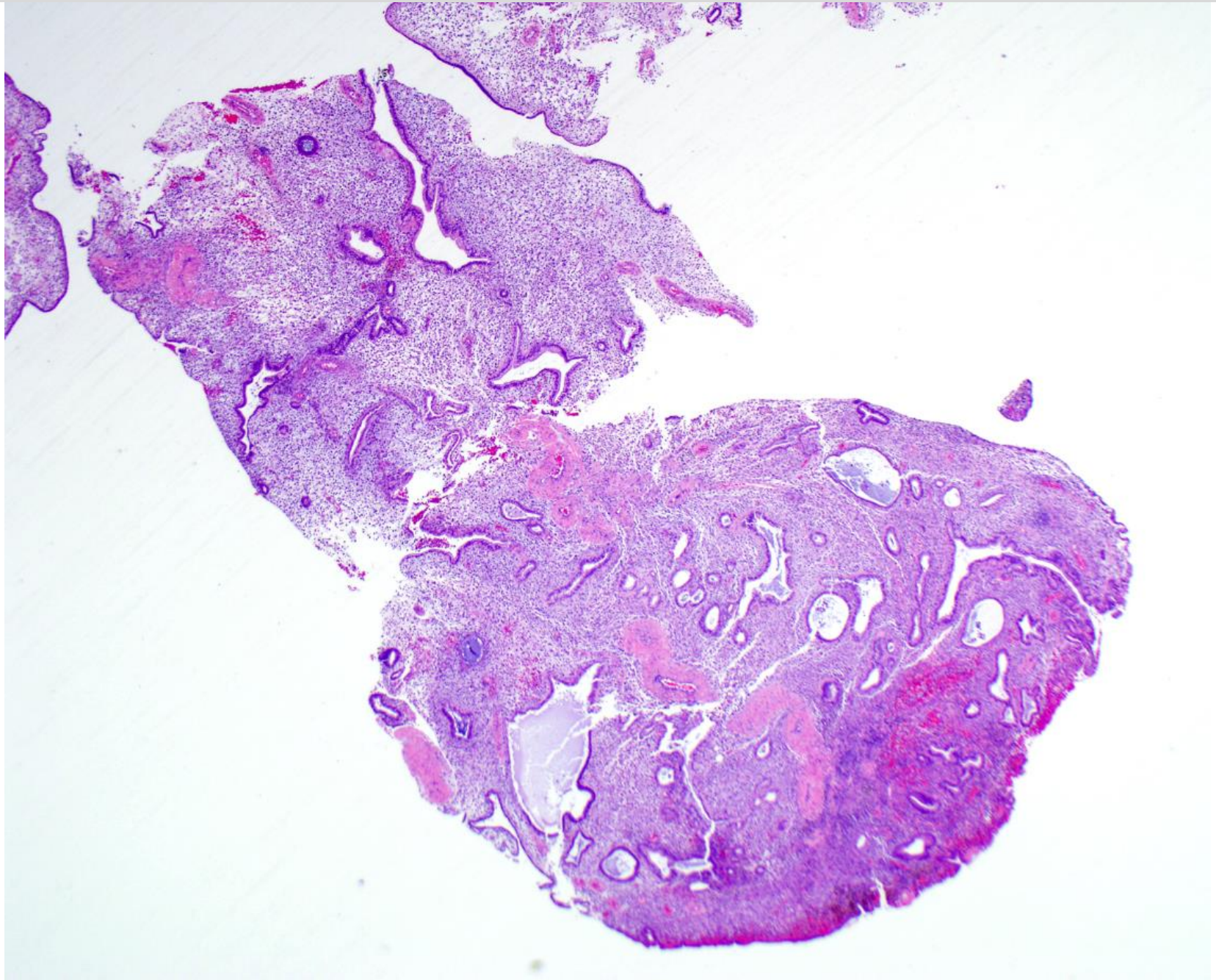
Adenosarcoma: *Sex cord like elements*



Polypectomy Specimens with Concern for Adenosarcoma but Not Diagnostic

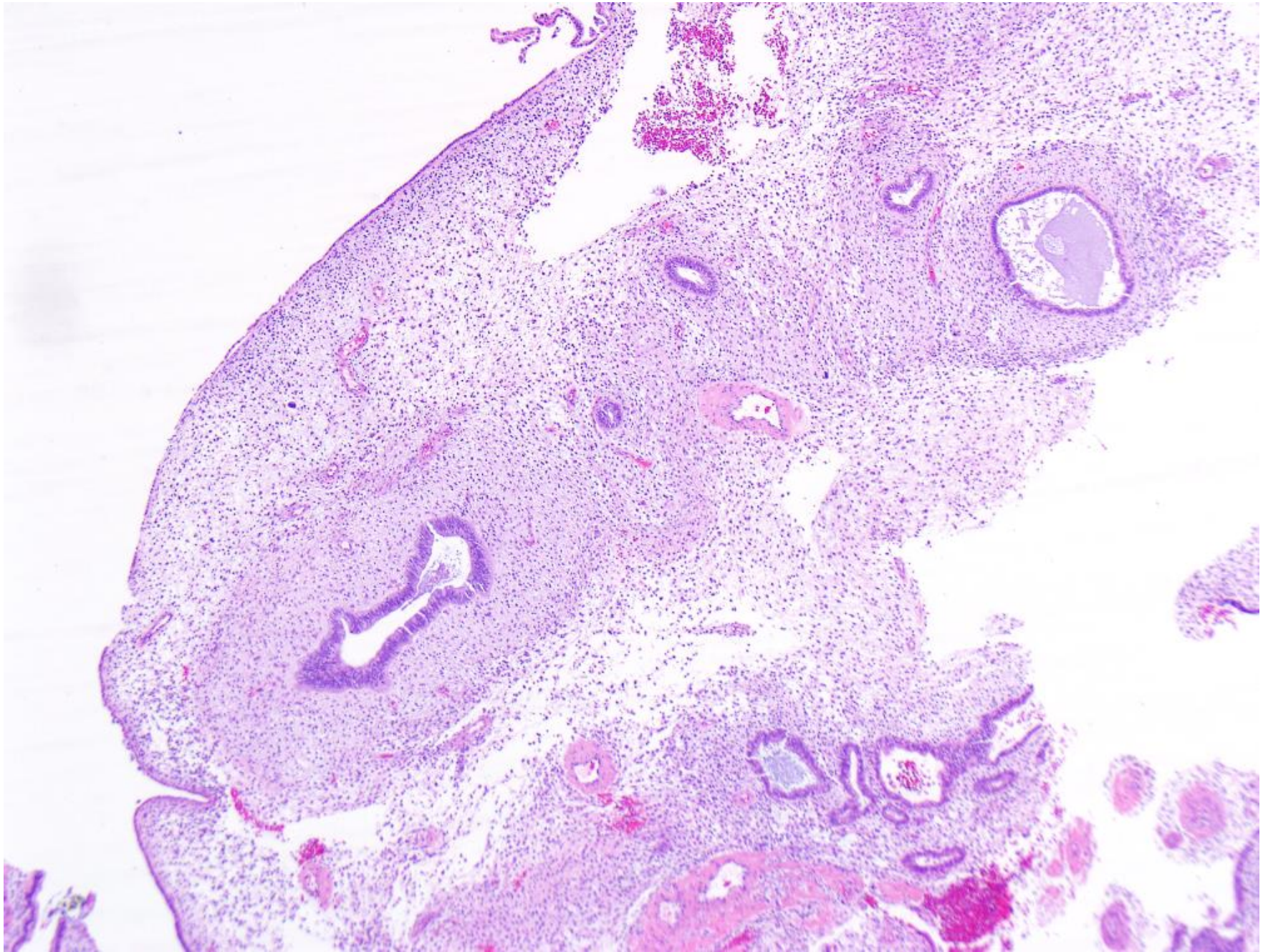
How to classify and report ?

Polyp with focal periglandular stromal cuffing



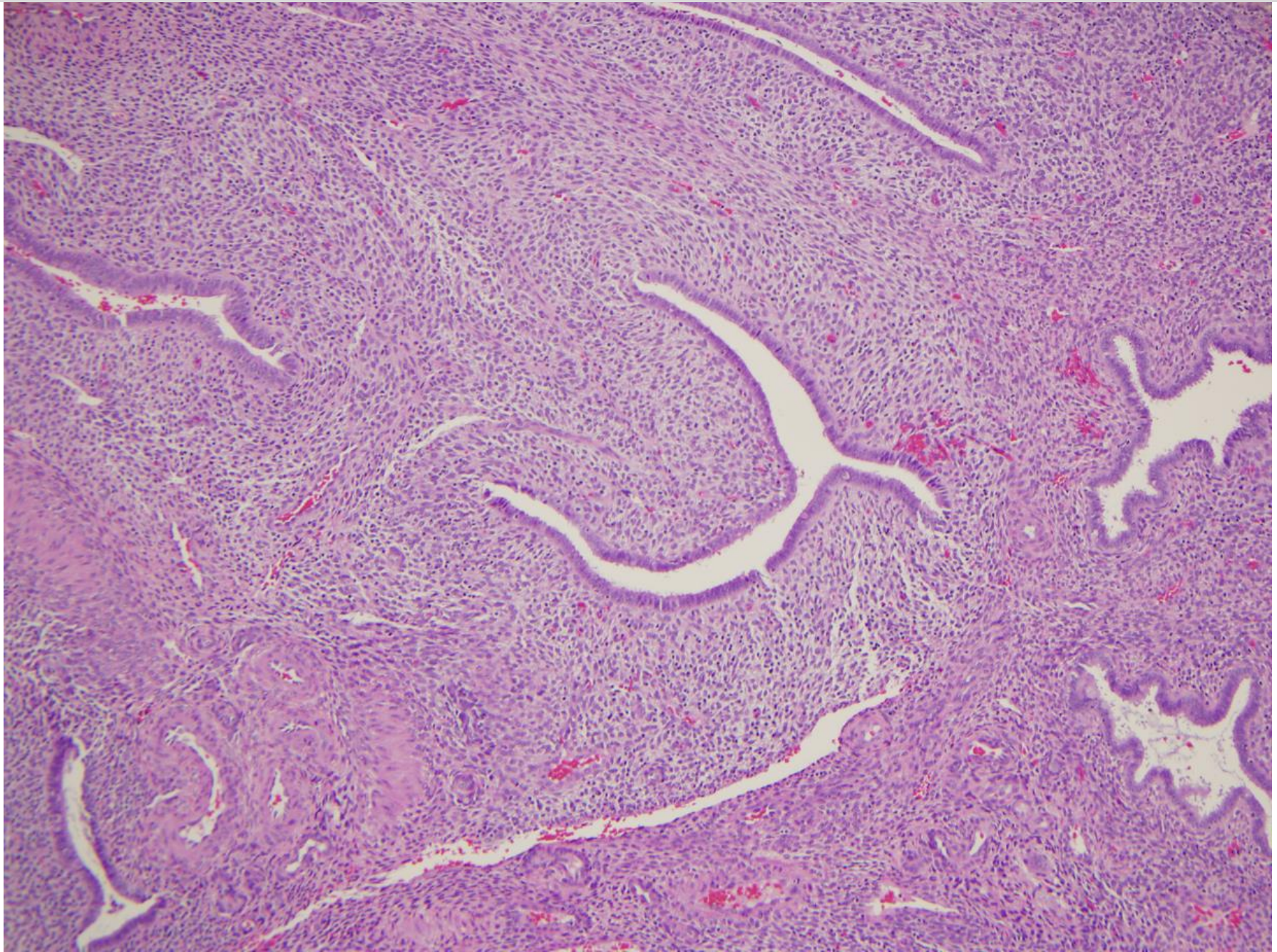
No stromal atypia

Polyp with focal periglandular stromal cuffing



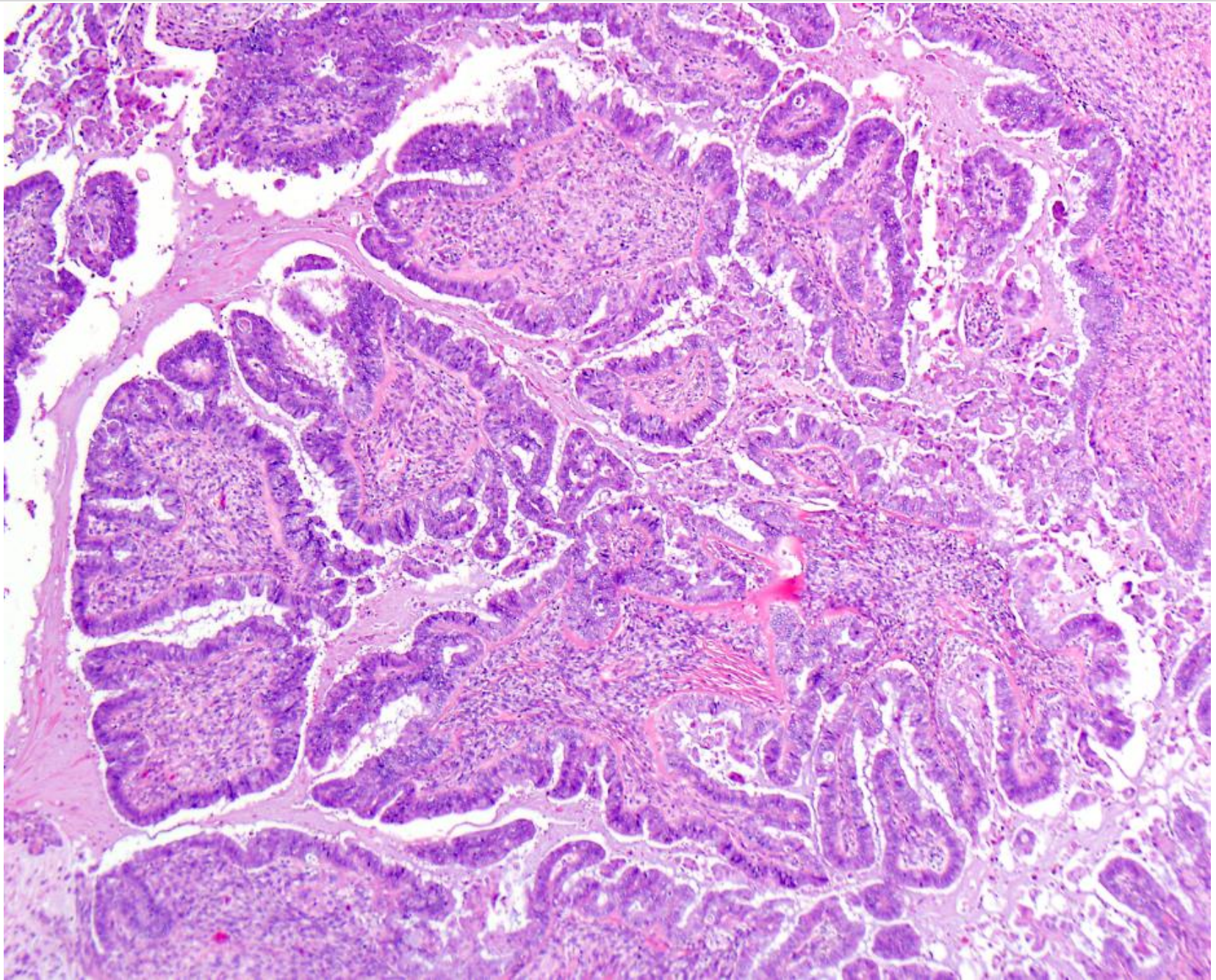
No stromal atypia

Polyp with focal stromal cuffing and intraglandular projection



No stromal atypia

Polyp with focal Phyllodes-like growth



No stromal atypia

Polypectomy Specimens with Concern for Adenosarcoma but Not Diagnostic

Likely benign if:

- **Under ~3.5 cm**
- **Concerning architecture* is:**
  - **a.) only focal in the polyp**
  - **b.) only partially-developed**
- **No stromal atypia**

Howitt 2015 PMID: 25118811

*Concerning architecture:
* Phyllodes-like growth
* intraglandular polypoid projections
* periglandular cellularity

Conclusion:

- **Avoid outright diagnosis of adenosarcoma**
- **Use descriptive diagnosis** **"***polyp with unusual features***"**
- **Recommend long term follow up**

Polypectomy Specimens with Concern for Adenosarcoma but Not Diagnostic

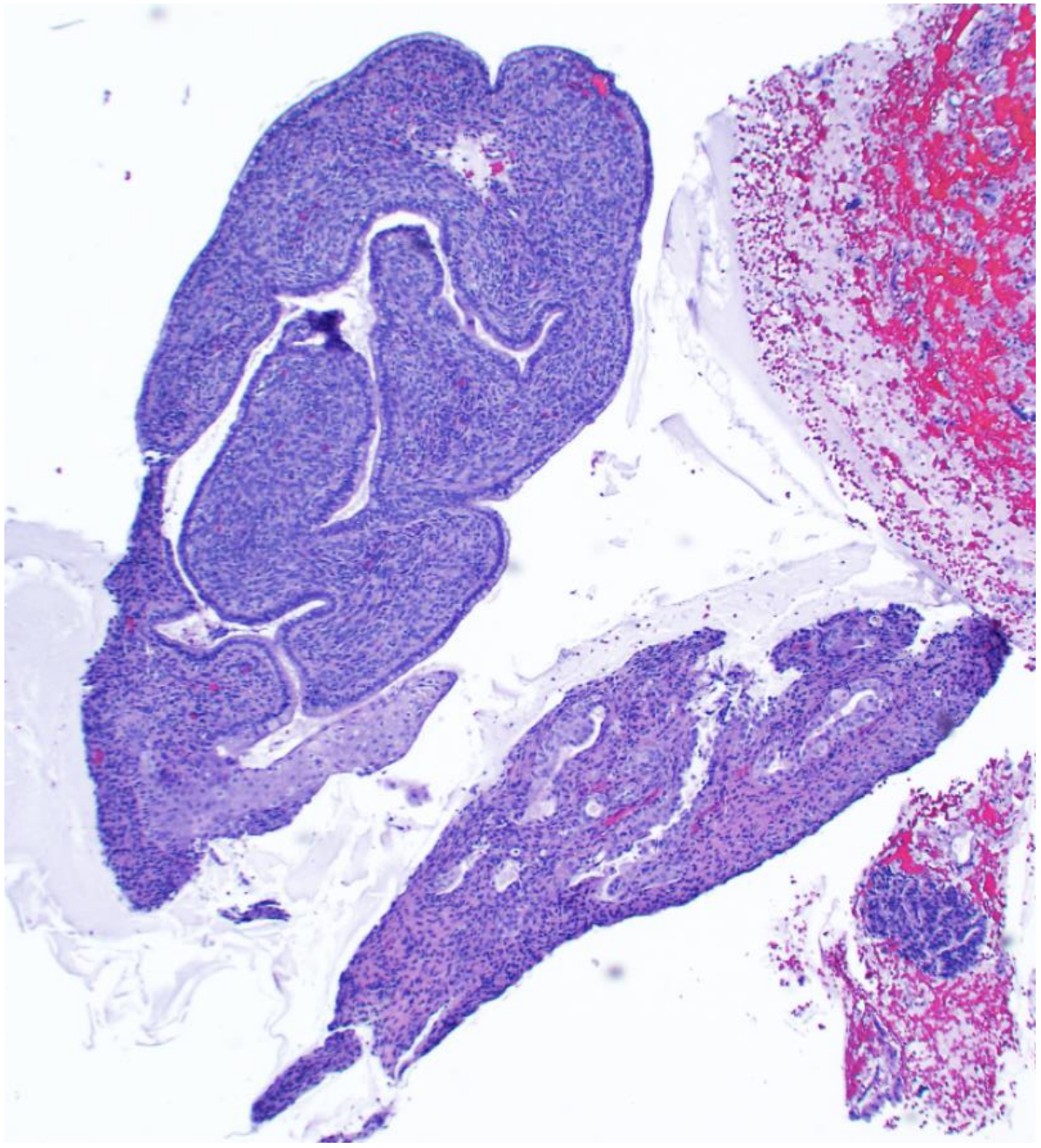
Likely benign if:

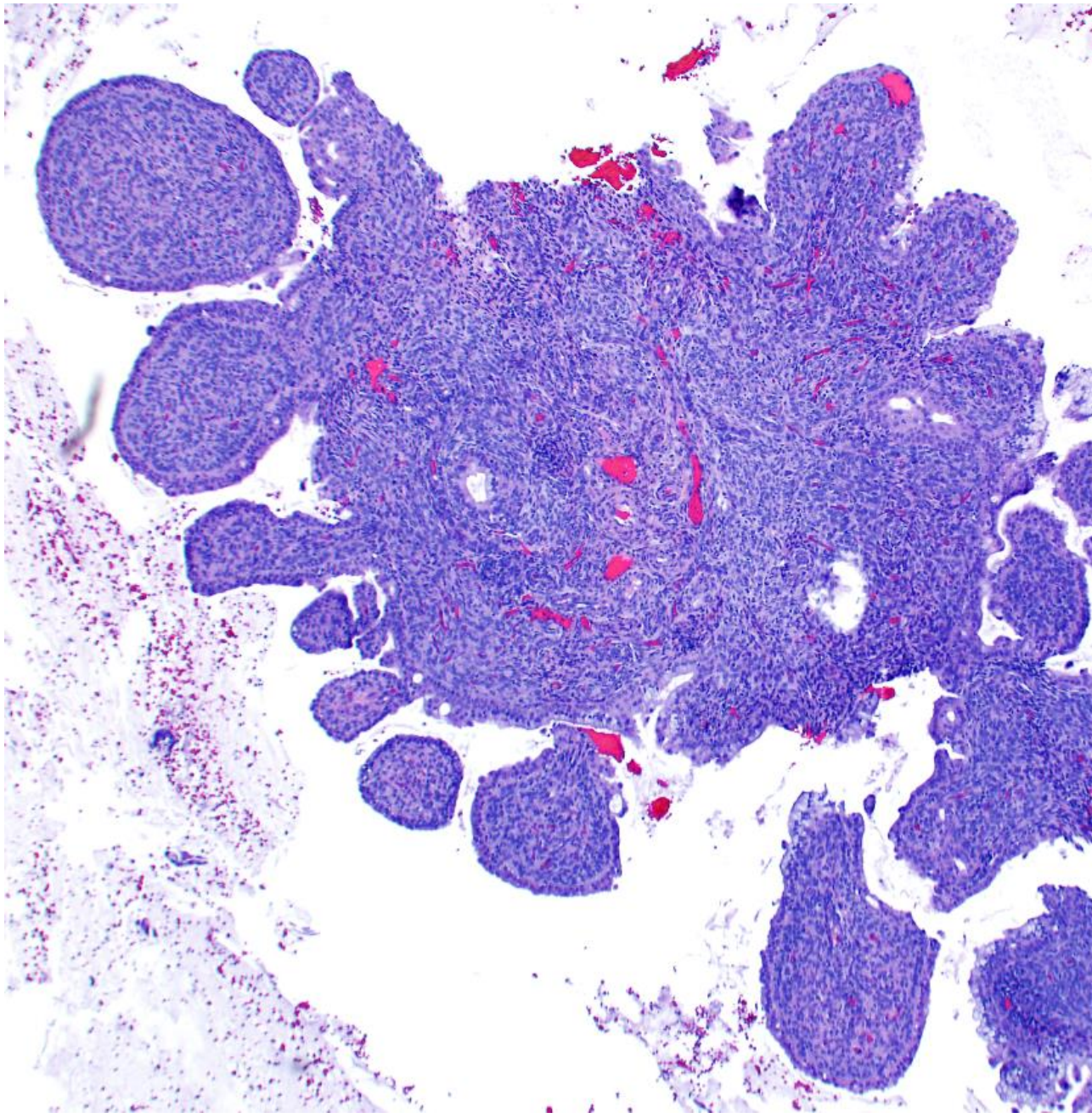
- **Under ~3.5 cm**

Key Caveat: **This refers to the entire lesion, not just the biopsy lesion**

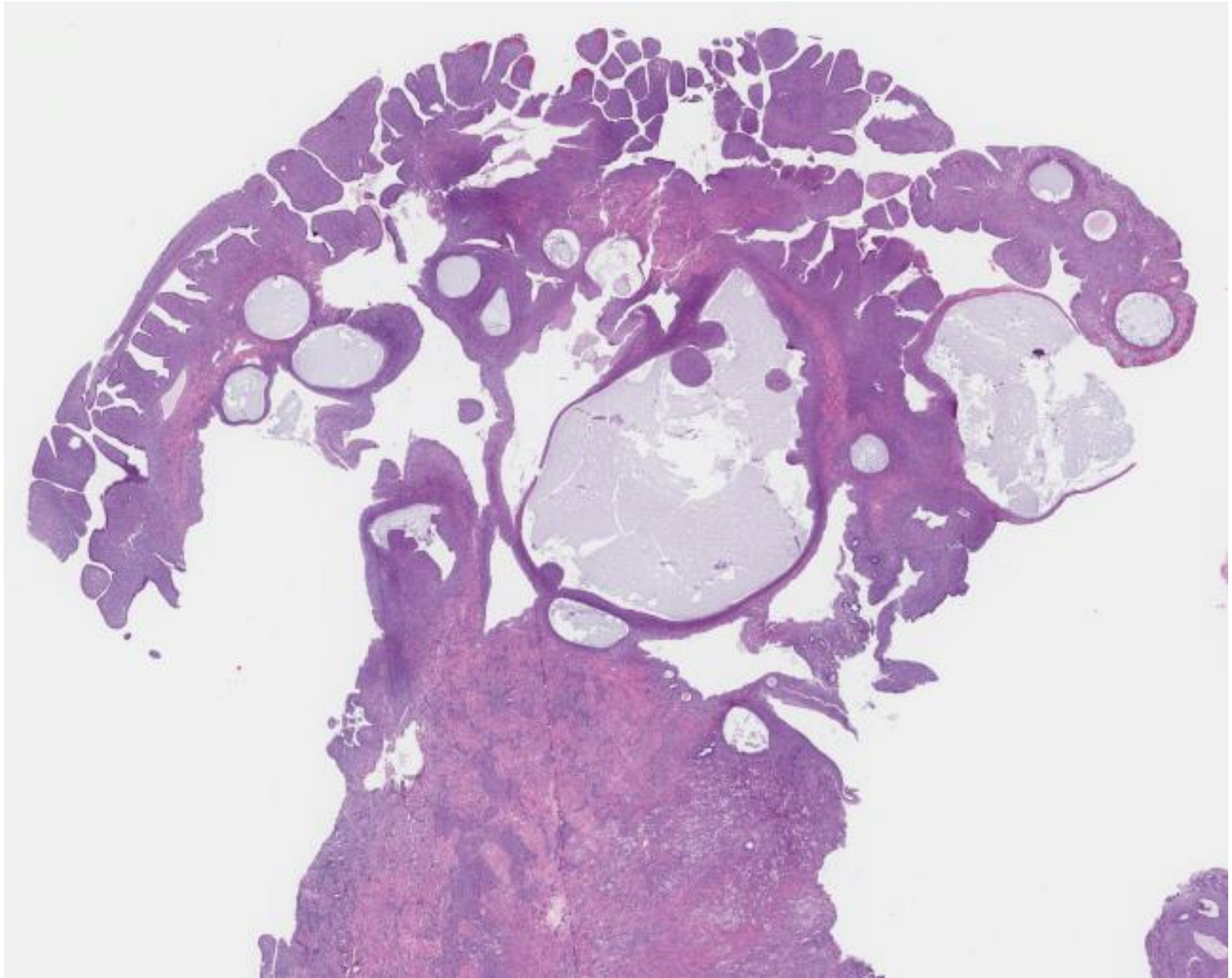
caution is advised.

Polypectomy Specimens with Concern for Adenosarcoma but Not Diagnostic





Hysterectomy: Adenosarcoma



Polypectomy Specimens with Concern for Adenosarcoma but Not Diagnostic

My personal approach

- **Confirm the entire submitted specimen has been processed for microscopic exam**

Final diagnosis:

Biphasic polypoid proliferation; see comment.

Comment:

- **Diagnosis depends on radiological correlation for residual disease**
  If no residual mass, likely a polyp with unusual features, likely benign.
  If residual mass, cannot exclude adenosarcoma.
- **Advise long term follow up**
- **Cite:** Howitt 2015 PMID: 25118811

Biopsy



Endometrial Polyp

- Variants

Cellular Polyp

Tamoxifen Polyp

Bizarre stromal cells

- Moderate to severe nuclear pleomorphism
- Nuclear enlargement
- Multinucleation
- Usually only focally present as scattered cells

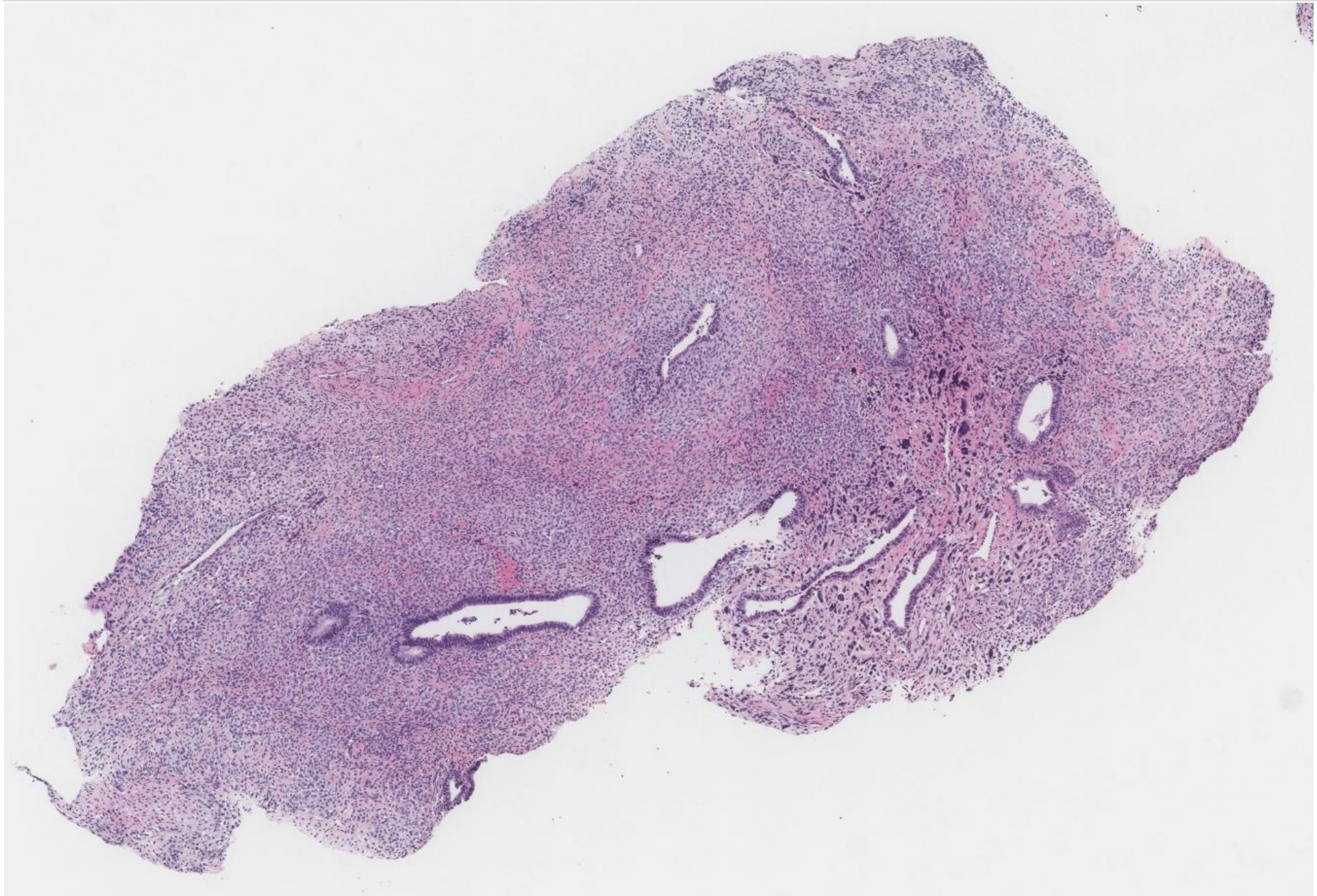
- No mitoses

- Similar to bizarre stromal cells in vulvo-vaginal fibroepithelial polyps

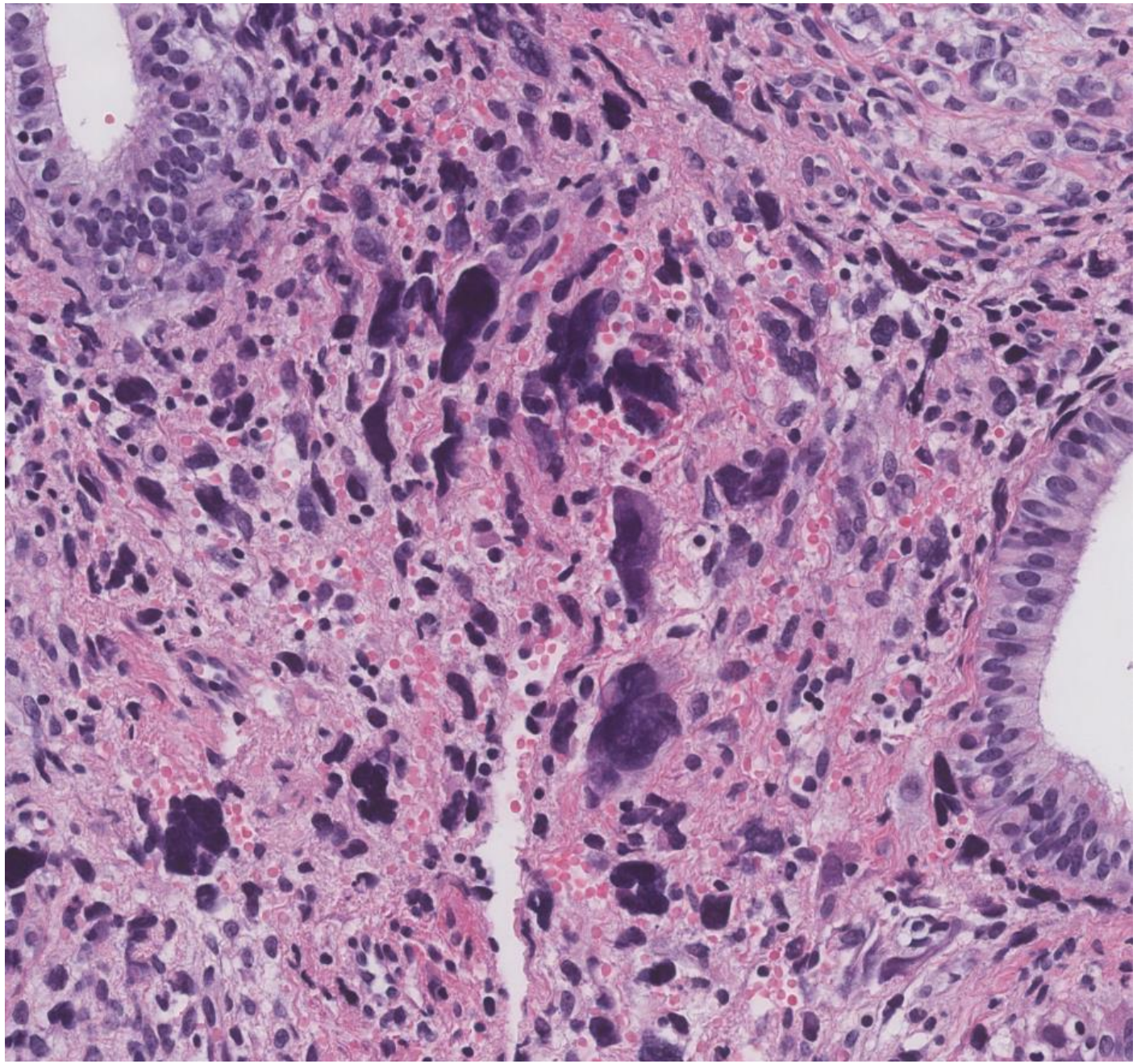
Clinical Significance: None.

Differential diagnosis:
- Adenosarcoma
- Leiomyoma with bizarre nuclei
- Atypical placental site nodule

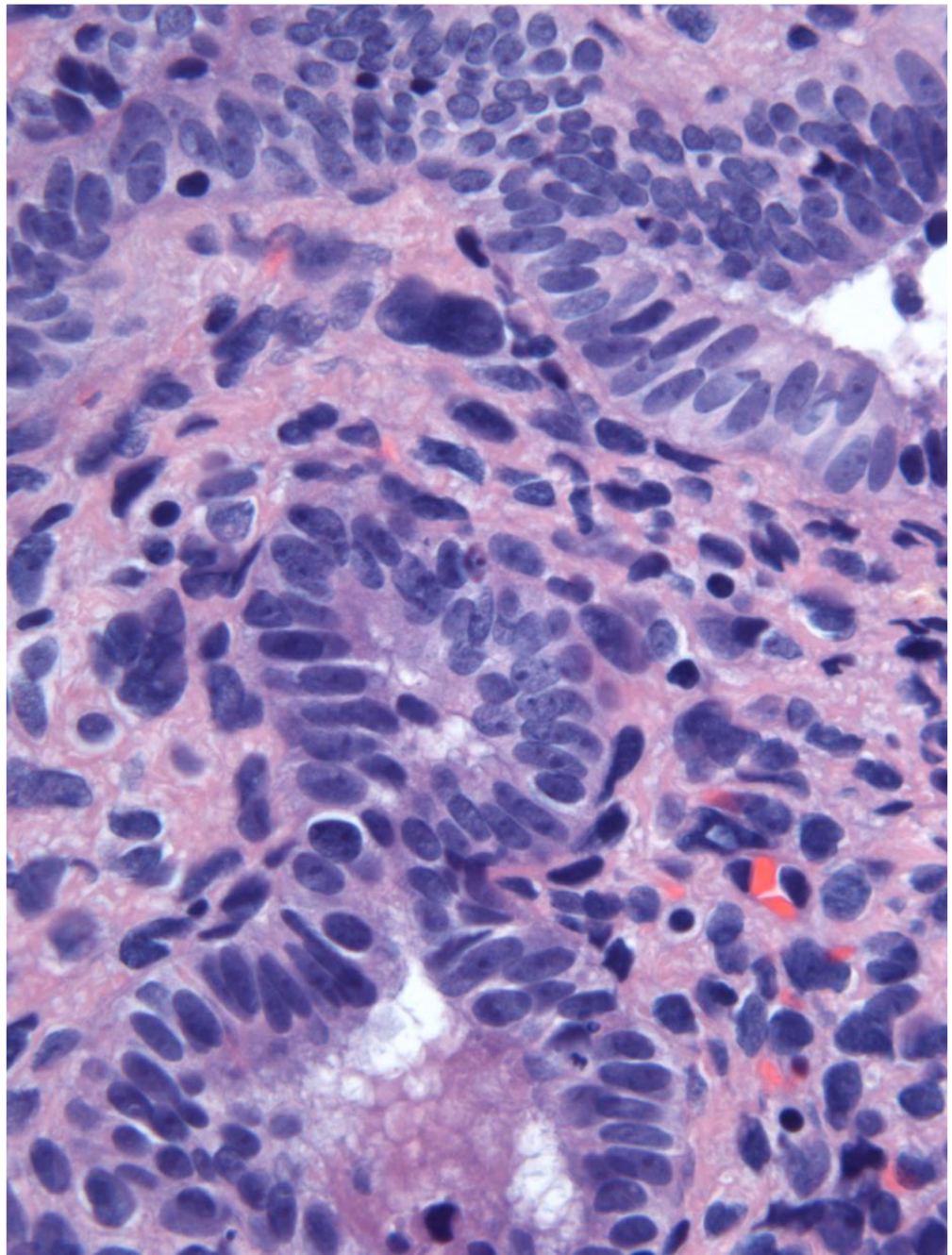
Endometrial Polyp with Bizarre Stromal Cells

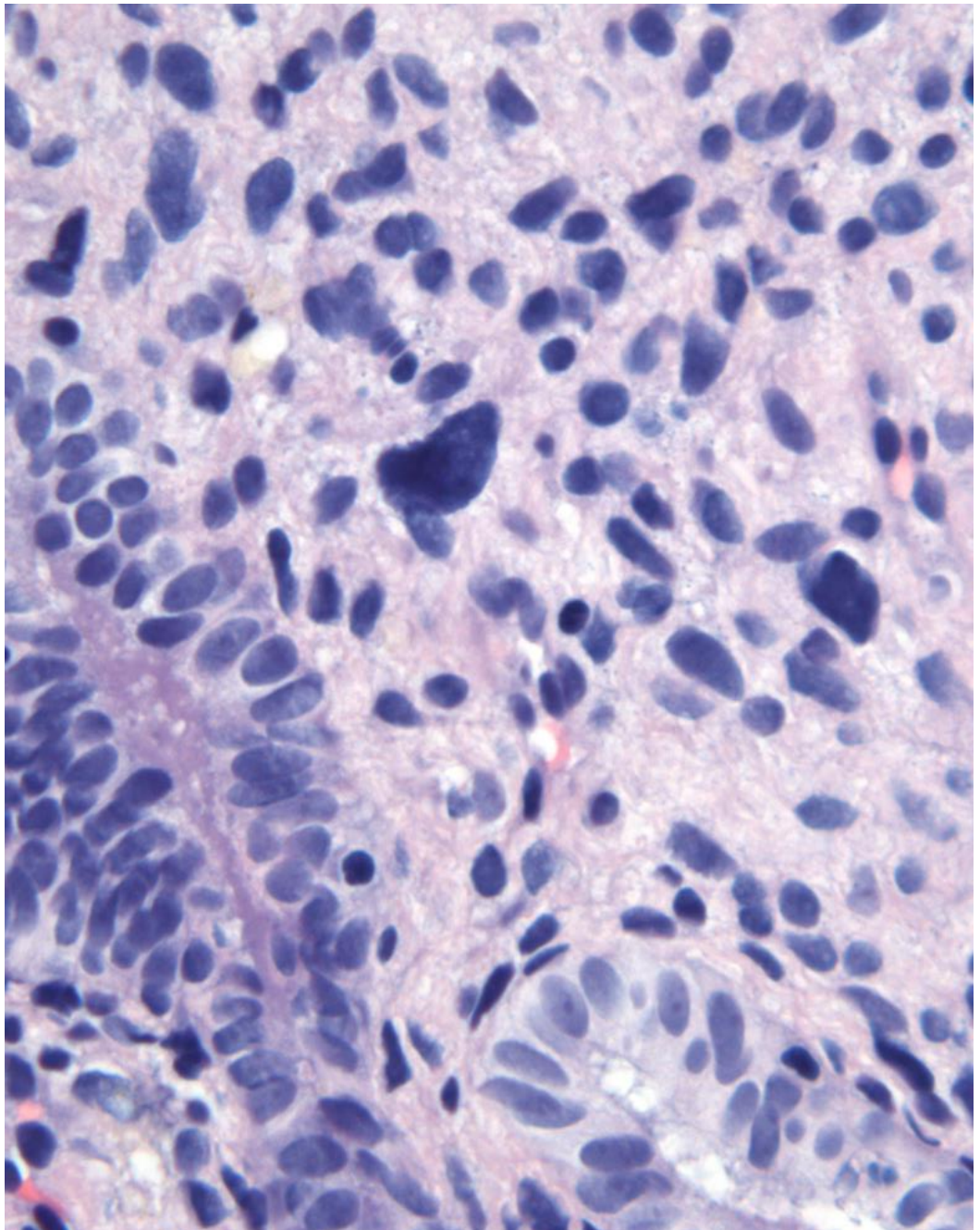


Endometrial Polyp with Bizarre Stromal Cells



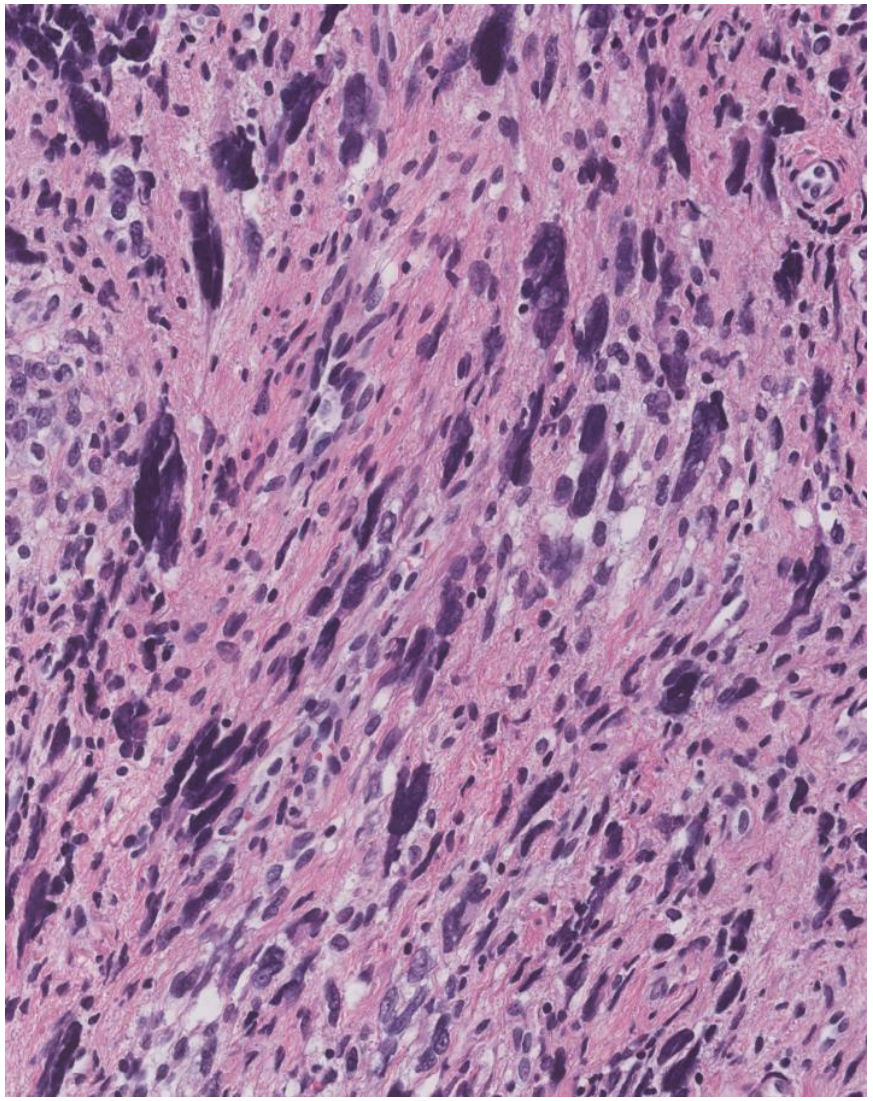
Endometrial Polyp with Bizarre Stromal Cells

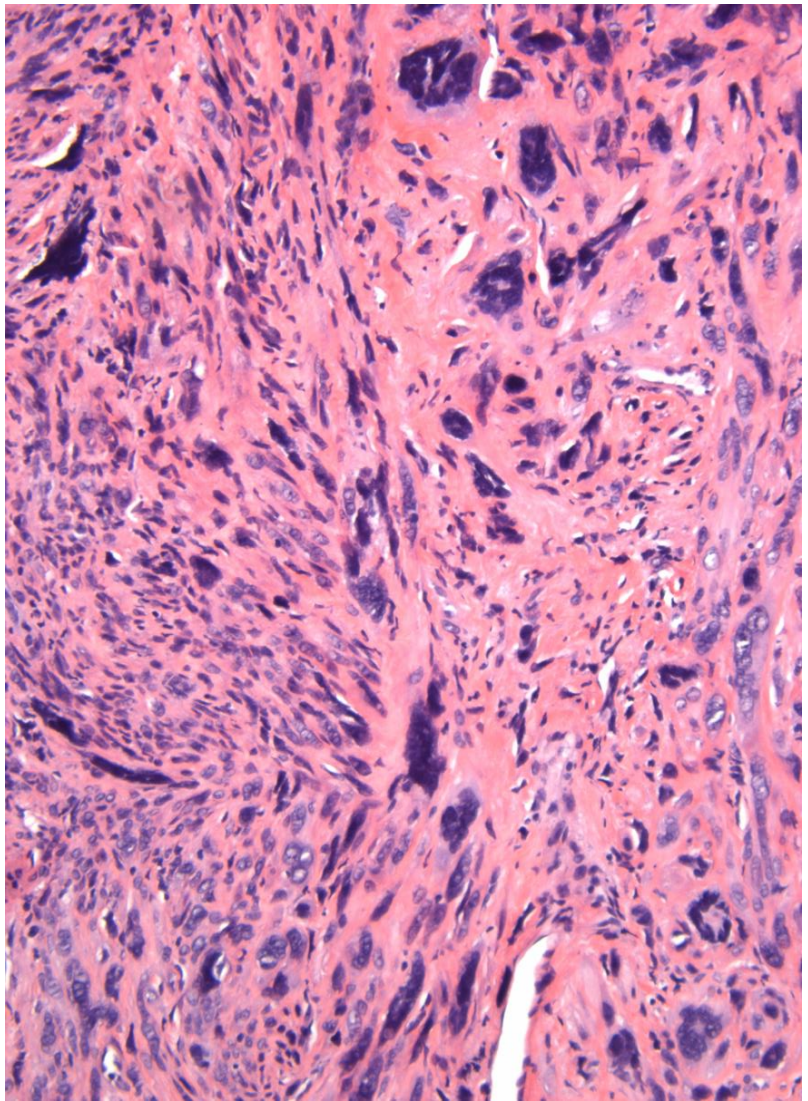




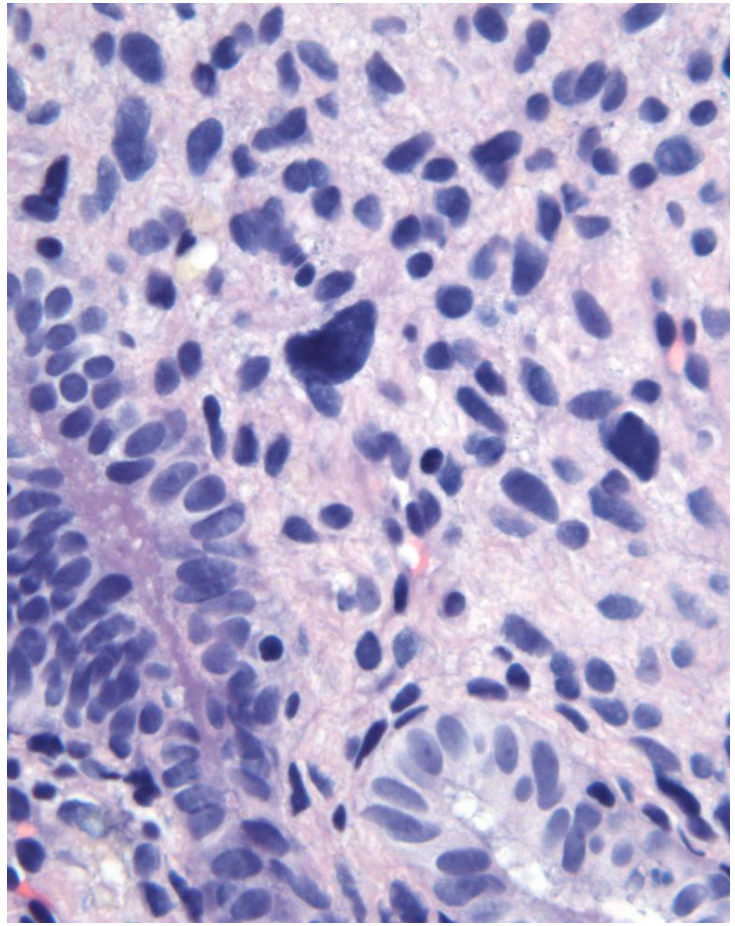
	Polyp with Bizarre Stroma	Adenosarcoma
Distribution of atypical stroma	Focal	Prominent
Mitoses in stroma	No	Yes
Periglandular stromal cuffing	No	Yes
Phyllodes-like growth	No	Yes
Intraglandular stromal projections	No	Yes
Stromal overgrowth	No	Occasionally
Heterologous elements	No	Occasionally

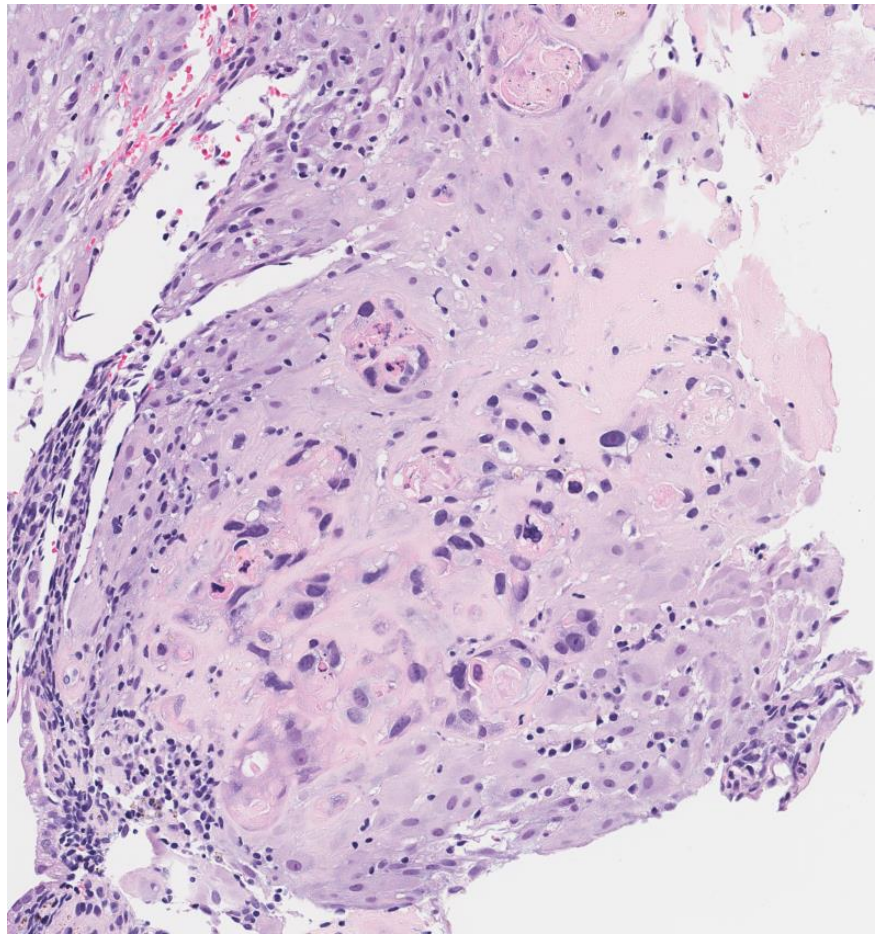
	Polyp with Bizarre Stroma	Leiomyoma with Bizarre Nuclei
Smooth muscle proliferation	**No**	**Yes**
Smooth muscle immunostain	**Negative**	**Positive**





	Polyp with Bizarre Stroma	(Atypical) Placental Site
Plaque / nodule	**No**	**Yes**
Hyaline matrix	**No**	**Yes**
Trophoblast immunostain (GATA3, keratin)	**Negative**	**Positive**





Endometrial Polyp

- Variants

Cellular Polyp

Tamoxifen Polyp

Bizarre stromal cells

Colonization by papillary proliferation of endometrium

“Biphasic” endometrial lesions

- Benign
  - Endometrial polyp
- Malignant / malignant potential
  - Adenosarcoma
  - **Atypical polypoid adenomyoma**
  - Carcinosarcoma
- Differential diagnosis
  - Corded and hyalinized endometrioid carcinoma
  - Dedifferentiated endometrial carcinoma
  - Endometrioid carcinoma with spindled features

Atypical Polypoid Adenomyoma (APA)

Definition (5th W.H.O.)

Atypical endometrial glandular proliferation within polypoid (fibro)myomatous stroma

Presentation:

- **Mostly in reproductive age women**
- **Lower uterine segment polyp**

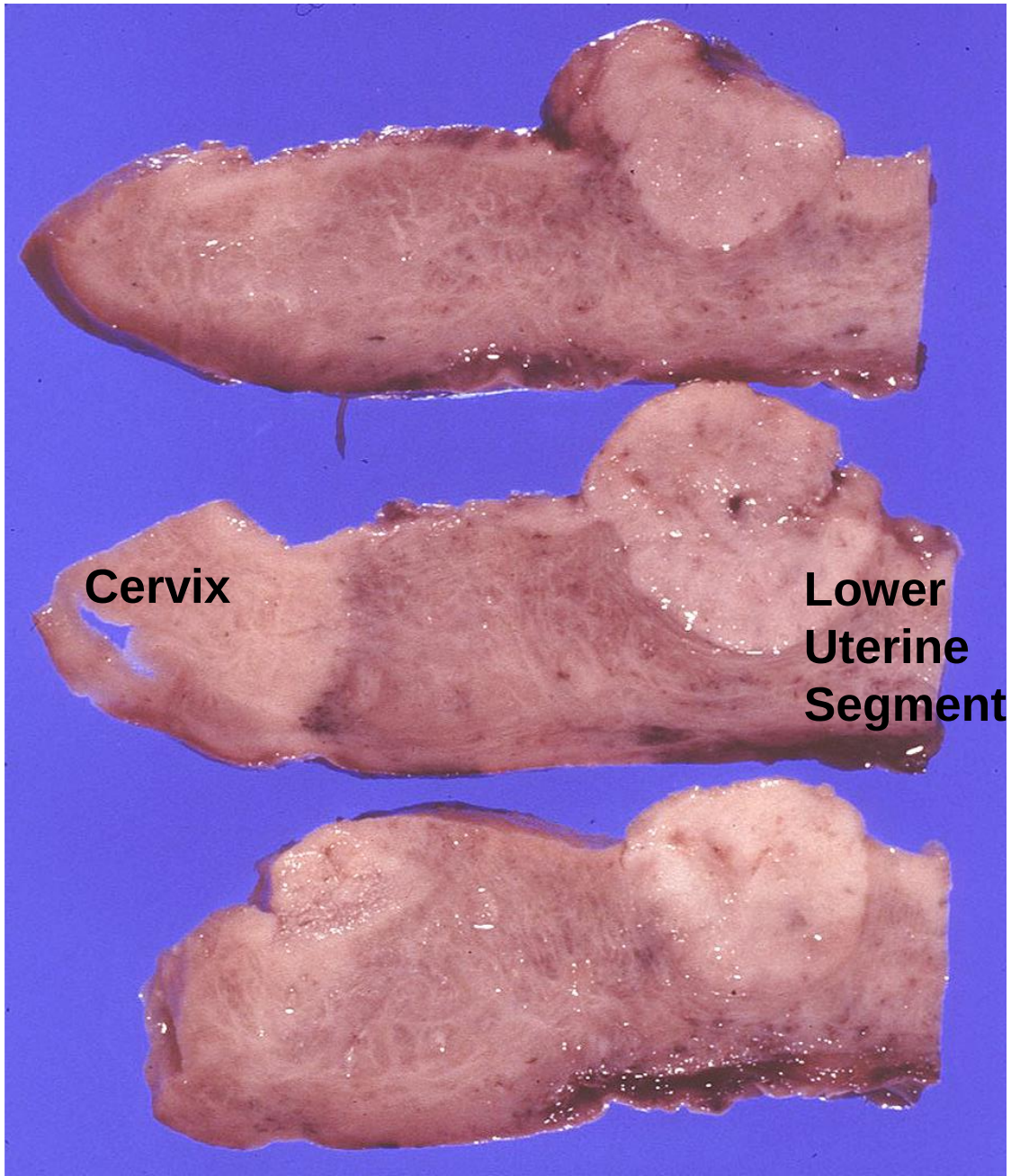
Glandular component:

- **Cytologically atypical complex endometrial glands**
  akin to atypical hyperplasia
  some may contain grade 1 endometrioid carcinoma
- **Morules are common**

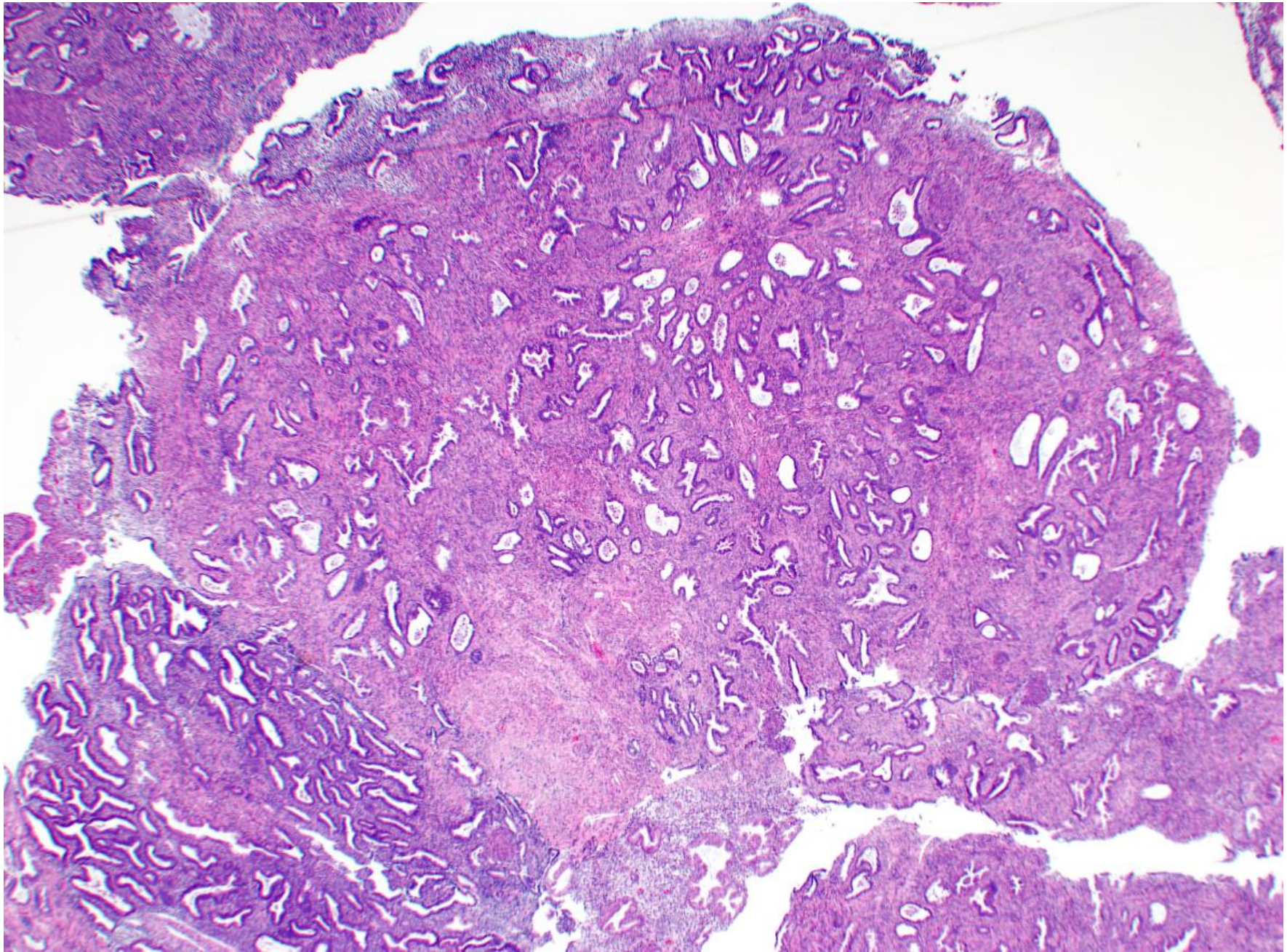
Stromal component:

- **Myomatous (benign)**
- **+/- fibro-myomatous**

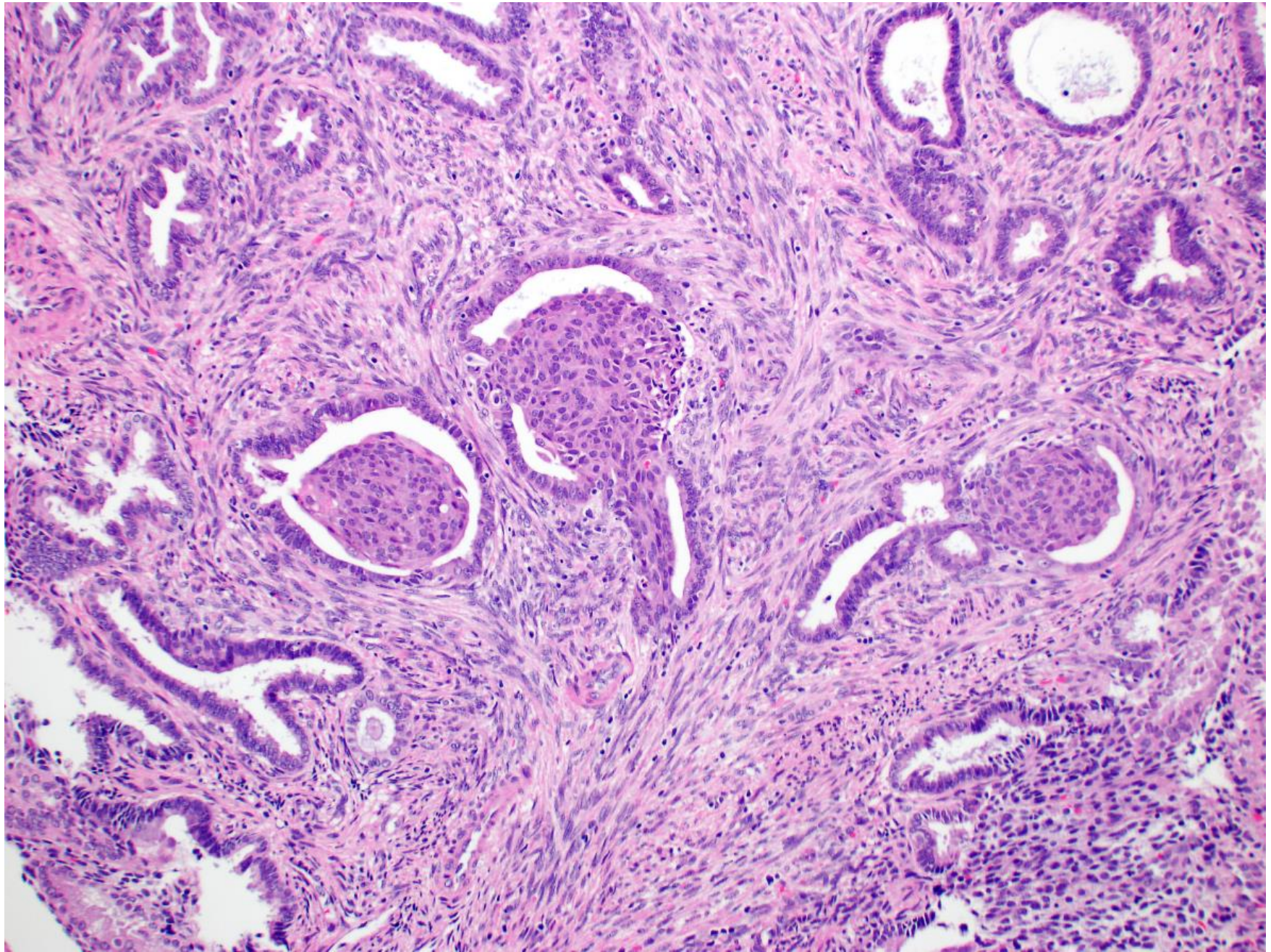
Atypical Polypoid Adenomyoma (APA)



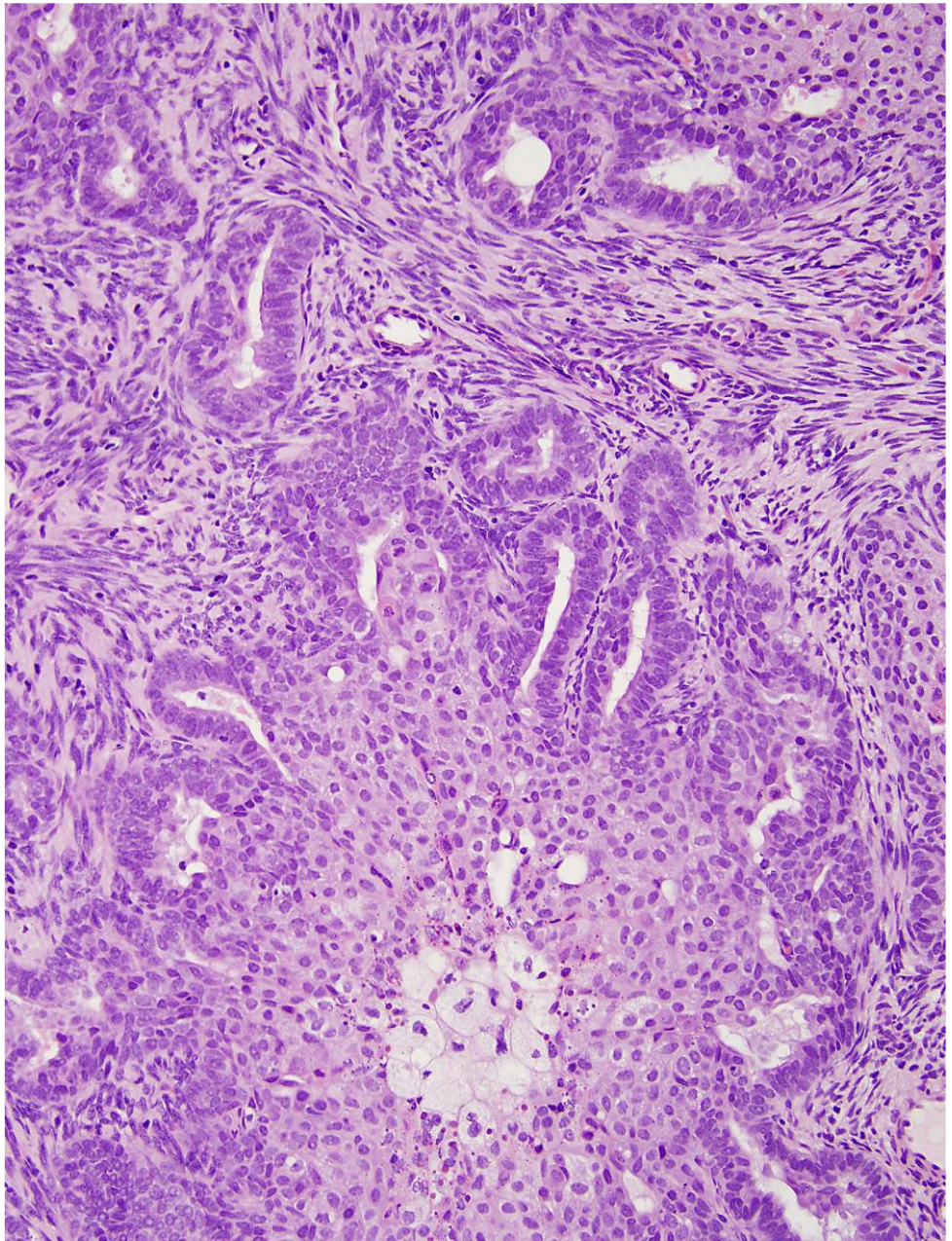
Atypical Polypoid Adenomyoma (APA)



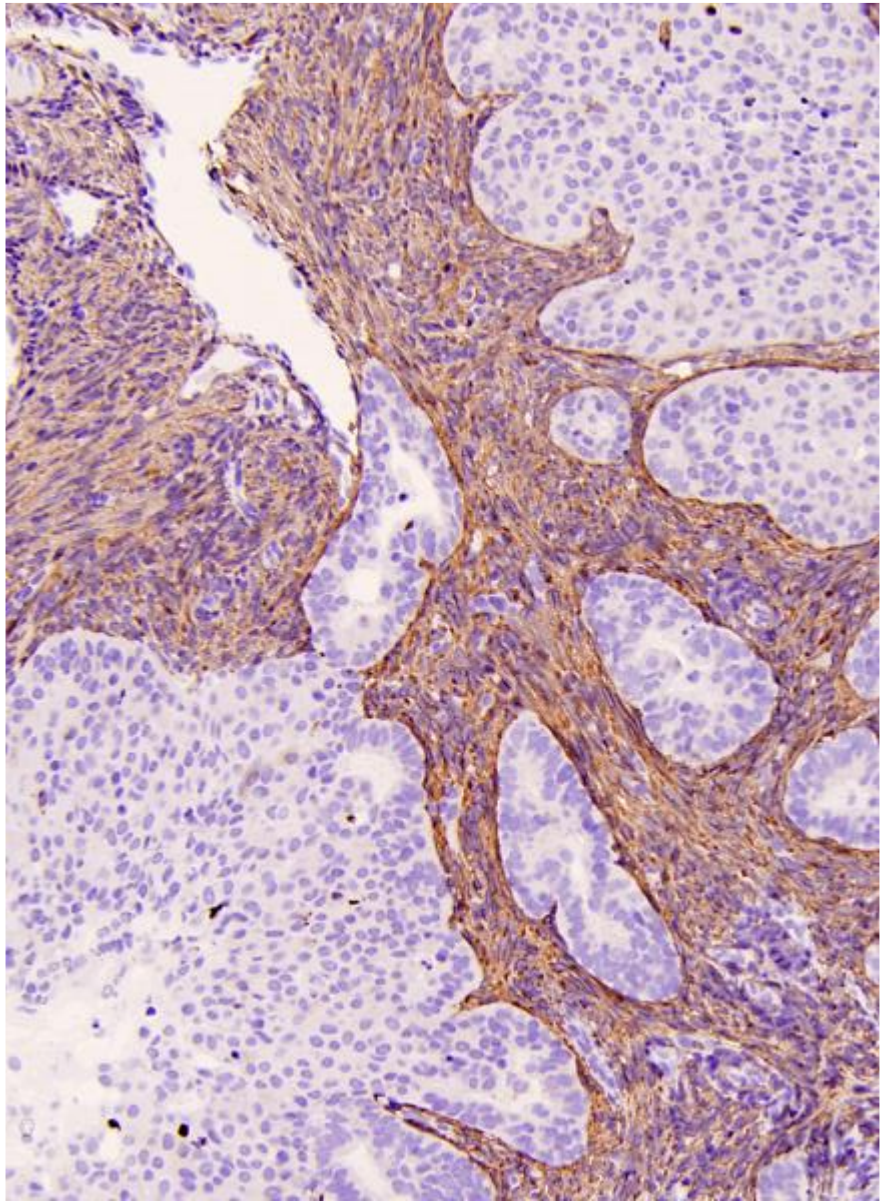
Atypical Polypoid Adenomyoma (APA)



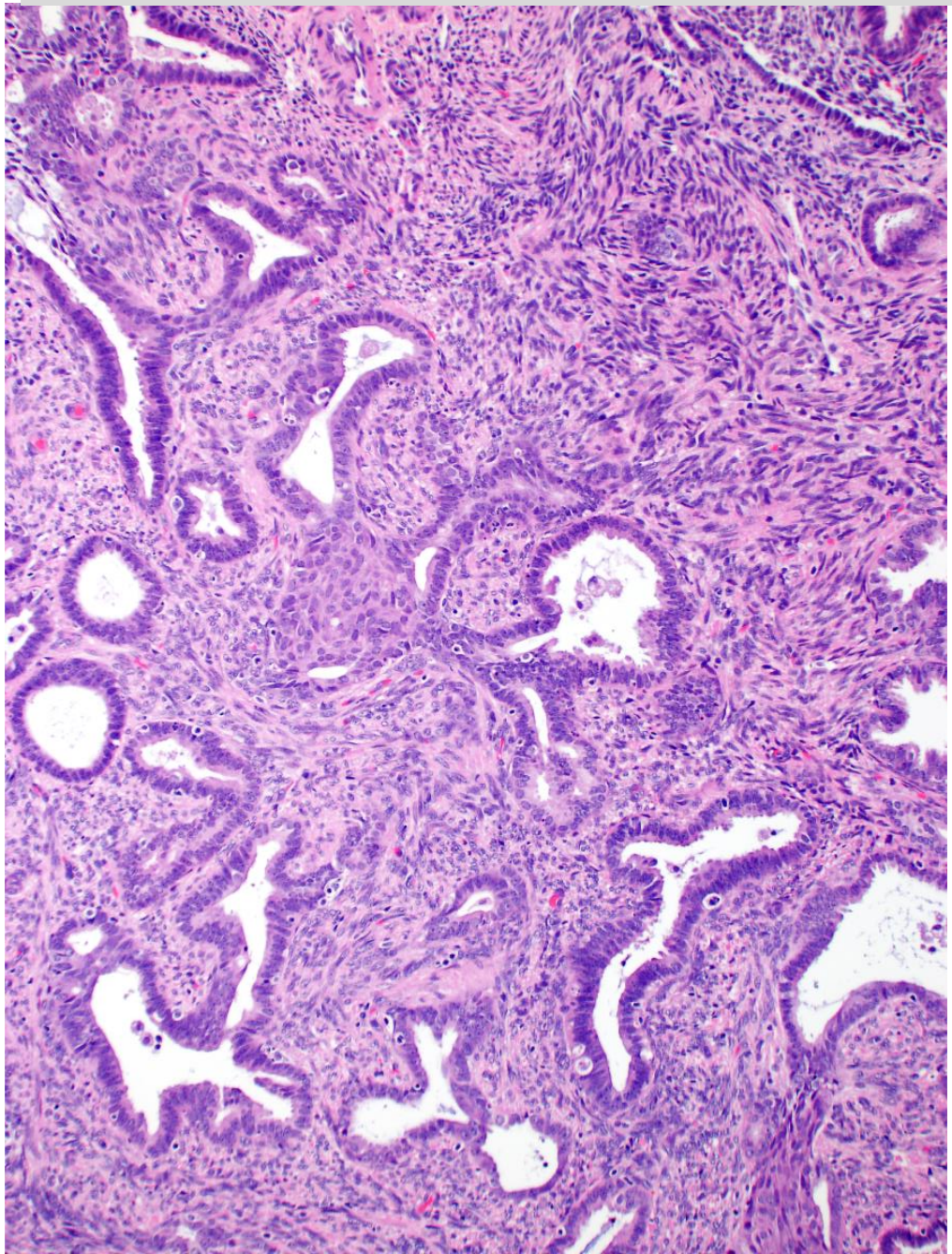
Atypical Polypoid Adenomyoma (APA)

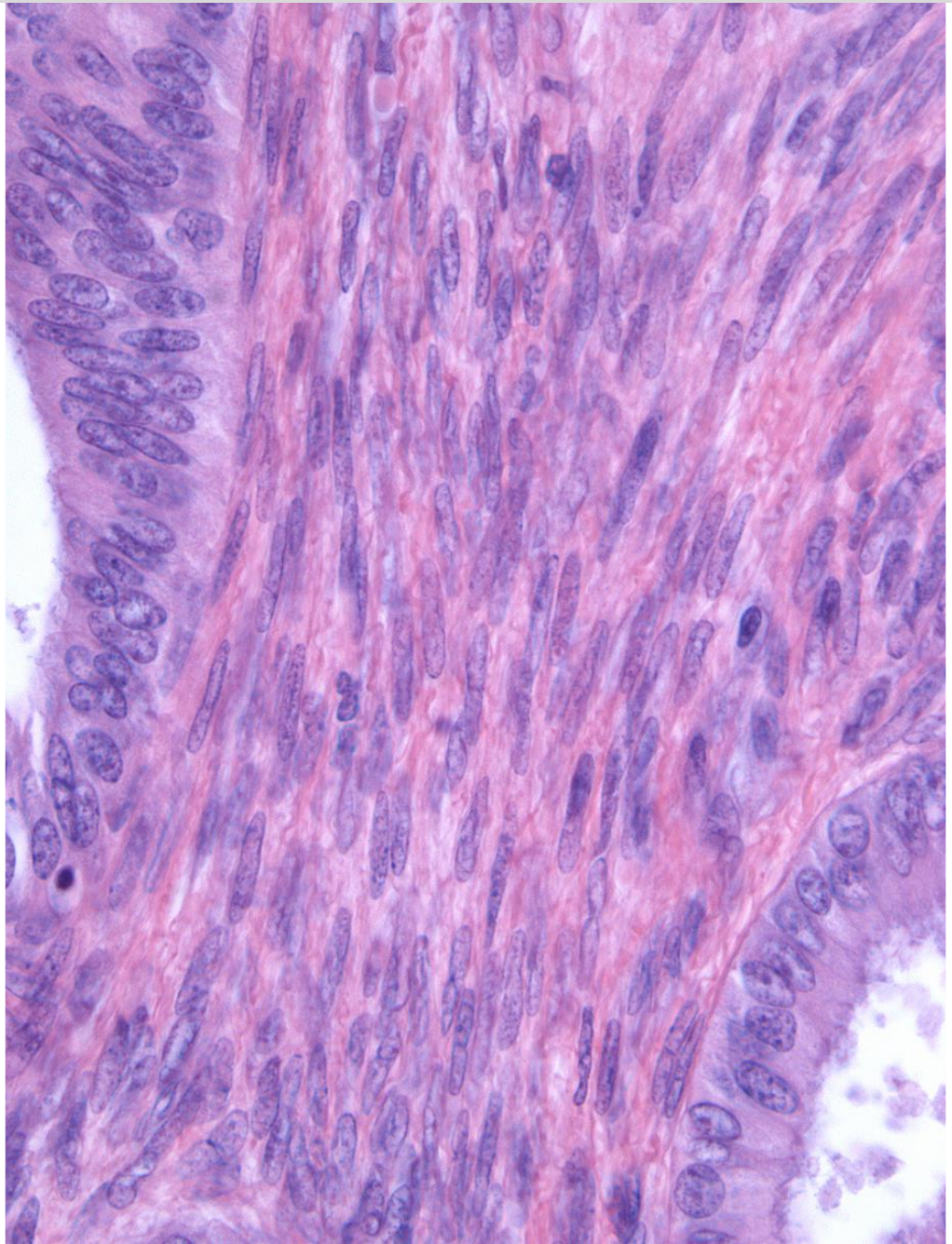


Desmin

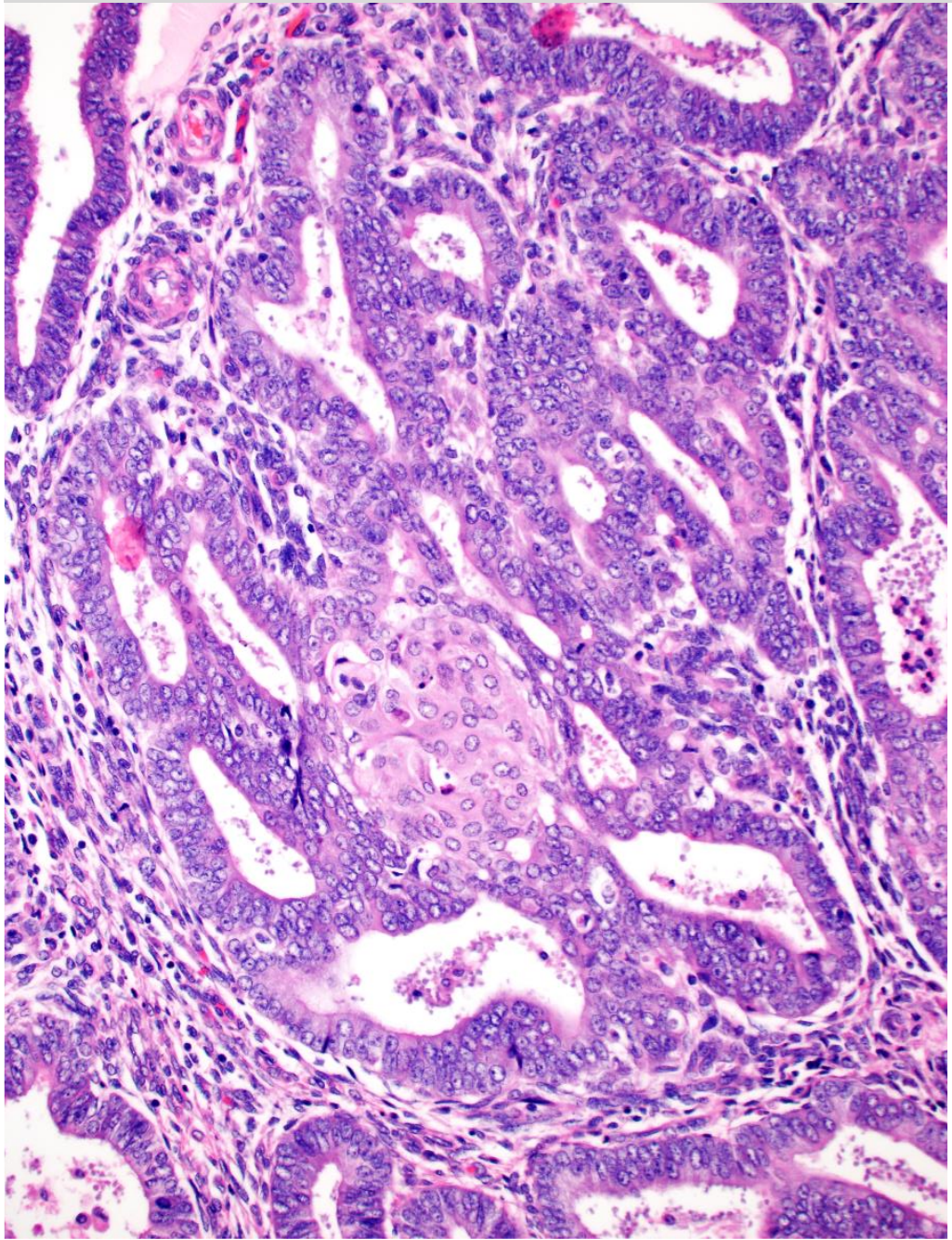


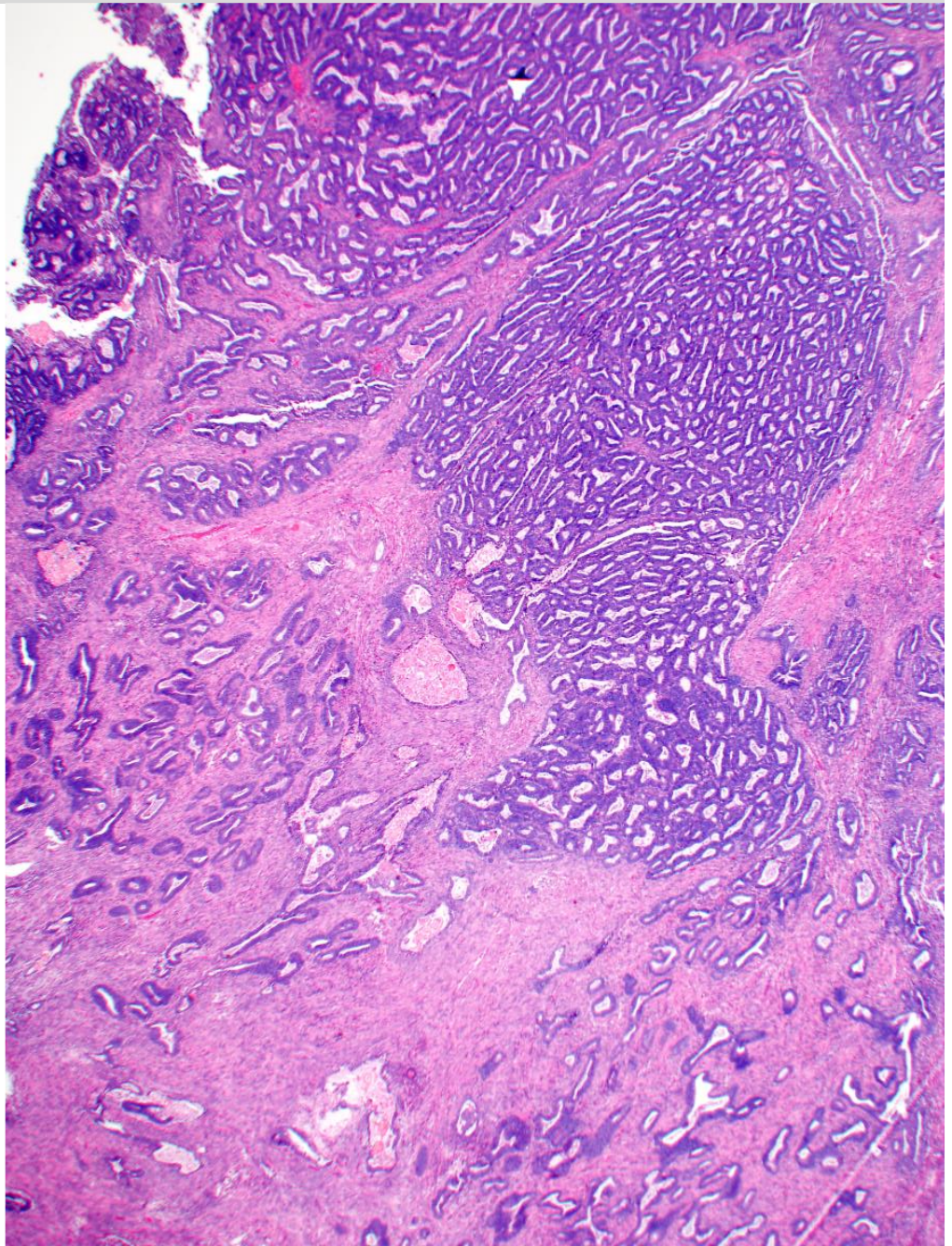
Atypical Polypoid Adenomyoma (APA)





Atypical Polypoid Adenomyoma (APA)





Atypical Polypoid Adenomyoma (APA)

Definition (5th W.H.O.)

Clinical significance if fertility-sparing management is performed:

- **~45% local recurrence**
  successful pregnancy is possible
- **~9% progression to low grade, low stage endometrial cancer**

Atypical Polypoid Adenomyoma (APA)

Challenges for diagnosis in biopsy/polypectomy

1. How to exclude unsampled area of cancer in APA ?

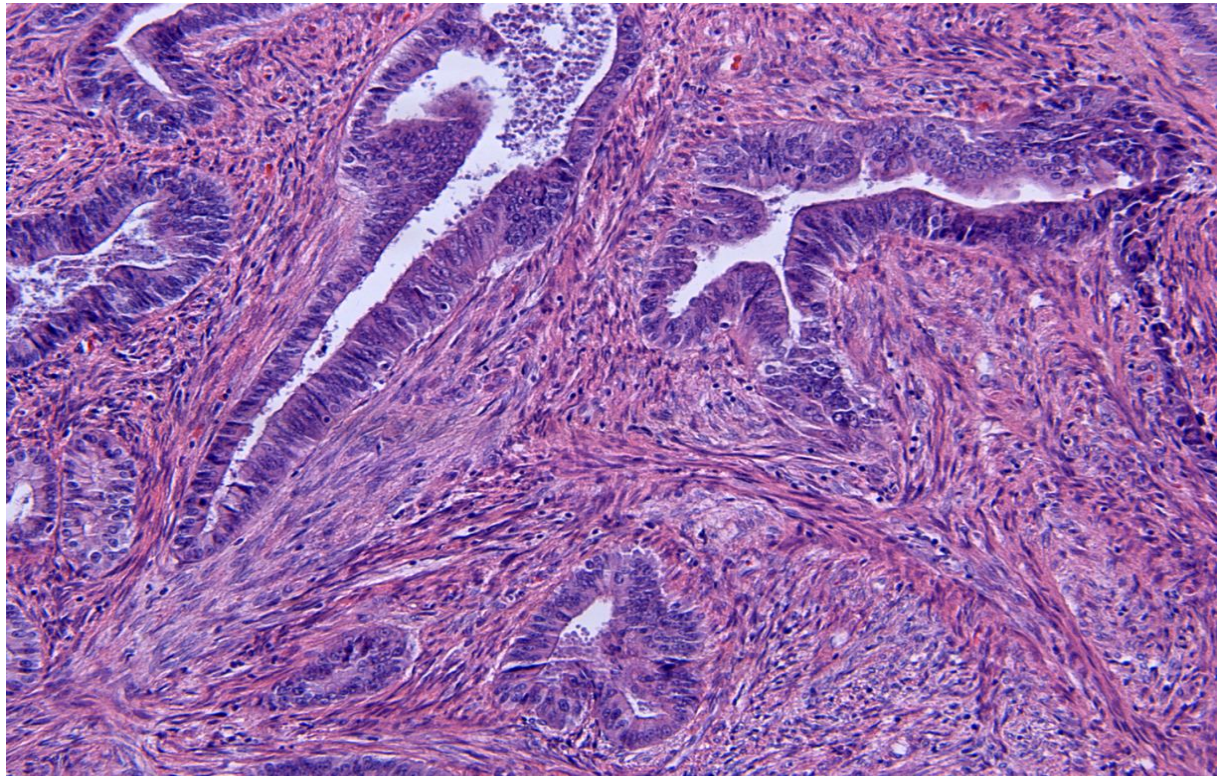
- Not possible based on pathology alone
- Radiologic correlation advised to rule out unsampled mass

Atypical Polypoid Adenomyoma (APA)

Challenges for diagnosis in biopsy/polypectomy

1. How to exclude unsampled area of cancer in APA ?

2. How to distinguish from myoinvasive carcinoma ?



Atypical Polypoid Adenomyoma (APA)

Challenges for diagnosis in biopsy/polypectomy

1. How to exclude unsampled area of cancer in APA ?

2. **How to distinguish from myoinvasive carcinoma ?**

- **Not possible based on biopsy / polypectomy alone**
- **Even though it is unlikely that a polypectomy/curettage would capture the myoinvasive component of cancer, caution is merited**

Atypical Polypoid Adenomyoma (APA)

Challenges for diagnosis in biopsy/polypectomy

My personal approach:

- **<u>Final diagnosis</u>:** **Features suggestive of APA; see comment**
- **<u>Comment</u>:** **Radiological correlation for unsampled lesion is advised to rule out unsampled cancer or myoinvasive cancer**

Outline of Talk

- Biphasic lesions
- **Spindled lesions**

Spindled Lesions (*other than obvious high grade tumors*)

Challenges in hysteroscopic myomectomy specimens

- **Leiomyoma with bizarre nuclei versus leiomyosarcoma**

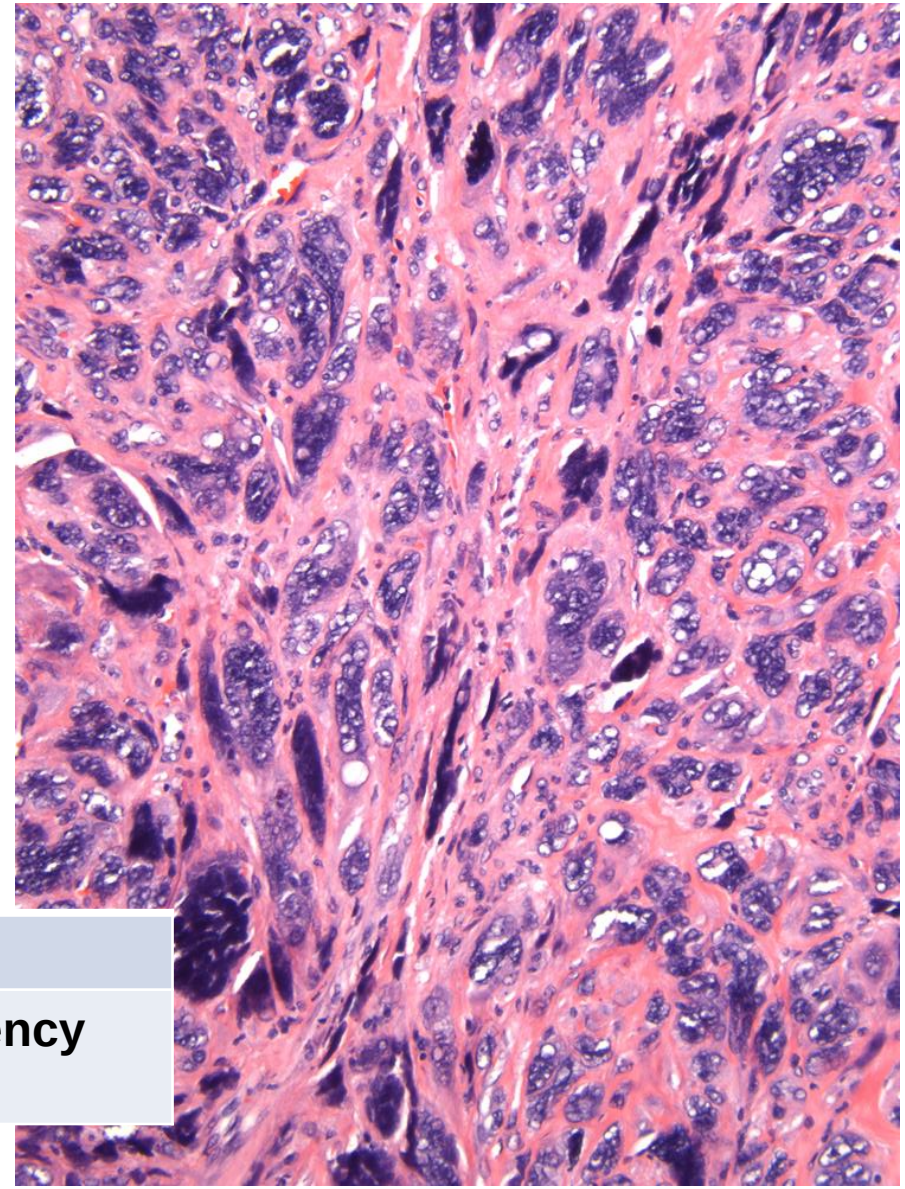
- **Under-recognition of uterine inflammatory myofibroblastic tumor**

Leiomyoma with bizarre nuclei

Definition (5th W.H.O.)

- **Leiomyoma with:**

Bizarre nuclei Enlarged, irregular Hyperchromatic +/- vesicular chromatin +/- multinucleated +/- macronucleoli
Mitoses: 0 to < 5 / 10 hpf
No necrosis



- **Clinical significance:**

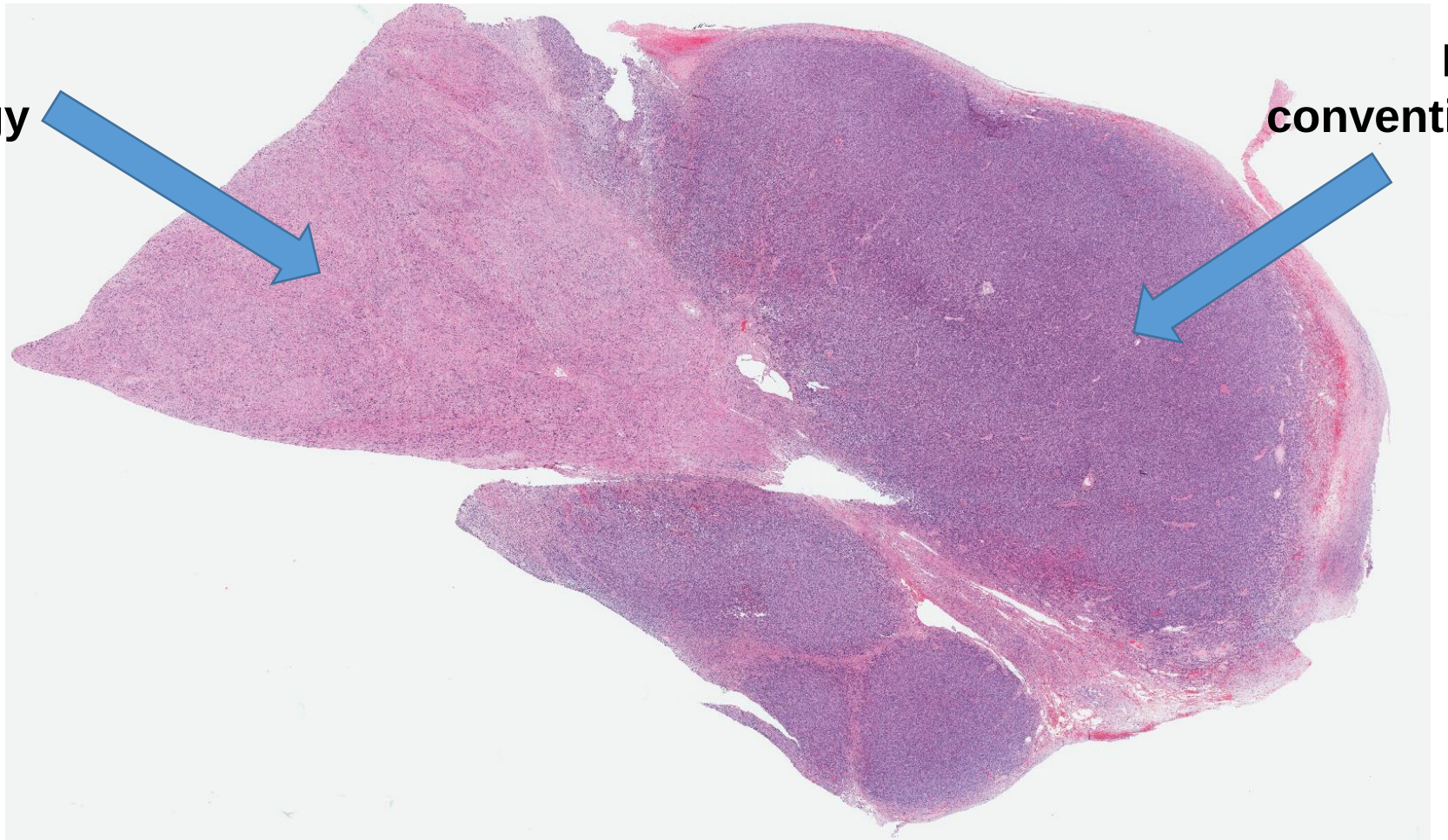
Very low risk for recurrence
High risk for fumarate hydratase deficiency *(HLRCC syndrome)*

Leiomyoma with bizarre nuclei

Challenges in hysteroscopic myomectomy specimens

How to exclude an undersampled leiomyosarcoma ?

LBN-like morphology

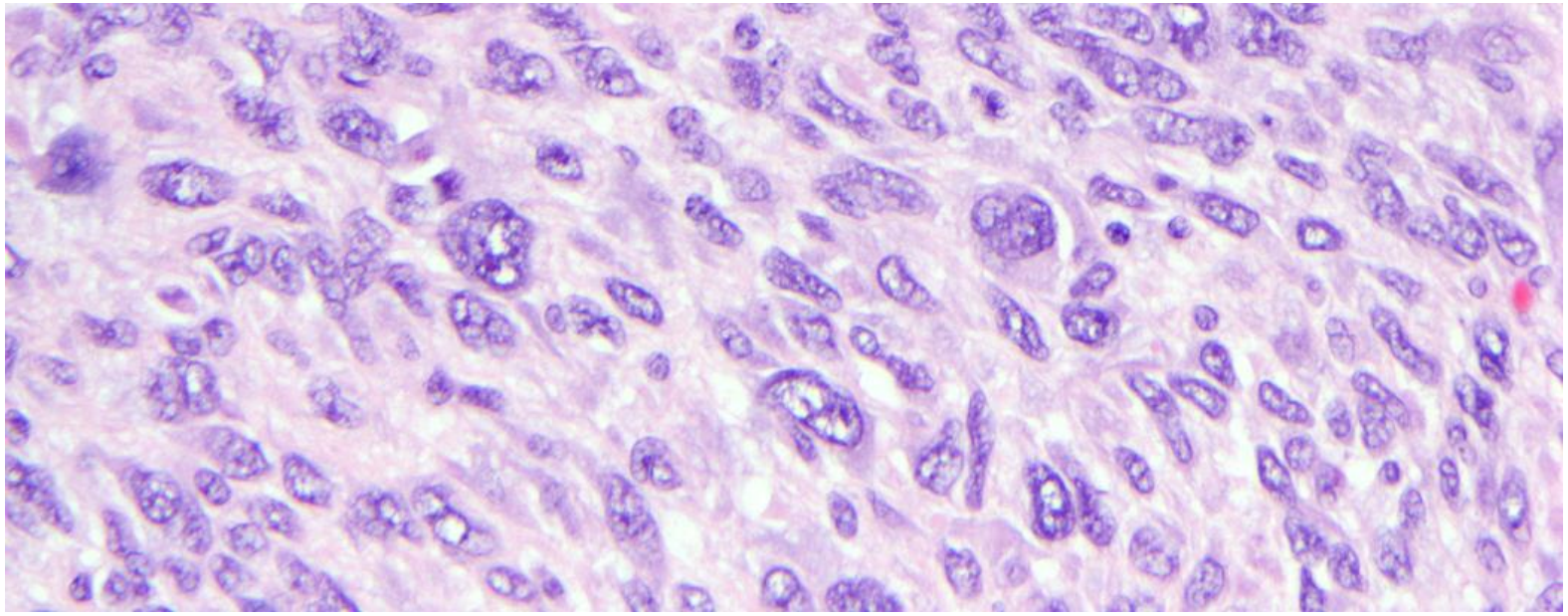


Leiomyosarcoma conventional morphology

Leiomyoma with bizarre nuclei

Challenges in hysteroscopic myomectomy specimens

How to exclude an undersampled leiomyosarcoma ?



No / low mitoses
No tumor necrosis

Leiomyoma with bizarre nuclei

Challenges in hysteroscopic myomectomy specimens

My personal approach:

- **Confirm that entire specimen has been submitted**
- **Evaluate for morphologic features of fumarate hydratase deficiency**

- **<u>Final diagnosis</u>: Smooth muscle tumor with bizarre nuclei; see comment.**

- **<u>Comment</u>:**
  1. **Clinical correlation advised to exclude unsampled sarcoma.**
     otherwise findings are of leiomyoma with bizarre nuclei.
  2. **Very small risk of local recurrence.**

Ly et al. Am J Surg Pathol 2013;37:643–649
Croce et al. Am J Surg Pathol 2014;38:1330–1339
Kefeli et al. Int J Gynecol Pathol. 2018; 37:379-387
Downes et al. Am J Surg Pathol, 1997; 21: 1261-70

  3. **If FH-deficient morphology is present, advise genetic counseling to rule out hereditary leiomyomatosis renal cell carcinoma syndrome**

Spindled Lesions (*other than obvious high grade tumors*)

Challenges in hysteroscopic myomectomy specimens

- Leiomyoma with bizarre nuclei versus leiomyosarcoma

- **Under-recognition of uterine inflammatory myofibroblastic tumor**

Uterine Inflammatory Myofibroblastic Tumor

Definition (5th W.H.O.)

- **Myxoid and fascicular myofibroblastic tumor with inflammatory infiltrate**
- **Nearly all uterine IMT harbor *ALK* rearrangement**

Clinical significance:

A minority carry malignant potential
***ALK* targeted therapies are available**

Diagnostic challenge:

May resemble
Leiomyoma with myxoid change
Myxoid leiomyosarcoma
Fibromyxoid endometrial stromal sarcoma

Uterine Inflammatory Myofibroblastic Tumor

Likely an Under-Recognized Tumor

Retrospective review using ALK staining of:	Under-diagnosed IMT
Leiomyoma	**Up to 0.3%**
Myxoid leiomyosarcoma	**Up to 13%**
STUMP	**Up to 9 %**

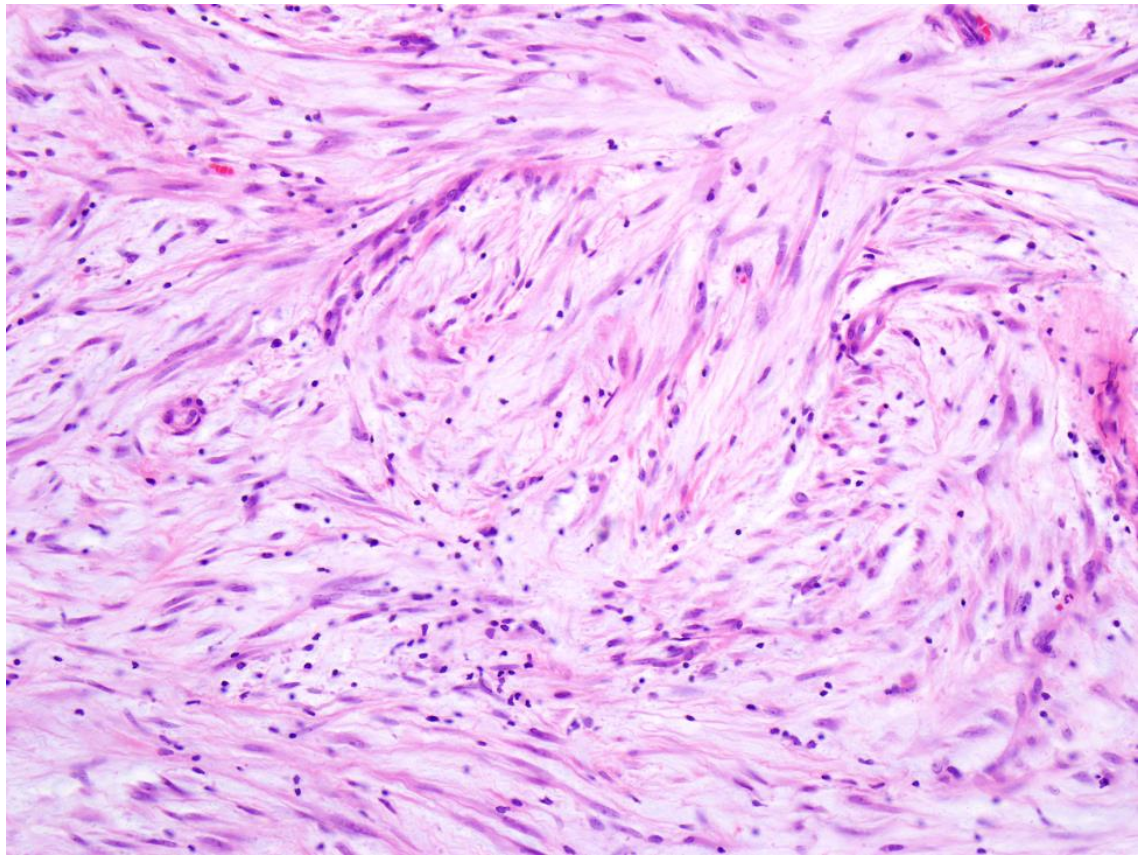
Haimes et al. Am. J. Surg. Pathol. 2017; 41: 773-780
Pickett et al. Am. J. Surg. Pathol. 2017; 41: 1433-1442
Parra-Herran et al. Am. J. Surg. Pathol. 2015; 39: 157-168
Parra-Herran et al. Am. J. Surg. Pathol. 2016; 40: 285-301
Devereaux et al. Am. J. Surg. Pathol. 2019; 43: 64-74
Subbiah et al. J. Hem. Oncol. 2015; 8: 66
Ptakova et al. Virch. Archiv. 2018; 473: 588-590

Uterine Inflammatory Myofibroblastic Tumor

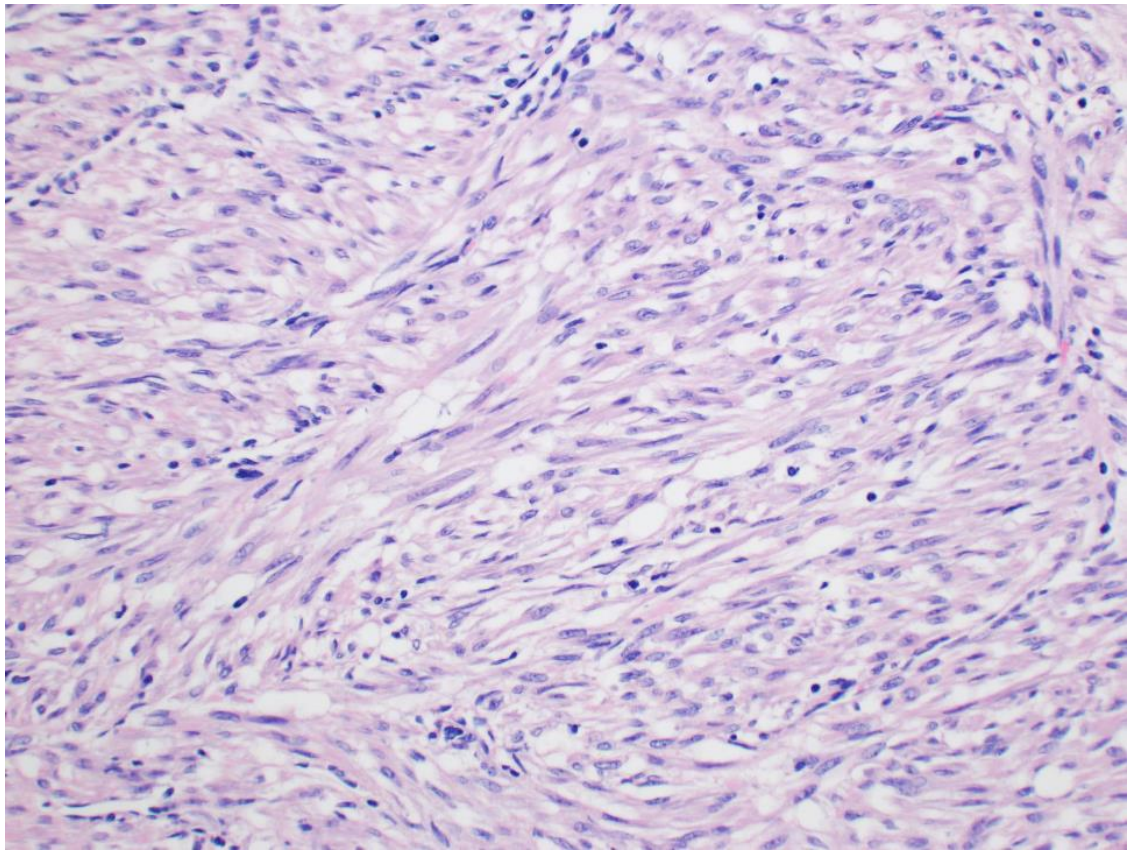
2 Main Architectural Patterns

- Both present in almost all cases
- Relative amount of each varies

Hypocellular myxoid pattern

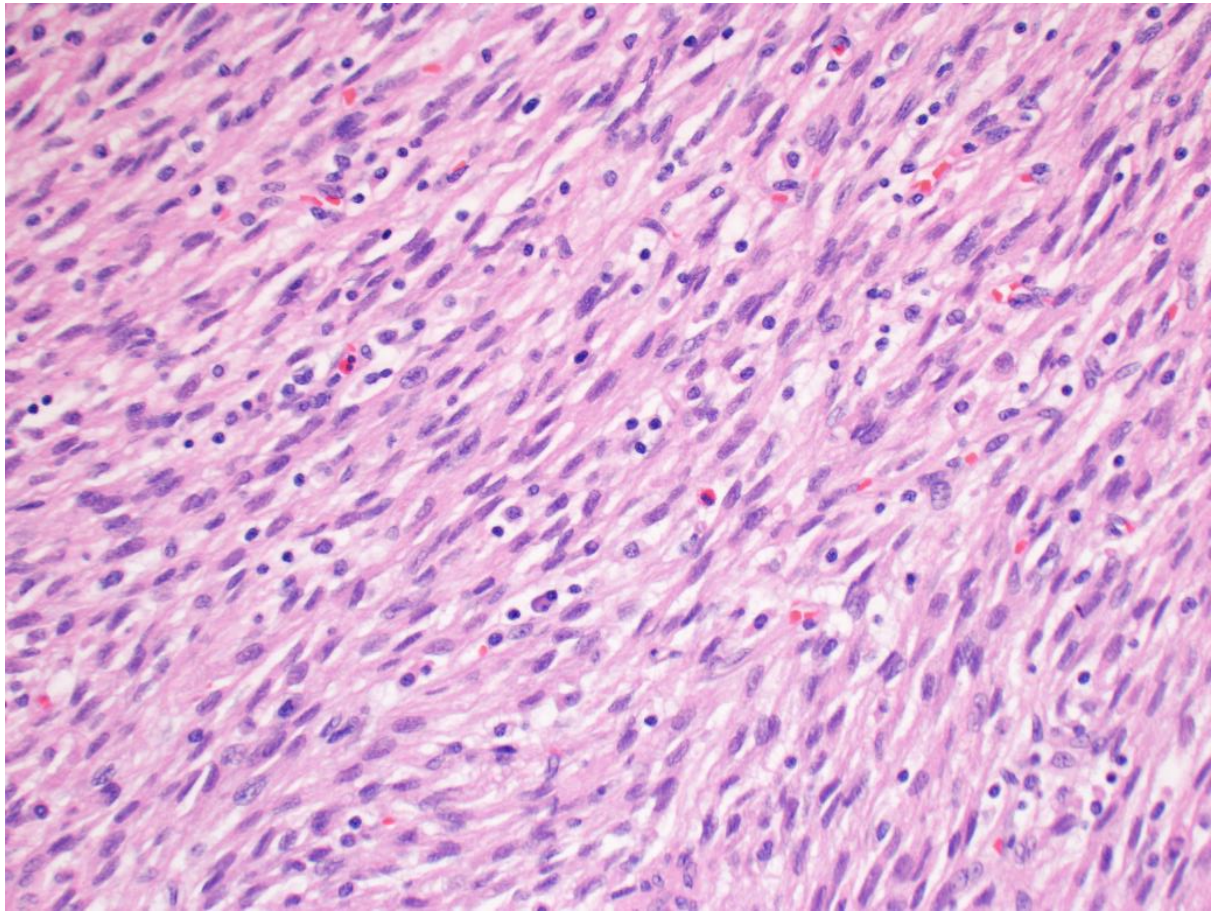


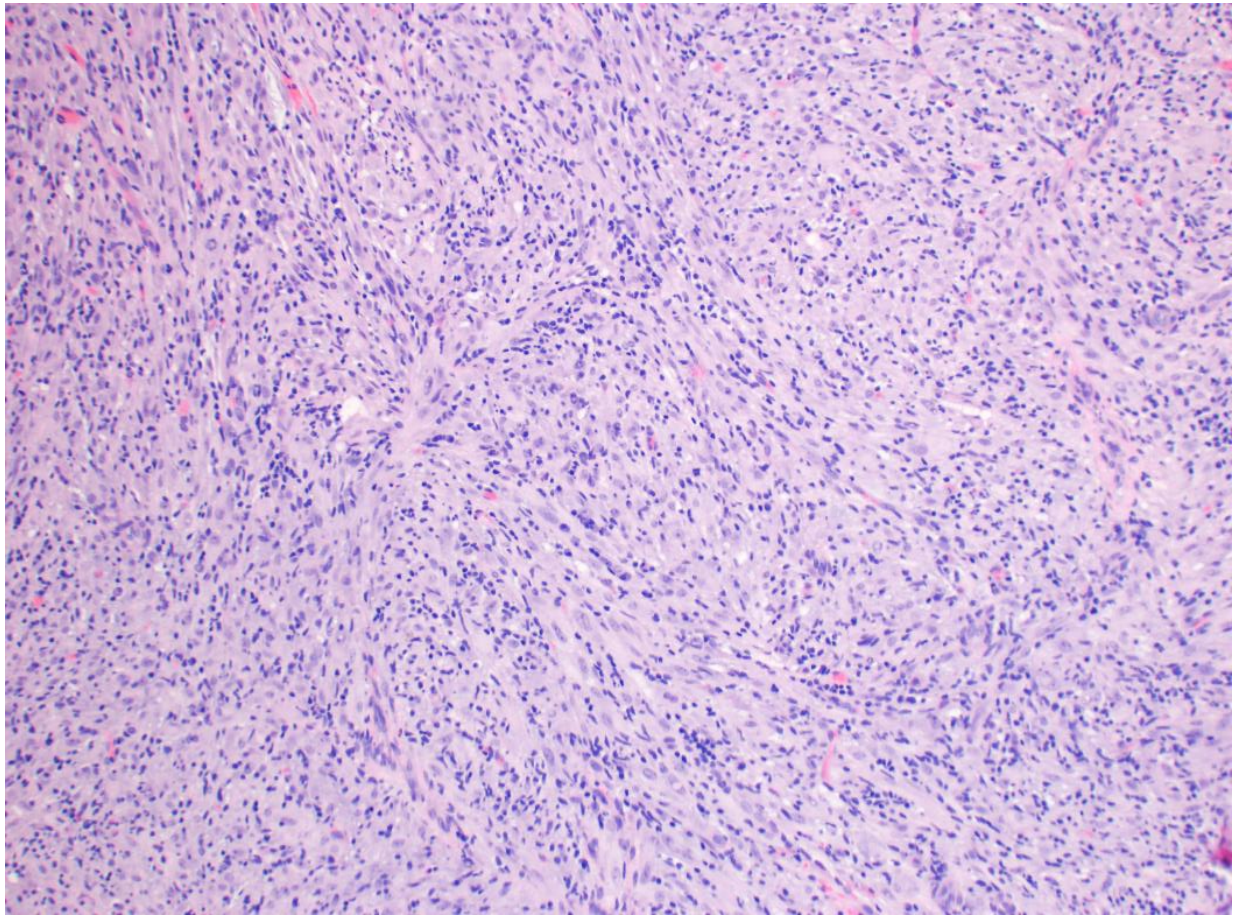
Compact fascicular pattern



Uterine Inflammatory Myofibroblastic Tumor

Lymphoplasmacytic infiltrate may be variable





Uterine IMT is an *ALK* Receptor Tyrosine Kinase Fusion Driven Tumor

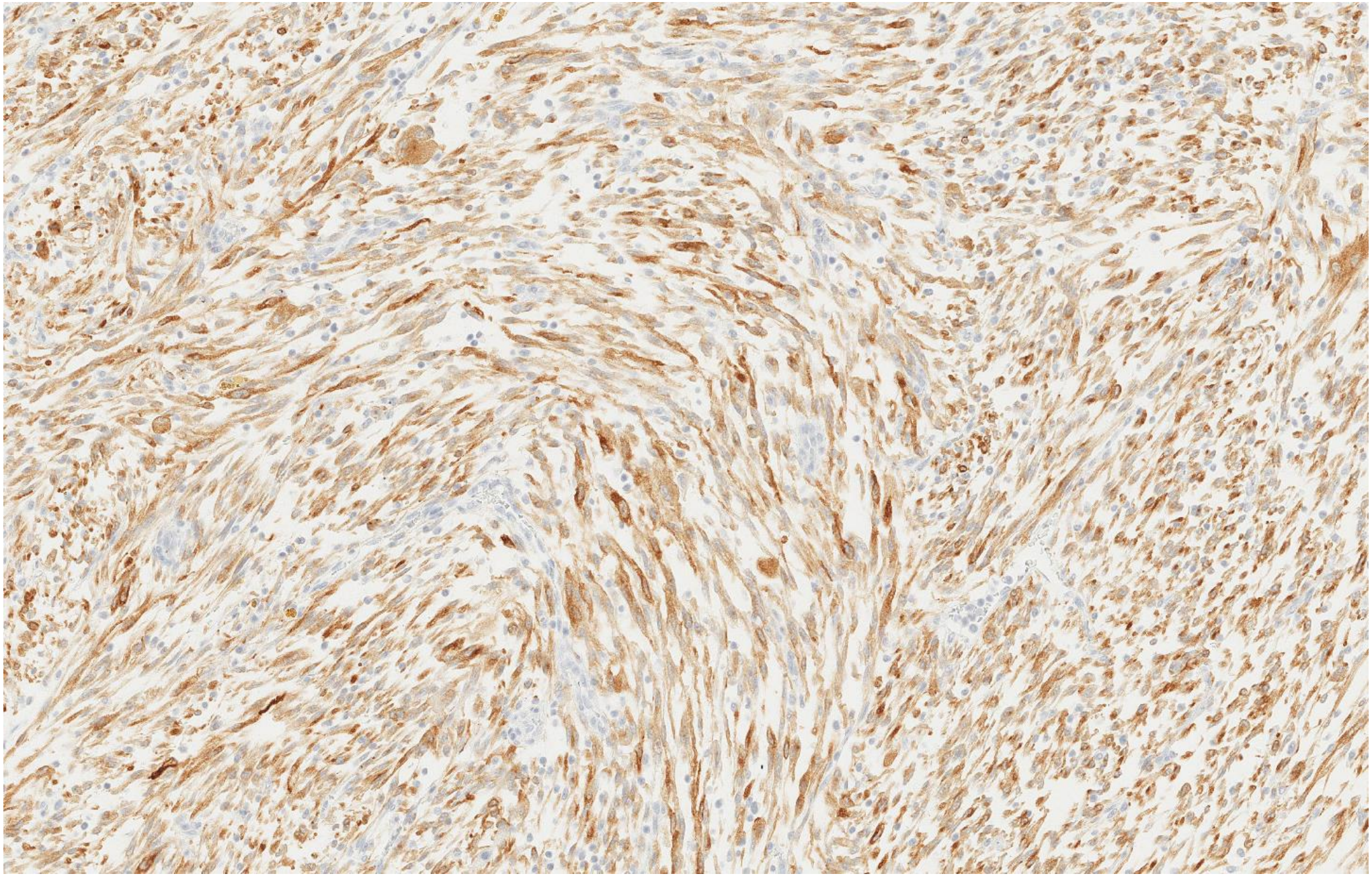
Tests to detect *ALK* fusion:

- **FISH** break apart probe
- **RNA sequencing** for fusion
- **Immunostaining** to detect fusion protein: sensitivity & specificity is very high

	ALK Staining Pattern
Distribution	Mostly: **Diffuse**
Intensity	Mostly: **Strong**
	Fascicular pattern areas may show lesser staining than myxoid areas
Pattern	Mostly: **Granular cytoplasmic**
	+/- **para-nuclear accentuation**

Rabban et al, AJSP 2005; 29: 1348-1355
Mohammad et al, AJSP 2018; 42:1353-1359
Parra-Herran et al. Am. J. Surg. Pathol. 2016; 40: 285-301

Uterine Inflammatory Myofibroblastic Tumor: ALK immunostain



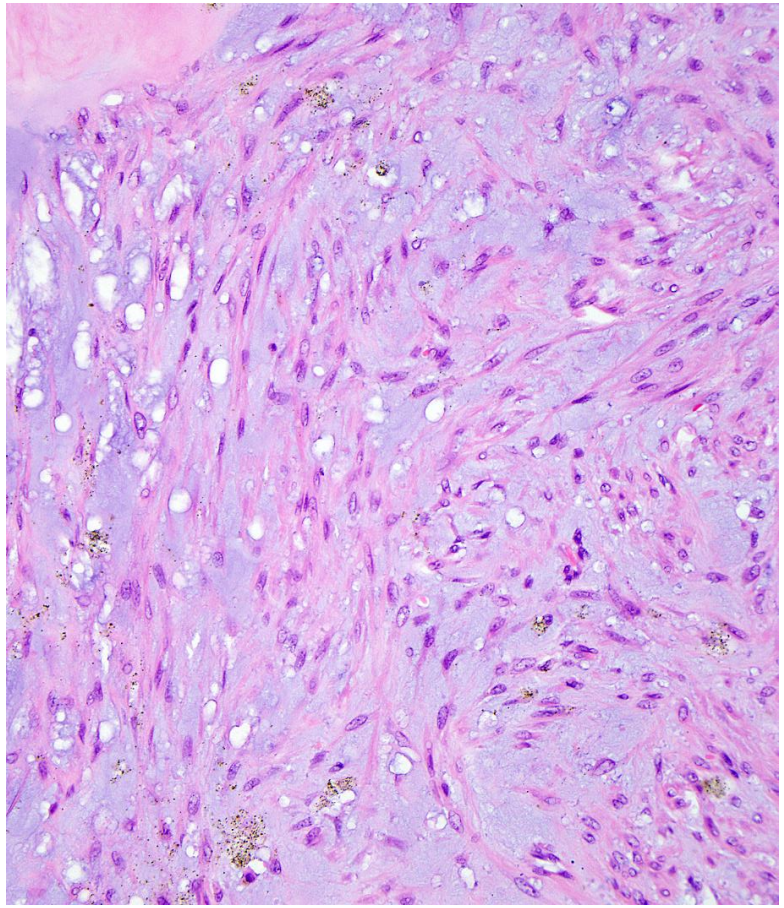
Uterine Inflammatory Myofibroblastic Tumor

A Low Threshold for Ordering ALK Immunostaining is Advised

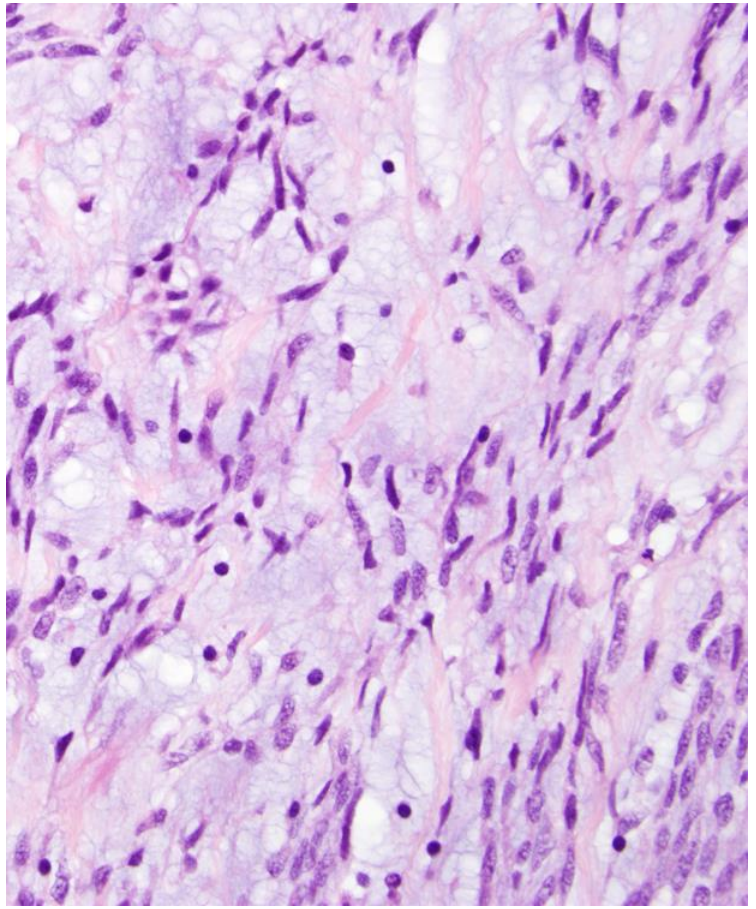
Preliminary Morphologic Impression: Order ALK
▪ **Any myxoid uterine mesenchymal tumor** (benign or malignant appearing)
▪ **Any leiomyoma with notable inflammatory infiltrate**
▪ **Any uterine STUMP** (regardless of whether myxoid/inflammatory or not)
▪ **Any leiomyoma during pregnancy**

Mimics of Uterine Inflammatory Myofibroblastic Tumor

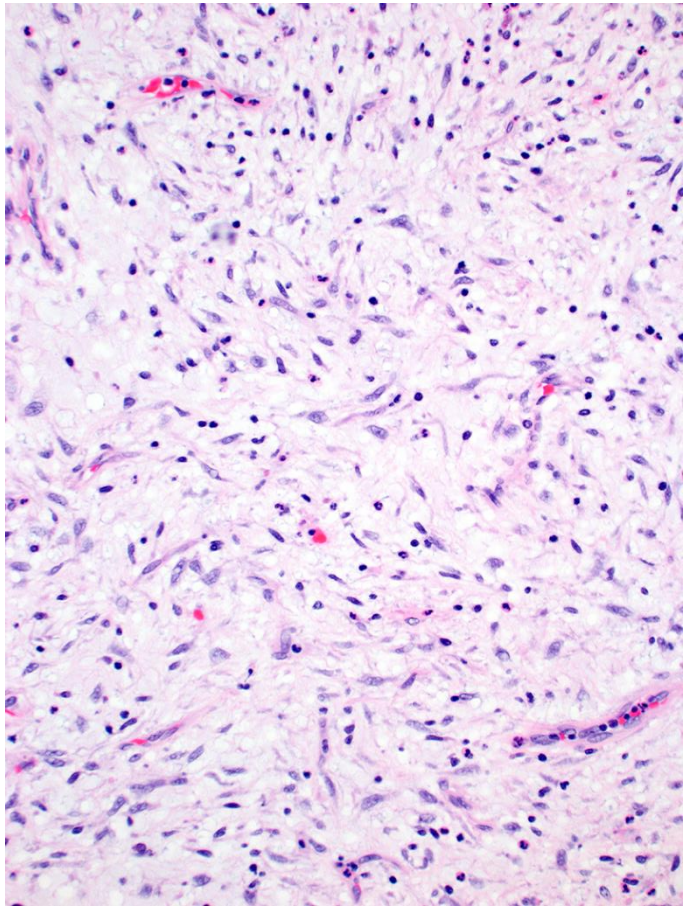
Leiomyoma with myxoid degeneration



Myxoid Leiomyosarcoma



Fibro-myxoid Endometrial stromal sarcoma



Outline of Talk

- Biphasic lesions
- Spindled lesions
- **Epithelioid lesions**

Epithelioid Tumors (other than Epithelial)

- **Mesenchymal tumors**

Epithelioid smooth muscle tumors (leiomyoma, STUMP, leiomyosarcoma)
PEComa

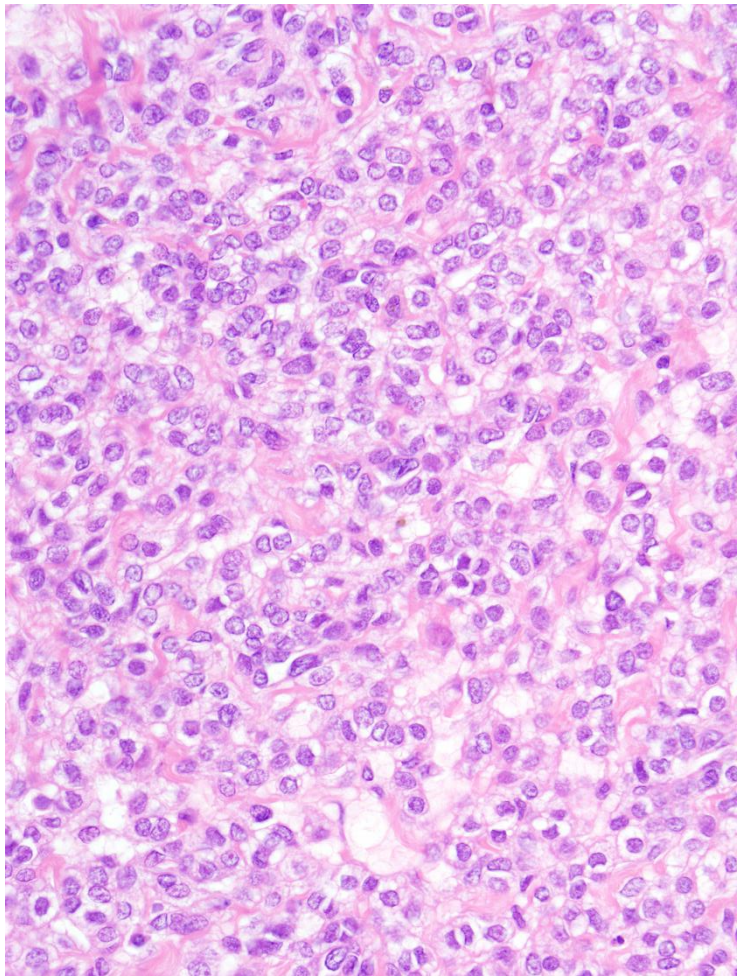
- **Trophoblastic tumors**

Epithelioid trophoblastic tumor
Placental site trophoblastic tumor

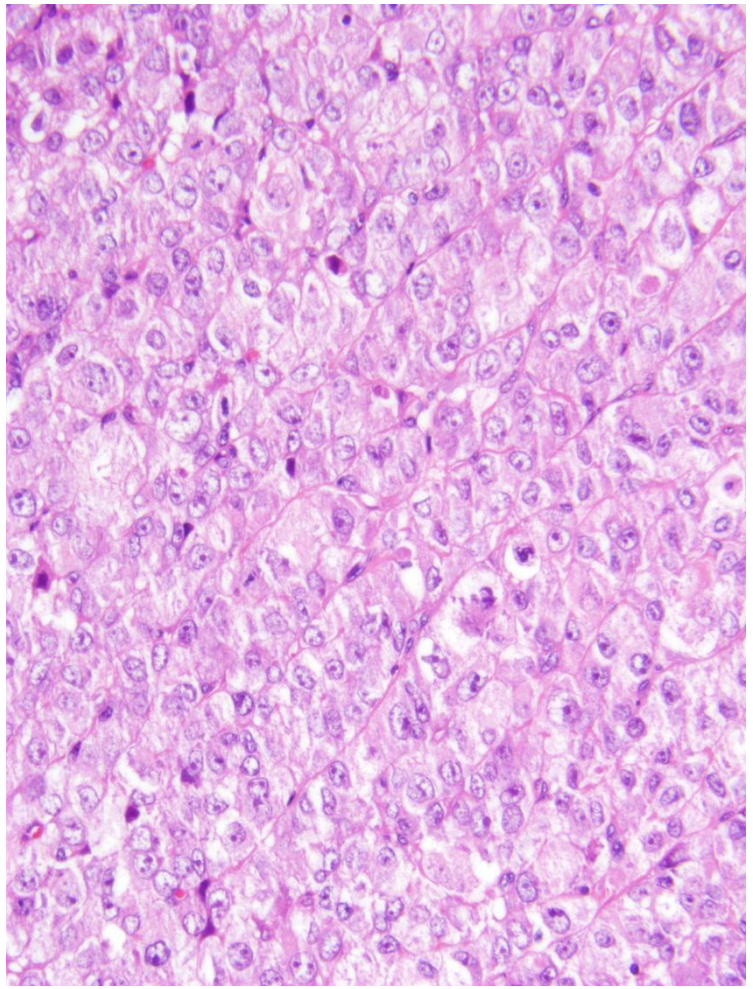
- **Secondary tumors**

Cervical squamous cell carcinoma
Melanoma

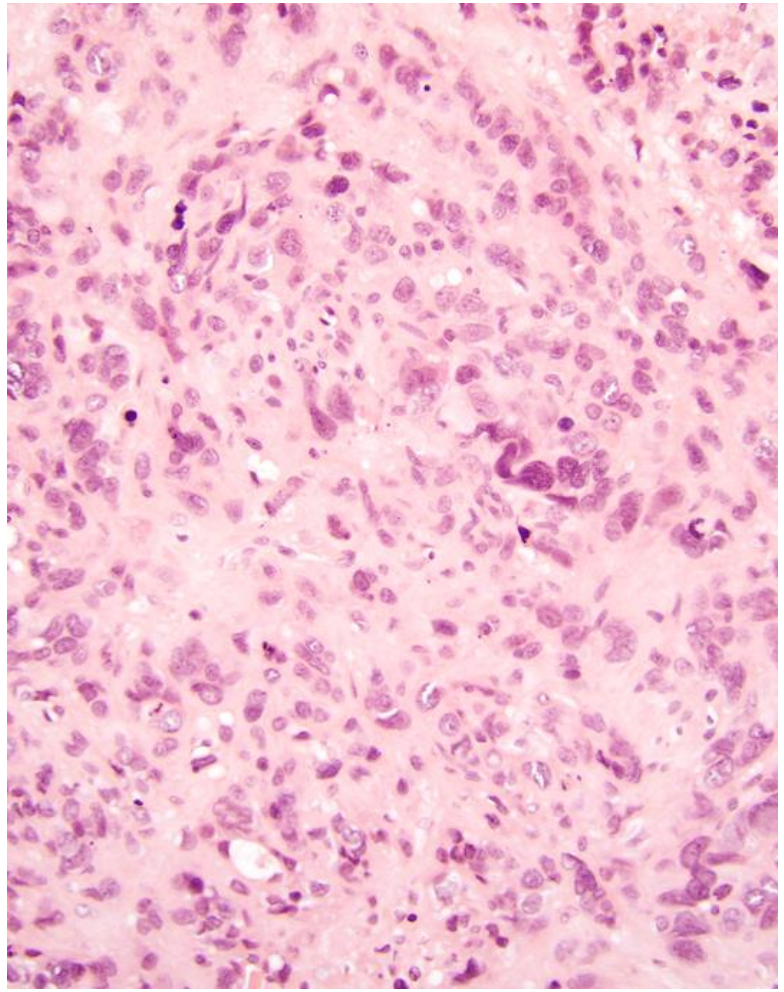
Epithelioid Leiomyoma



PEComa



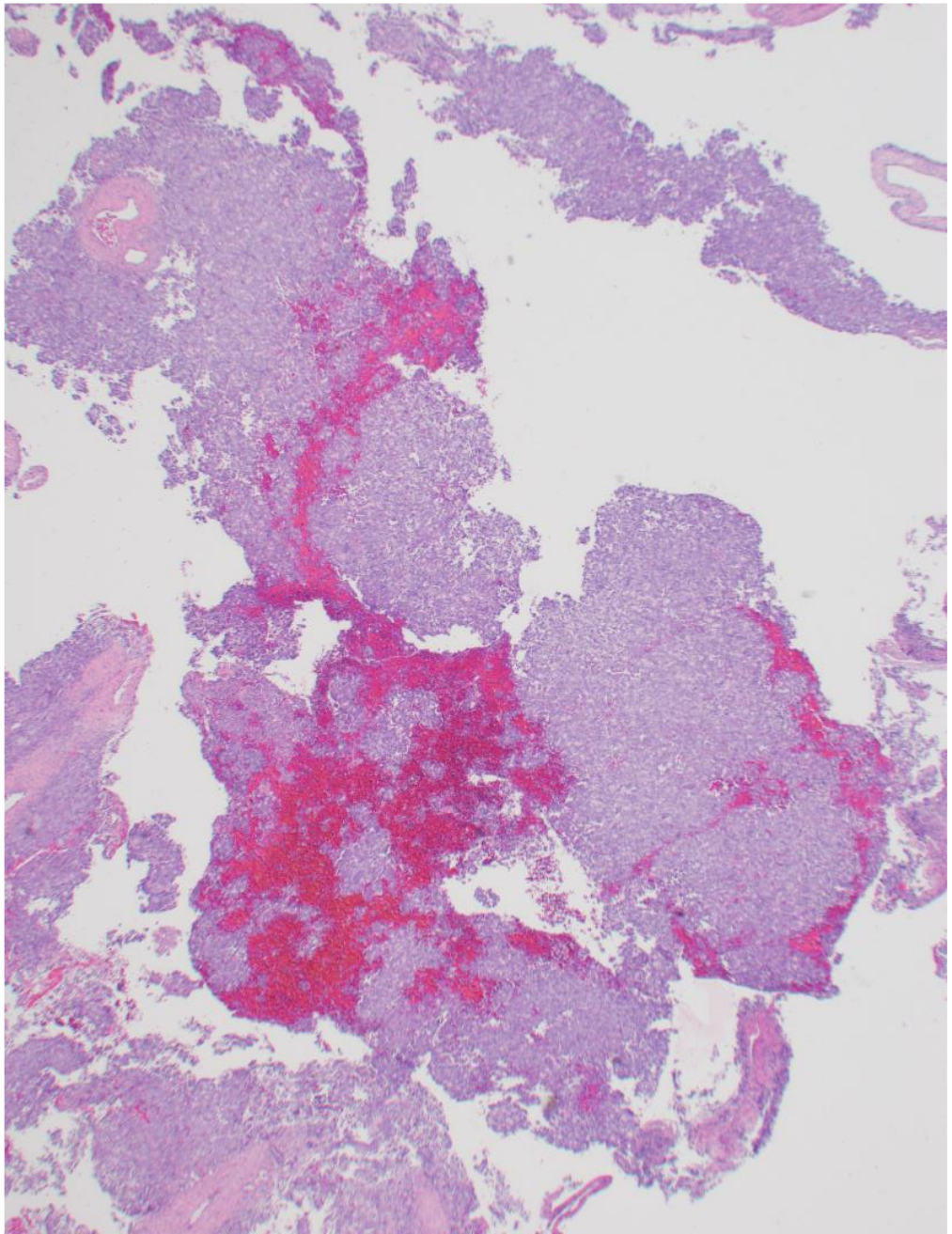
Epithelioid Trophoblastic tumor

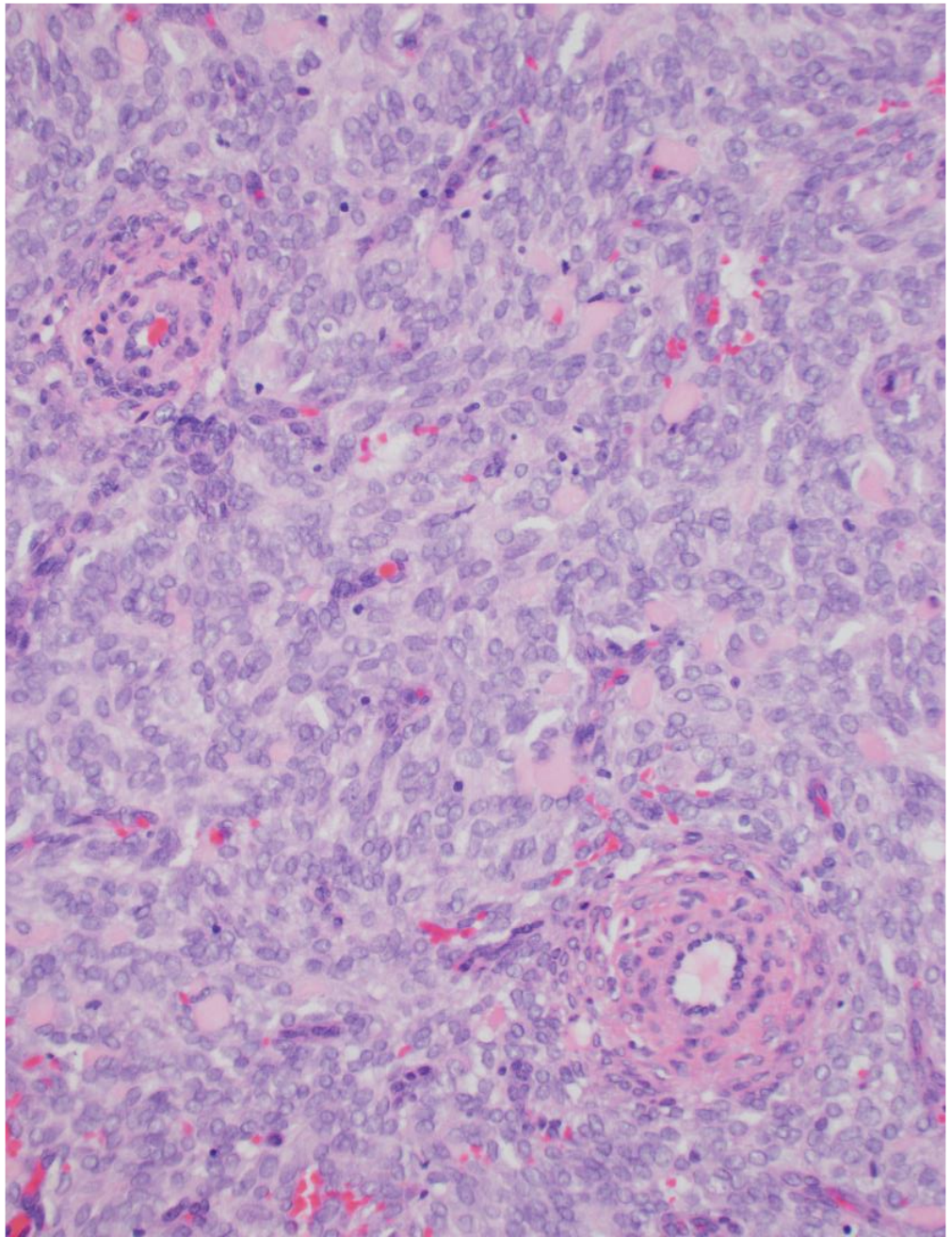


Outline of Talk

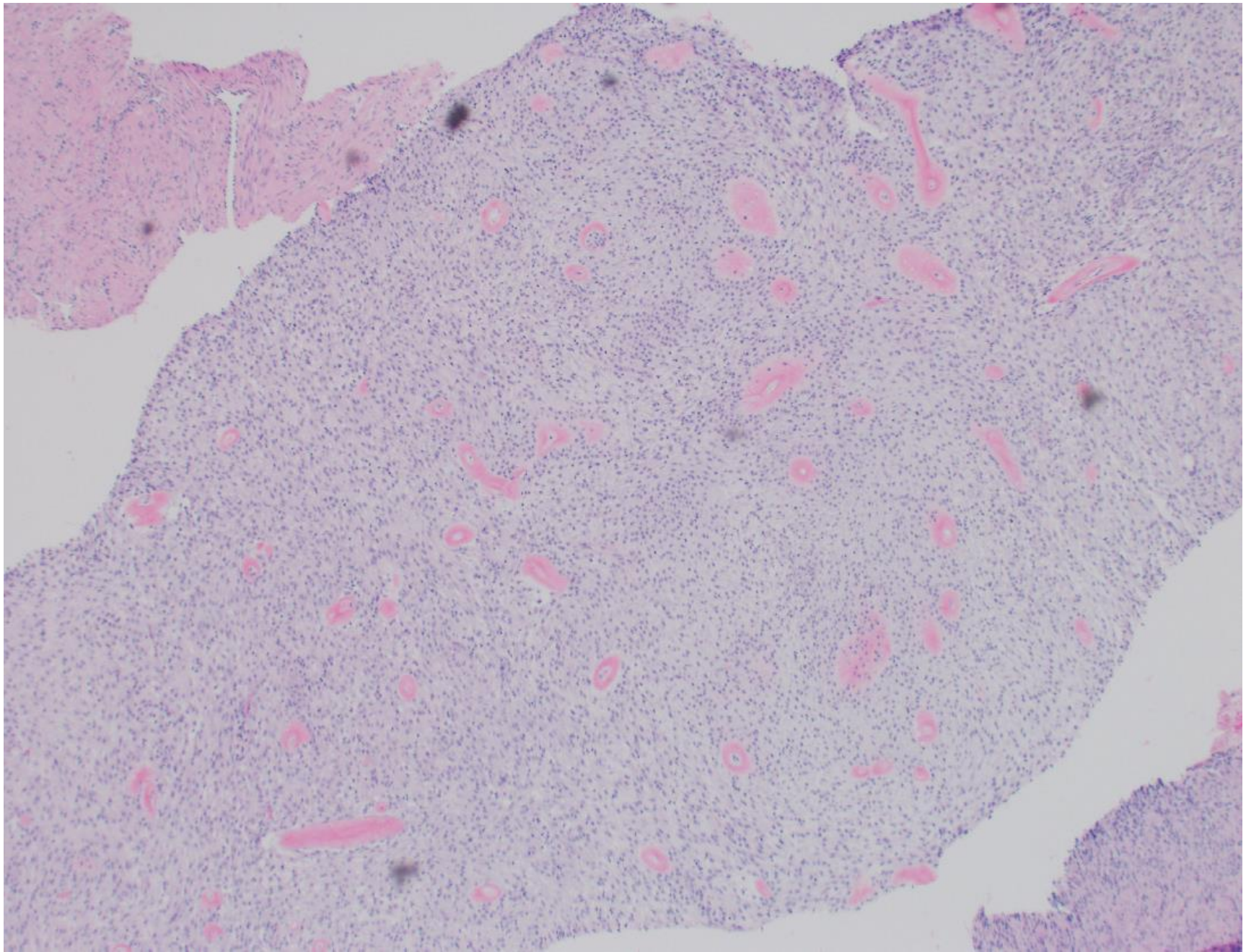
- Biphasic lesions
- Spindled lesions
- Epithelioid lesions
- **Endometrial stromal lesions**

Endometrial Stromal Lesions in Biopsies





Endometrial Stromal Lesions in Biopsies



Endometrial Stromal Lesions in Biopsies

- **Non-neoplastic endometrium**
  - **Unusual sectioning artifact of normal endometrium**
  - **Progestin-treated endometrium**
- **Low grade endometrial stromal tumor**
  - **Endometrial stromal nodule**
  - **Endometrial stromal sarcoma**

Endometrial Stromal Lesions in Biopsies

Challenges

- **Non-neoplastic endometrium**
- **Low grade endometrial stromal tumor**

- *May not always reliably distinguish these options*
- *Features favoring EST:*
  - *a.) clinical mass*
  - *b.) large size of tissue fragment*
  - *c.) absence of endometrial glands in fragment*
  - *d.) molecular test for classic fusions*
    JAZF1, PHF1

Limitations: -not all EST harbor these fusions
-won't distinguish nodule vs sarcoma

Endometrial Stromal Lesions in Biopsies

Challenges

- Non-neoplastic endometrium

  Unusual sectioning artifact of normal endometrium

  Early progestin-treated endometrium

- **Low grade endometrial stromal tumor**

Endometrial stromal nodule

Endometrial stromal sarcoma

Cannot distinguish in biopsy unless

a.) LVSI

b.) clear cut myoinvasive growth

Endometrial Stromal Lesions in Biopsies

Challenges

My Personal Approach:

Final Diagnosis: **Low grade endometrial stromal proliferation; see comment.**

Comment:

1. Cannot exclude endometrial stromal nodule / sarcoma.
2. Advise radiological correlation

If fertility-sparing is a priority:

Management is problematic since hysterectomy is only way to definitively exclude LG-ES-sarcoma
Avoid offering a prediction between ES-nodule versus LG-ES-sarcoma

Outline of Talk

- Biphasic lesions
- Spindled lesions
- Epithelioid lesions
- Endometrial stromal lesions
- **Chronic endometritis**

Chronic Endometritis

Complex, unresolved topic

Clinician's perspective:

In the setting of unexplained infertility, an endometrial biopsy diagnosis may provide:

a.) a possible explanation for infertility

Pro-inflammatory endometrial "biome" not receptive to implantation
Infectious pelvic inflammatory disease

b.) a possible justification for antibiotic treatment

Chronic Endometritis

Challenge

No consensus on diagnostic criteria

Historically, plasma cells are viewed as criteria for “chronic endometritis”

No evidence based definition of minimum number required

Additional proposed criteria:

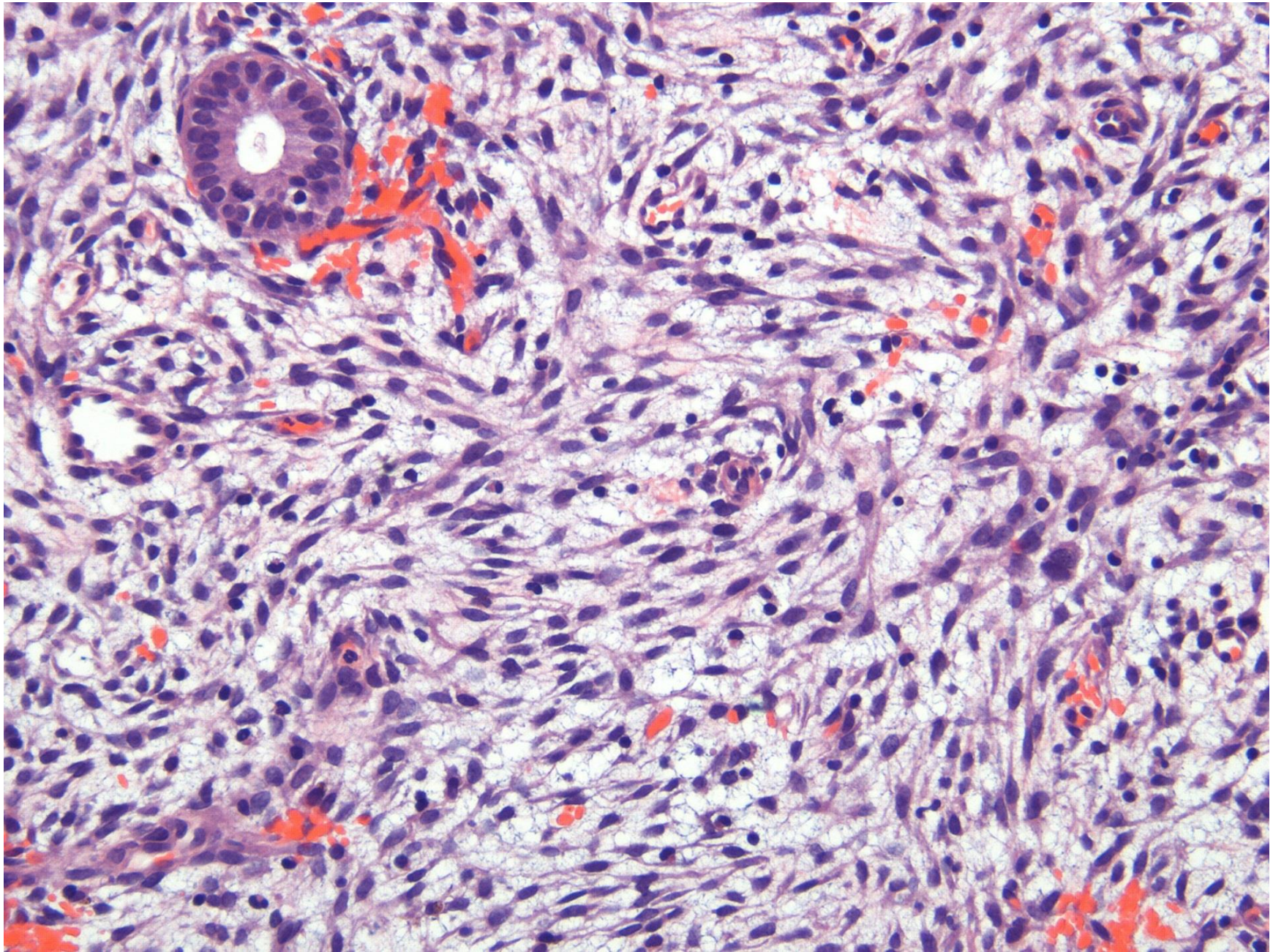
- **Endometrial stromal edema**
- **“Spindled” endometrial stroma**
- **Increased cellularity of endometrial stroma**
- **Prominent lymphocytes / lymphoid follicles**

Greenwood 1981 PMID: 7254729

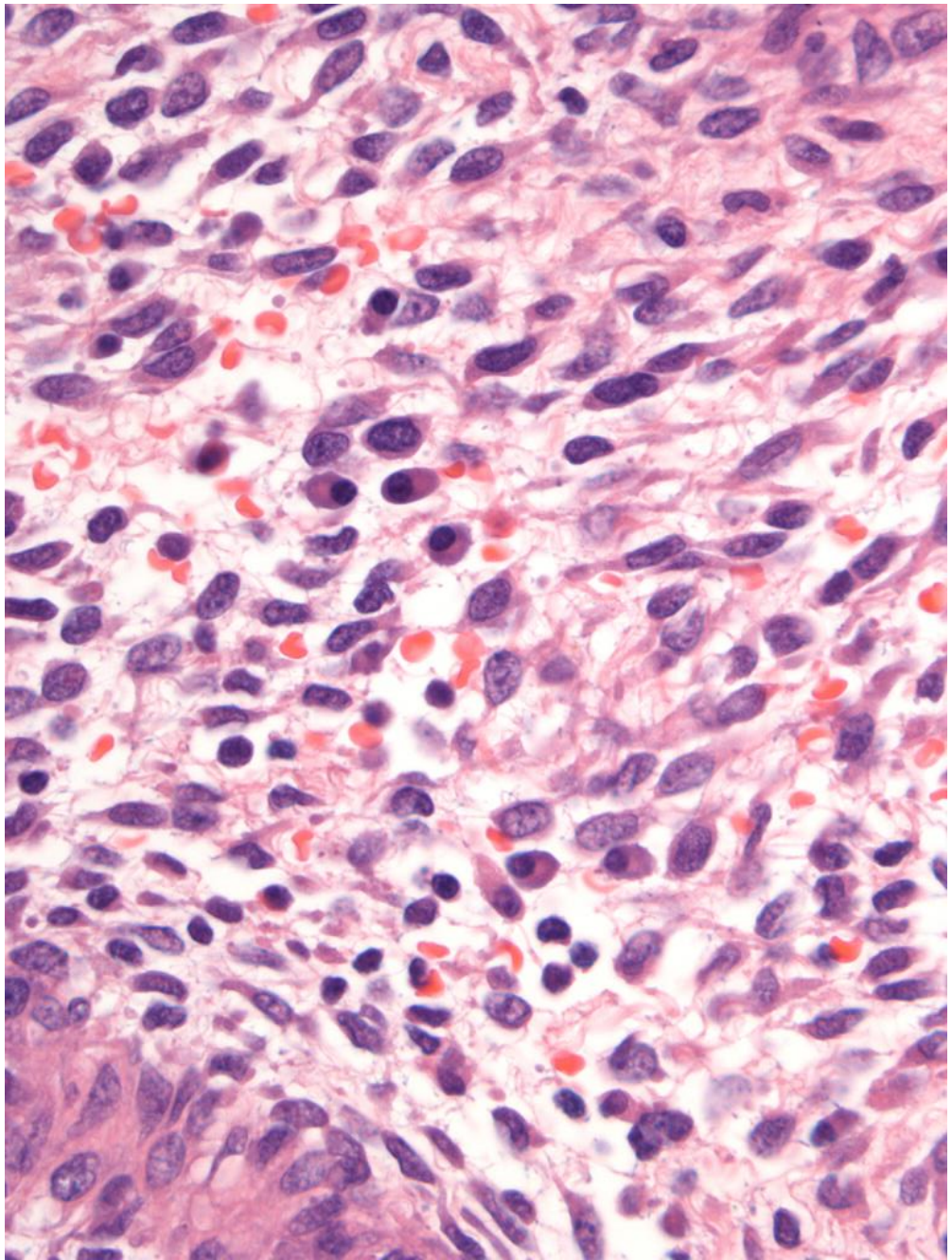
Literature is problematic

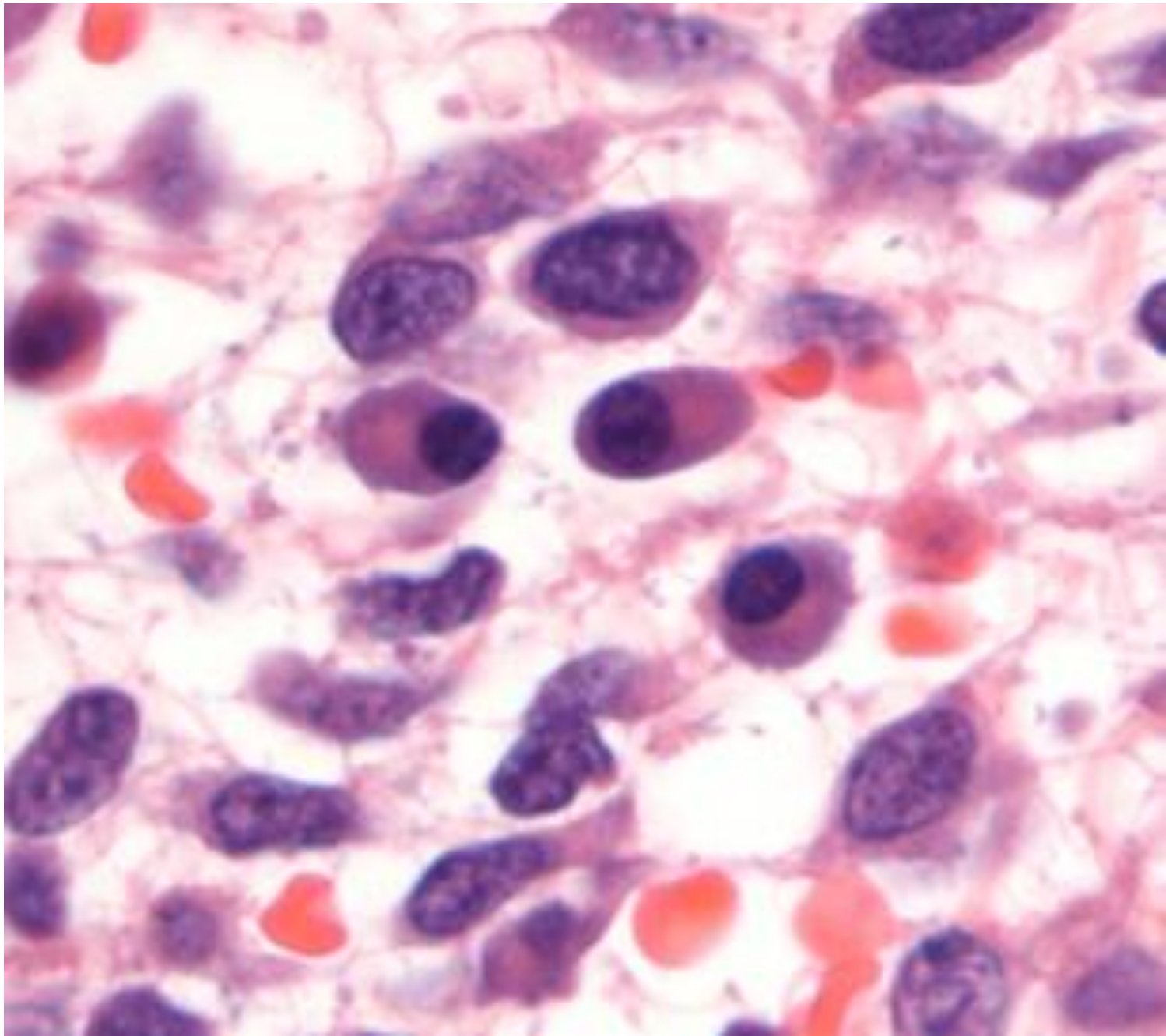
Limitations due to study design problems, biases, lack of standardization

Spindled, edematous stroma: clue for plasma cells

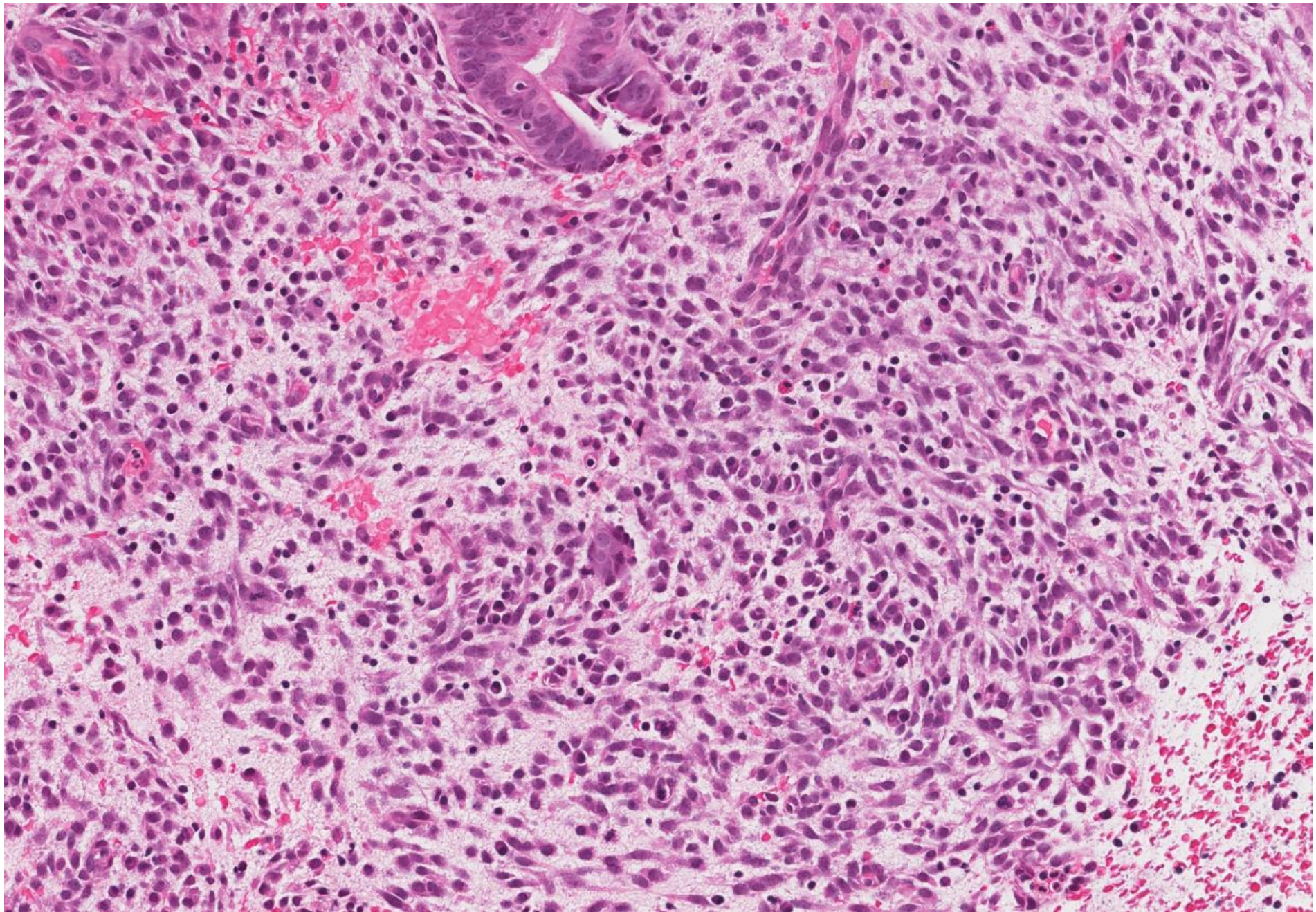


Plasma Cells In Endometrial Stroma

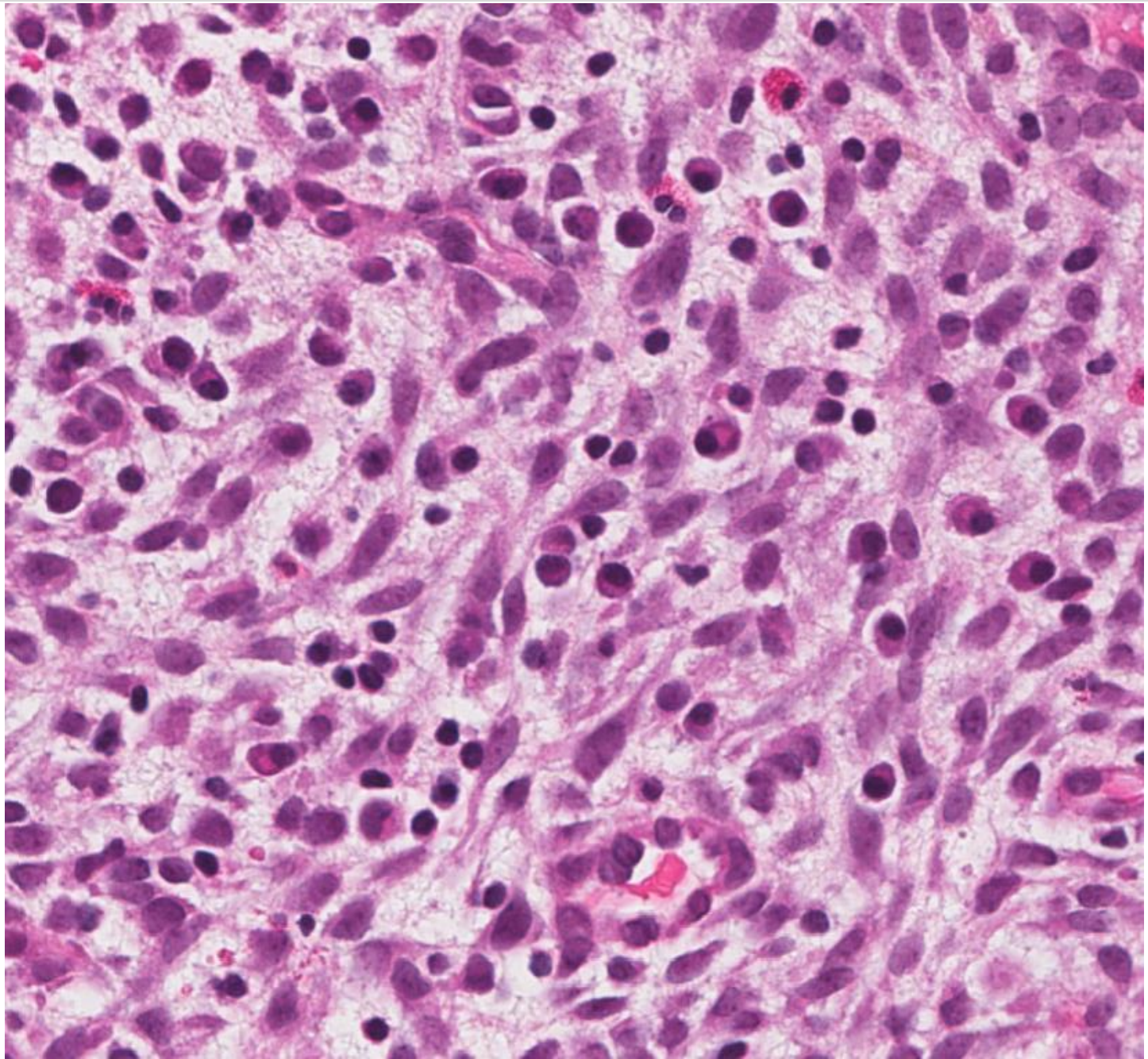




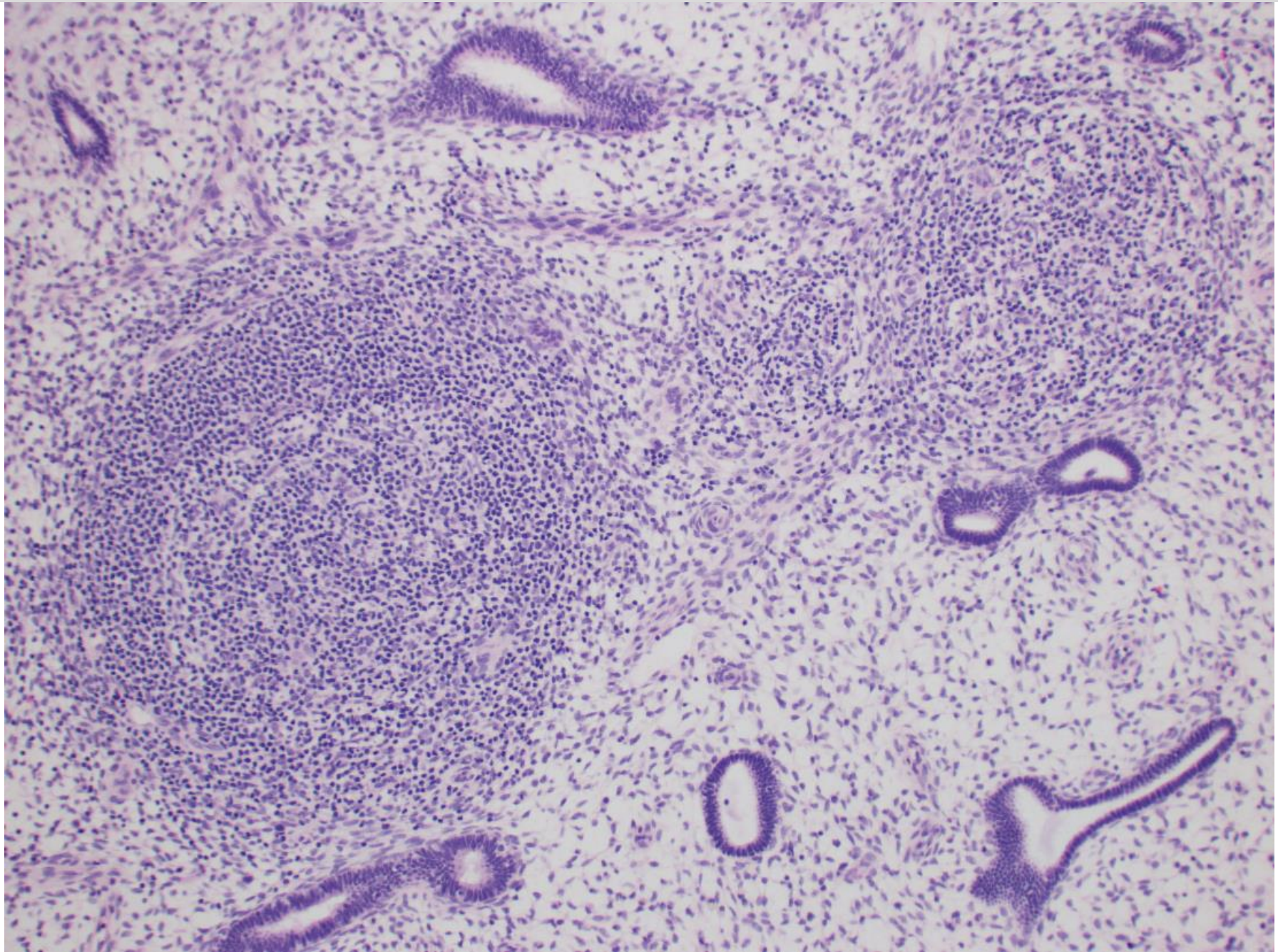
Stromal edema, lymphocytes, plasma cells



Stromal edema, lymphocytes, plasma cells

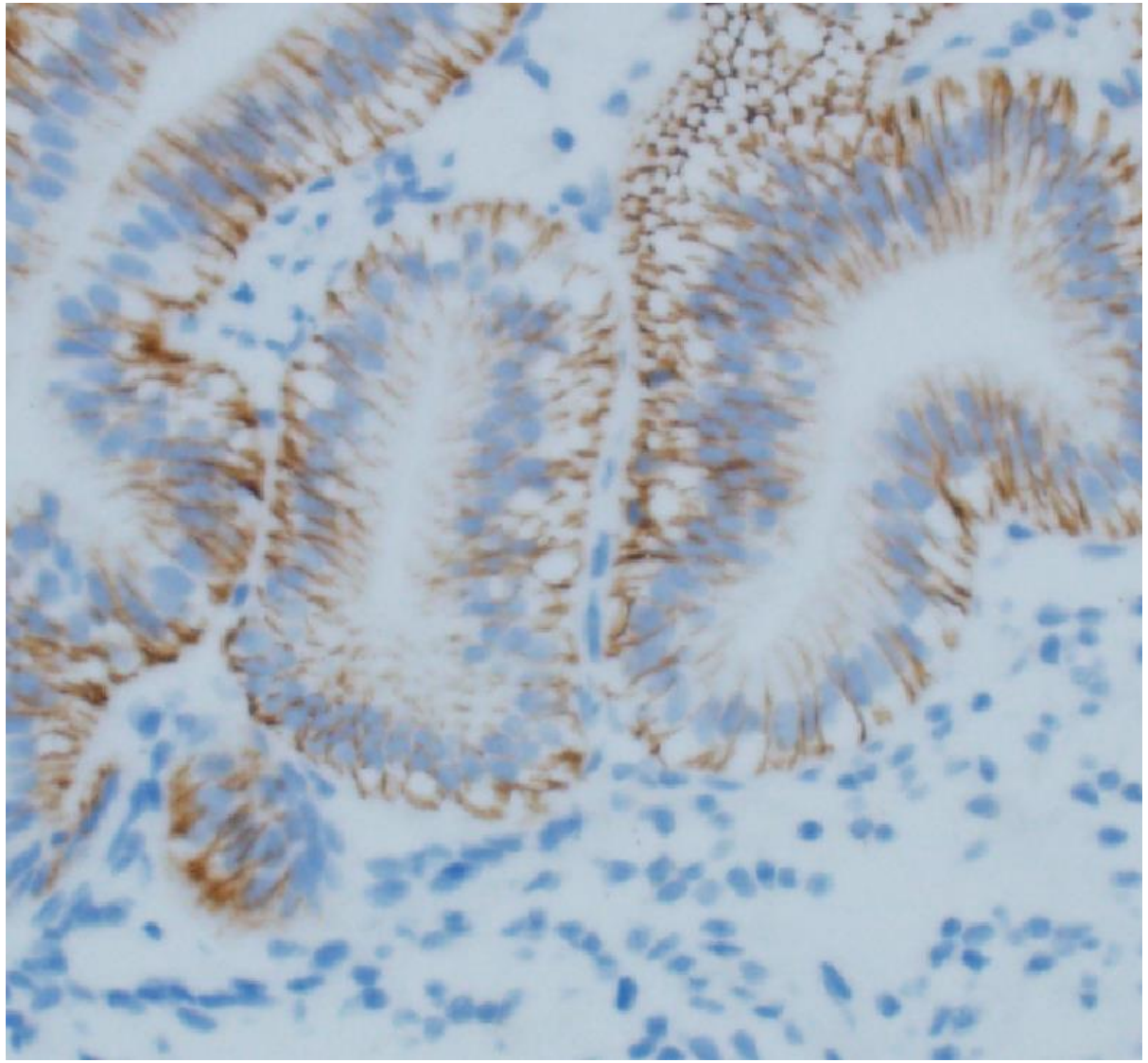


Reactive lymphoid follicles

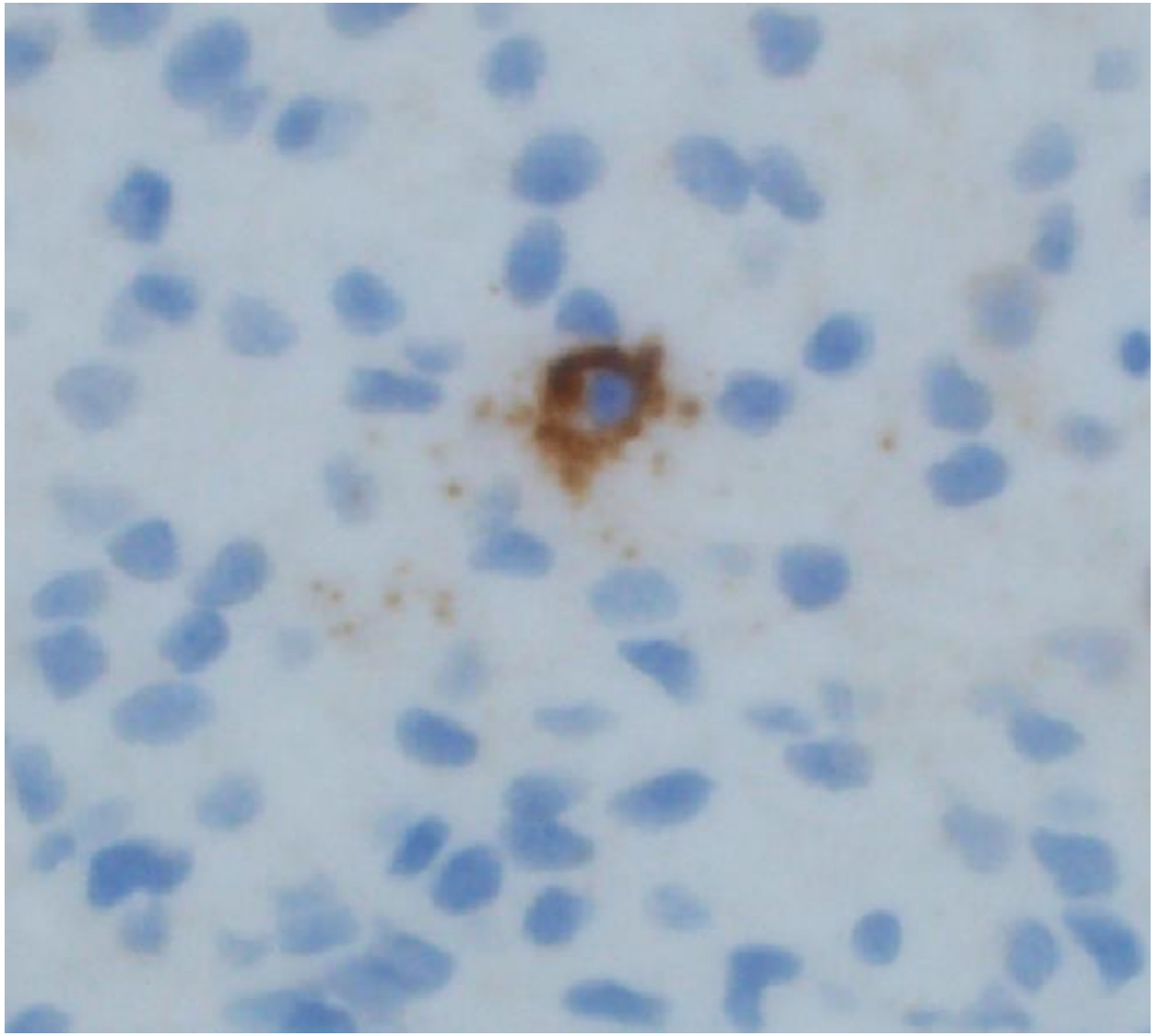


CD138

Positive in epithelium



Positive in plasma cells



What is the Incremental Value of Markers for Plasma Cells ?

Literature is controversial

Is CD138 Staining Specific for Plasma Cells ?

No

CD138 staining cell populations
Plasma cells
Endometrial epithelium

occasionally

Endometrial stromal cells
Trophoblast
Lymphocytes

O'Connell 2004 PMID: 14983940

What is the Incremental Value of Markers for Plasma Cells ?

Literature is controversial

Routine staining		CD138 staining
Chronic endometritis	→	25% were NEGATIVE
No endometritis	→	35% were POSITIVE*

*** for ≥ 1 plasma cell**

MGP stain is only 75% as sensitive as CD138 stain

Miguel 2011 PMID: 21996319

Is Chronic Endometritis Specific for Infectious Etiology ?

~8%-33% of all routine endometrial samplings have incidental plasma cells
(patients presumed to be free of PID)

Non-infectious associations
▪ **Breakdown due to hormonal alterations**
▪ **Reactive inflammation** *recent endometrial / cervical instrumentation* *IUD*
▪ **Degenerating polyp / leiomyoma**
▪ **Normal cycling endometrium**
▪ **Recently pregnant** *(plasmacytic deciduitis)*

Miguel 2011 PMID: 21996319
Kitaya 2011 PMID: 21749546
Smith 2010 PMID: 19952932
Greenwood 1981 PMID: 7254729
Gilmore 2007 PMID: 17188330
Heatley 2004 PMID: 15763793
Achilles 2005 PMID: 15729157
Bayer Garner 2004 PMID: 15335255
Crum 1983 PMID: 6359886

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Original Article

The Diagnostic Criteria for Chronic Endometritis: A Survey of Pathologists

Samantha L. Margulies, M.D., Isha Dhingra, M.D., Valerie Flores, M.D., Jonathan L. Hecht, M.D., Ph.D., Oluwole Fadare, M.D., Lubna Pal, M.B.B.S. F.R.C.O.G., M.S., and Vinita Parkash, M.B.B.S., M.P.H.

Participating Organizations (287 responders)
American Society for Clinical Pathology
International Society of Gynecological Pathologists
British Association of Gynecological Pathologists

TABLE 2. *Differences in the understanding, implications and utilized criteria for diagnosing chronic endometritis between specialist and generalist pathologists*

Characteristic	n (%) Specialist (N = 114)	Generalist (N = 170)	*P*
Number considering NOS-CE a specific entity	83 (72.8)	129 (75.9)	0.56
Number considering NOS-CE to be of bacterial/viral/fungal or mixed infectious etiology	77 (67.5)	102 (60)	0.19
Number diagnosing NOS-CE with a single plasma cell present	35 (30.7)	44 (25.9)	0.37
Number using eosinophils as an adjunctive diagnostic criterion for NOS-CE	10 (8.7)	16 (9.4)	0.85
Number of pathologists NOT using IHC for the diagnosis of NOS-CE	90 (78.9)	144 (84.7)	0.21
Number of pathologists who diagnose NOS-CE in secretory endometrium	57 (50)	75 (44.1)	0.33
Number of pathologists who diagnose NOS-CE in gestational endometrium	48 (42.1)	38 (22.4)	<0.001
Number of pathologists who diagnose NOS-CE in the presence of other benign pathology	14 (12.3)	30 (17.6)	0.22
Number of pathologists who diagnose NOS-CE in the presence of malignant pathology	2 (1.8)	0	NA
Number of pathologists who never diagnose NOS-CE in the presence of coexisting pathology	32 (28)	35 (20.6)	0.15

Too few cases to analyze.
NA indicates not applicable; NOS-CE, nonspecific nonobstetric chronic endometritis.

- Most estimate making the diagnosis of CE in <5% of endometrial samplings

Margulies 2020; PMID: 33323860

No Consensus on Minimum Diagnostic Criteria for Chronic Endometritis

# of plasma cells required to diagnose CE	% of respondents
1	28.5%
2 to 5	35%
>5	18%
Multiple groups of ≥ 3	16%

9% also required eosinophils to be present

Margulies 2020; PMID: 33323860

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Use of CD138 staining	% of respondents
Never	83%
Always	4%
Depends	13%

Margulies 2020; PMID: 33323860

Current Approach for Pathologic Diagnosis of Chronic Endometritis

- *Current understanding of clinical significance is incomplete*
- *Practice is highly subjective*

My strategy, based on literature and experience*:

- **Routine H&E stain is sufficient** (no role for CD138 stain)
- **Need >1 group of >2-3 plasma cells**
- **Prefer additional concurrent findings:**
  - *Stromal edema, spindled stroma, lymphoid follicles*
- **Scant foci not reportable in certain settings:**
  - Endometrial breakdown
  - Degenerating polyp/leiomyoma
  - Evidence of wound healing
  - Recently pregnant or surgical procedure

Comment in pathology report:
PID is a consideration but findings are not pathognomonic

****this approach is shared by 24% of respondents of recent practice survey***

Margulies 2020; PMID: 33323860

Outline of Talk

- Biphasic lesions
- Spindled lesions
- Epithelioid lesions
- Endometrial stromal lesions
- Chronic endometritis

