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Uterine Lab

Vulvar, Cervical, and Uterine Pathology

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Lieberman, M.D., F.A.C.O.G., F.C.A.P.,
Gerald Abrams, M.D.

Winter 2009



Vulvar Biopsy

60-year-old post-menopausal patient presents to her gynecologist relating that she has noticed a white patch (leukoplakia) that “recently” appeared in her genital area. It itches constantly. A biopsy is performed.

What is the differential diagnosis based upon her history?

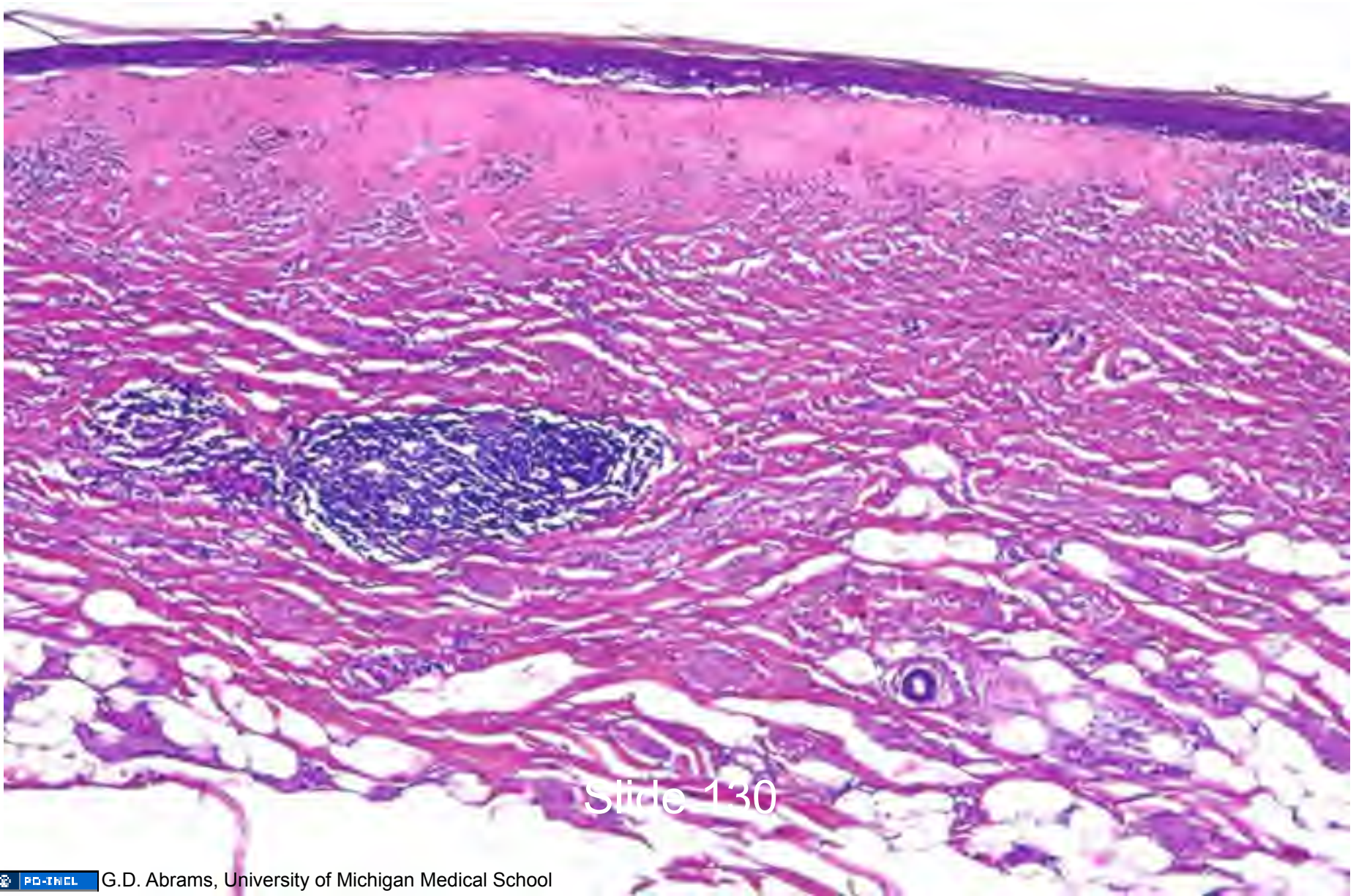
- lichen sclerosis
- psoriasis
- squamous hyperplasia
- VIN
- squamous carcinoma

Clinical Photo: Lichen Sclerosus



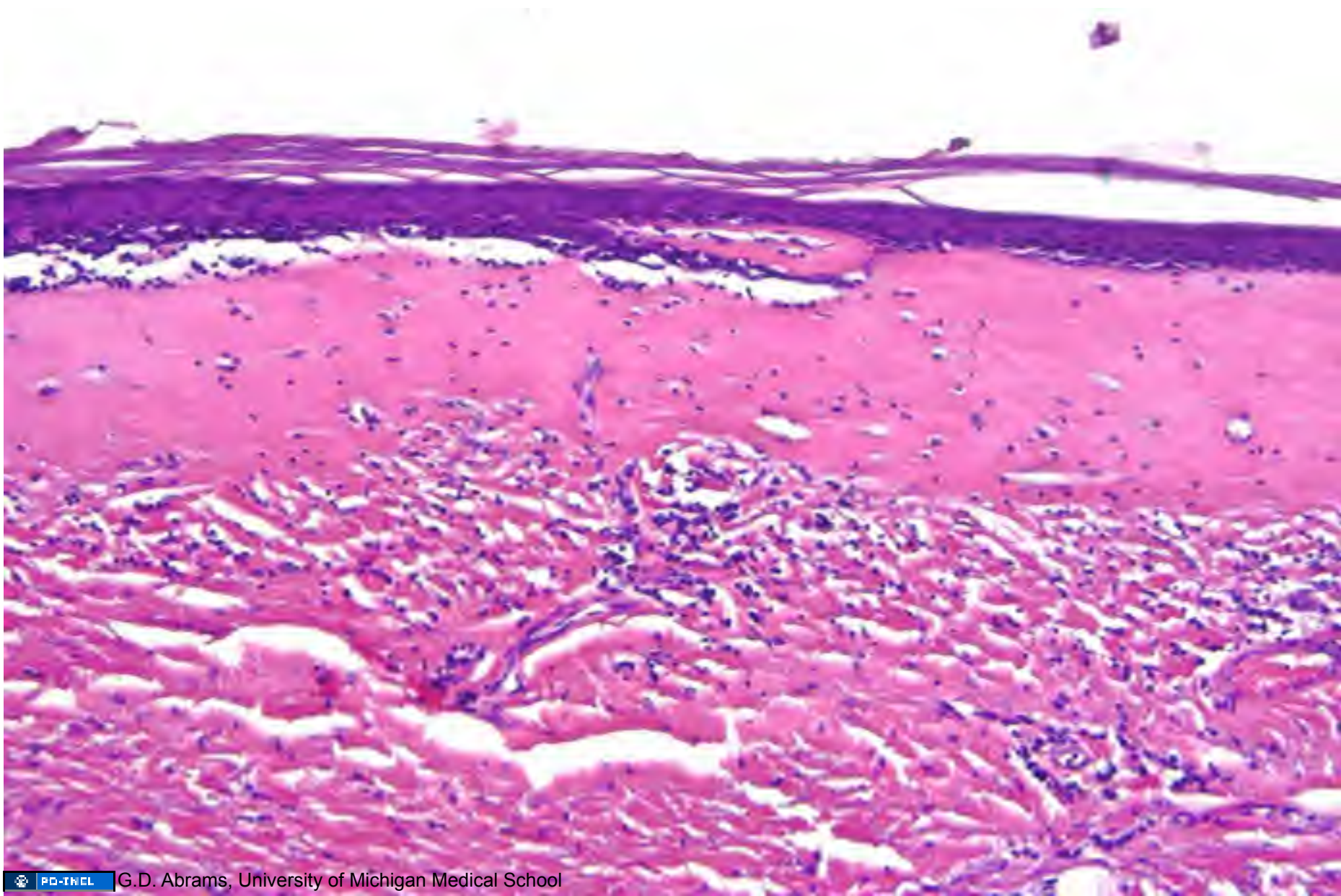
Kraurosis vulvae

Lichen Sclerosus



Slide 130

Lichen Sclerosus

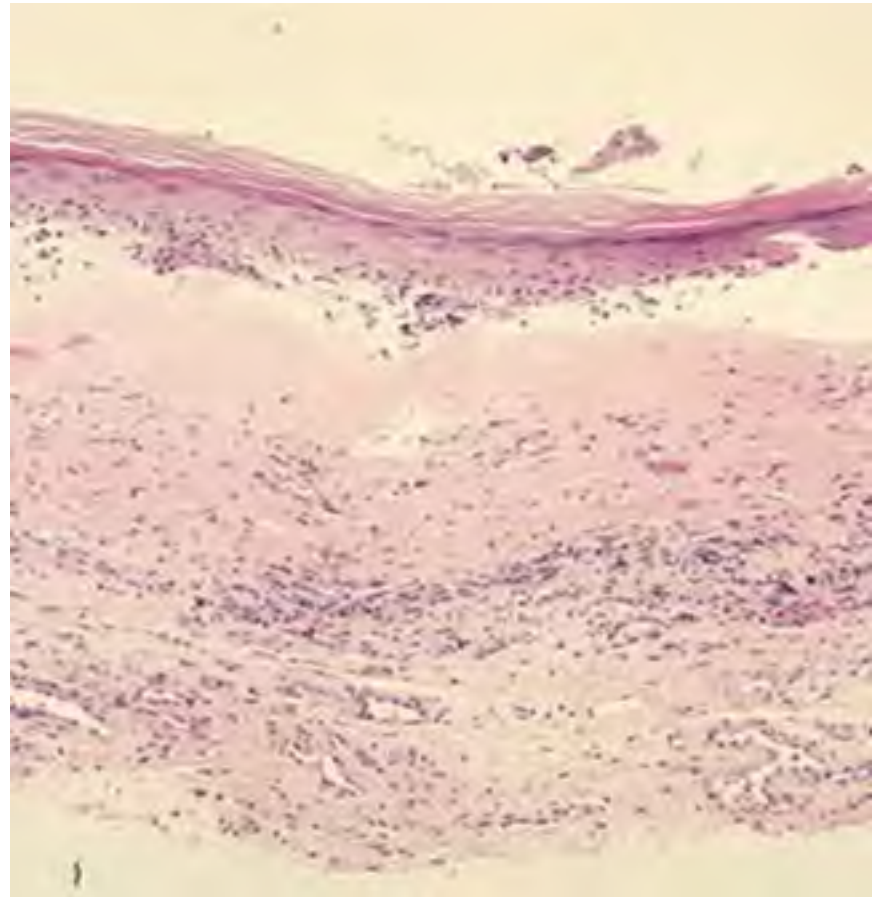


Lichen Sclerosus

- Pruritic white lesion
 - a.k.a. kraurosis vulvae, LS & A, senile vulvitis
 - primarily menopausal women
 - can occur at any age
- Etiology unknown
 - HLA predisposition
 - autoimmune?

Lichen Sclerosus: Histology

- **Histologic triad:**
 - epidermal thinning
 - collagenized upper dermis
 - “lichenoid” lymphocytic infiltrate



Cervix, Cone Biopsy

36-year-old with a PAP smear report of HSIL. She relates a history of “dysplasia” which was treated by cryotherapy (freezing the cervix). Attempts at colposcopy are deemed “inadequate” as the clinician is unable to see the transformation zone (T-Z) in its entirety. A cone biopsy was performed.

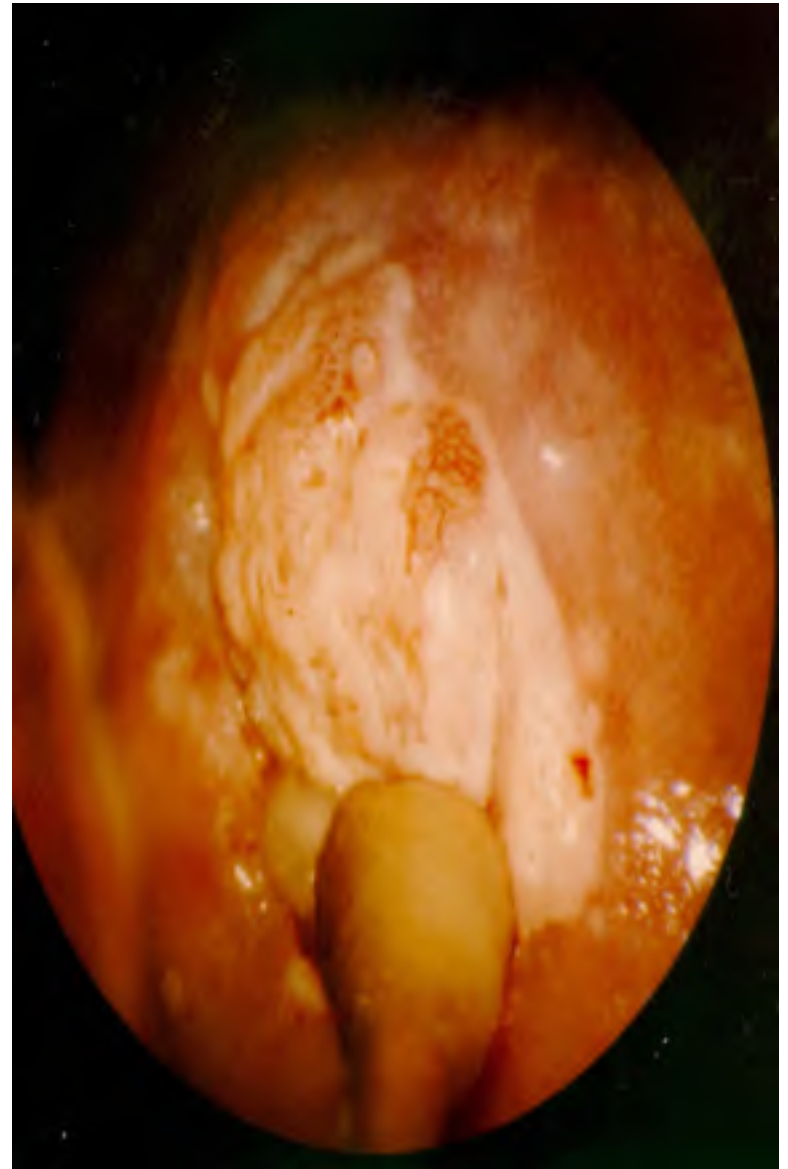
What HPV sub-types might be responsible for these lesions?

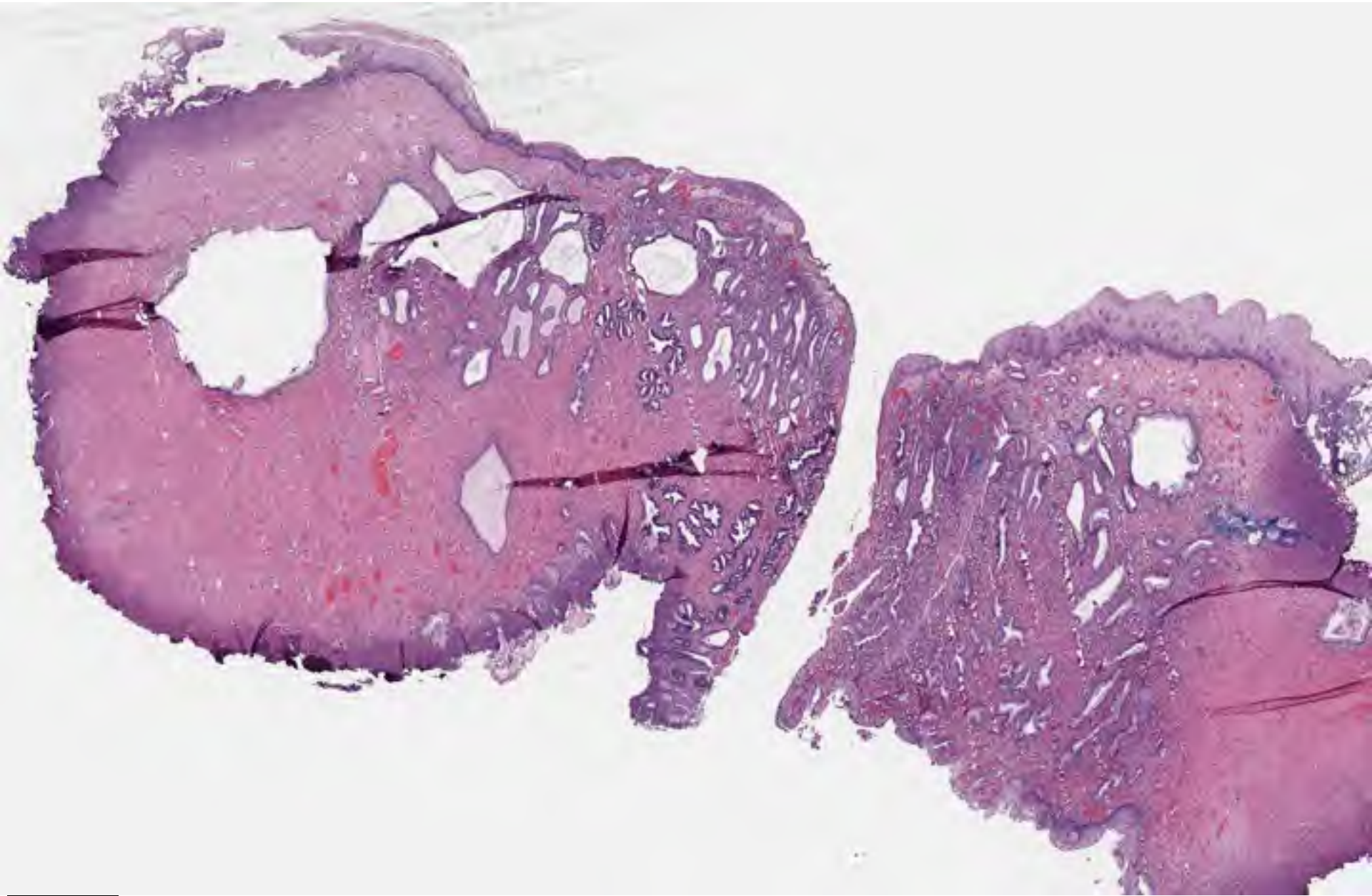
HPV subtypes 16 or 18

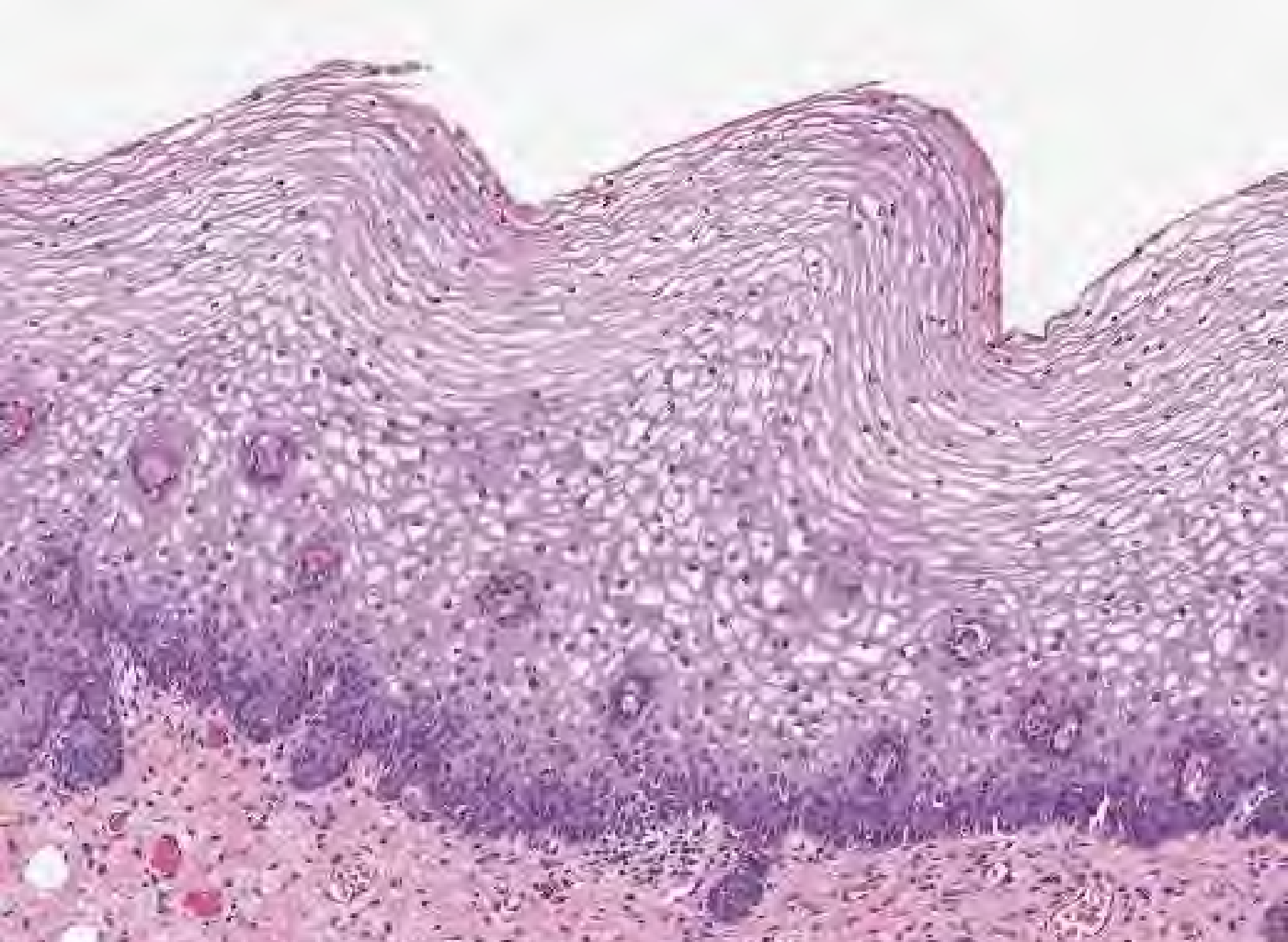
HPV 16 - HSIL or CIN and SCCA

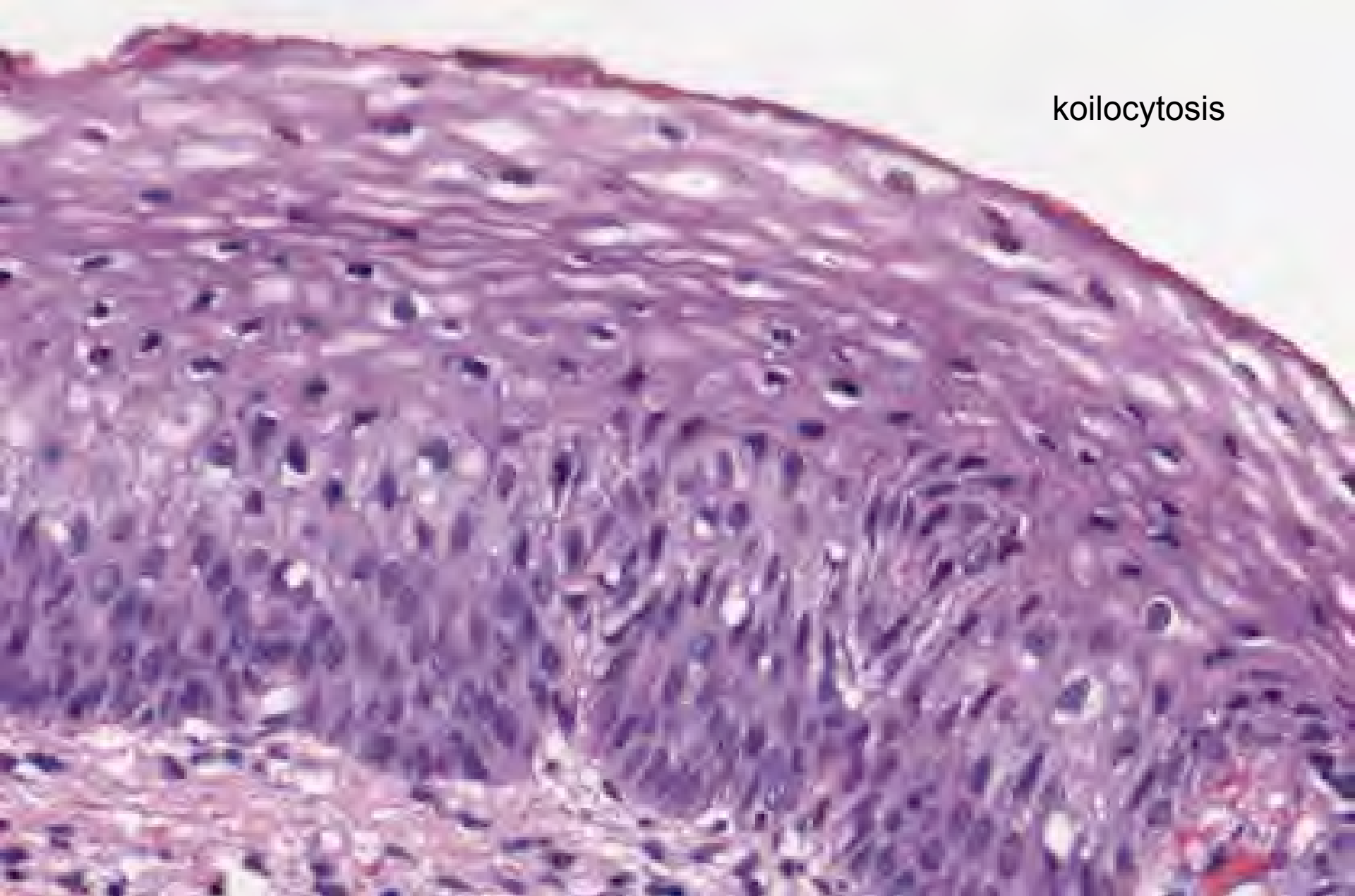
HPV 18 - ACIS

Colposcopic Photographs



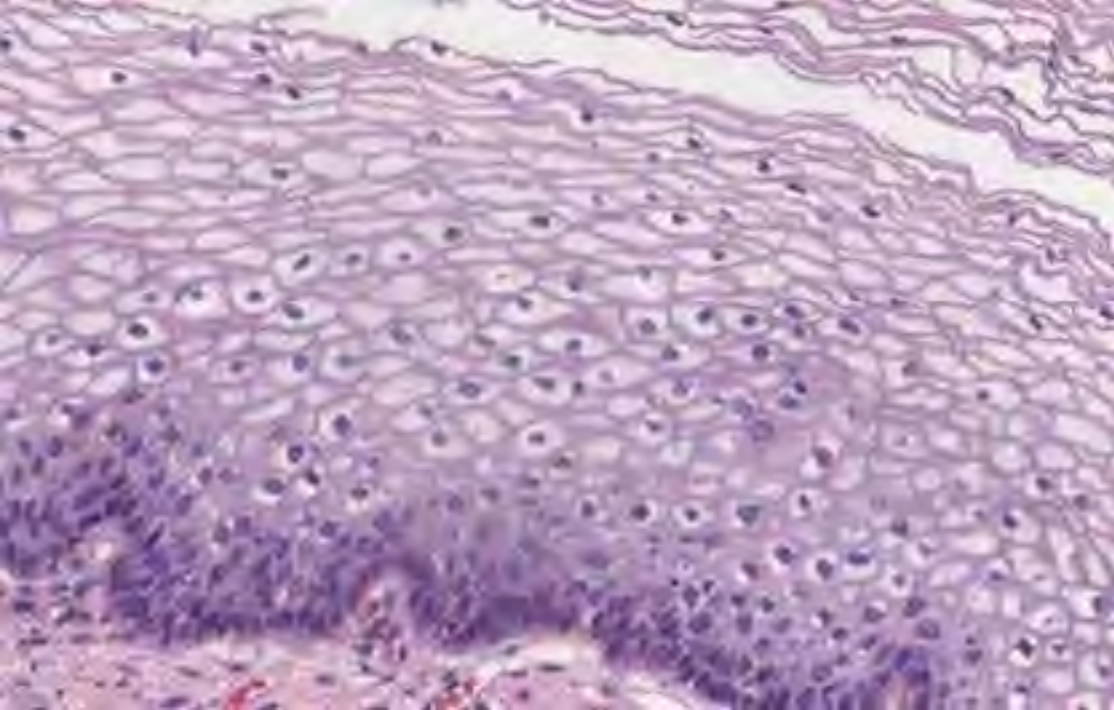




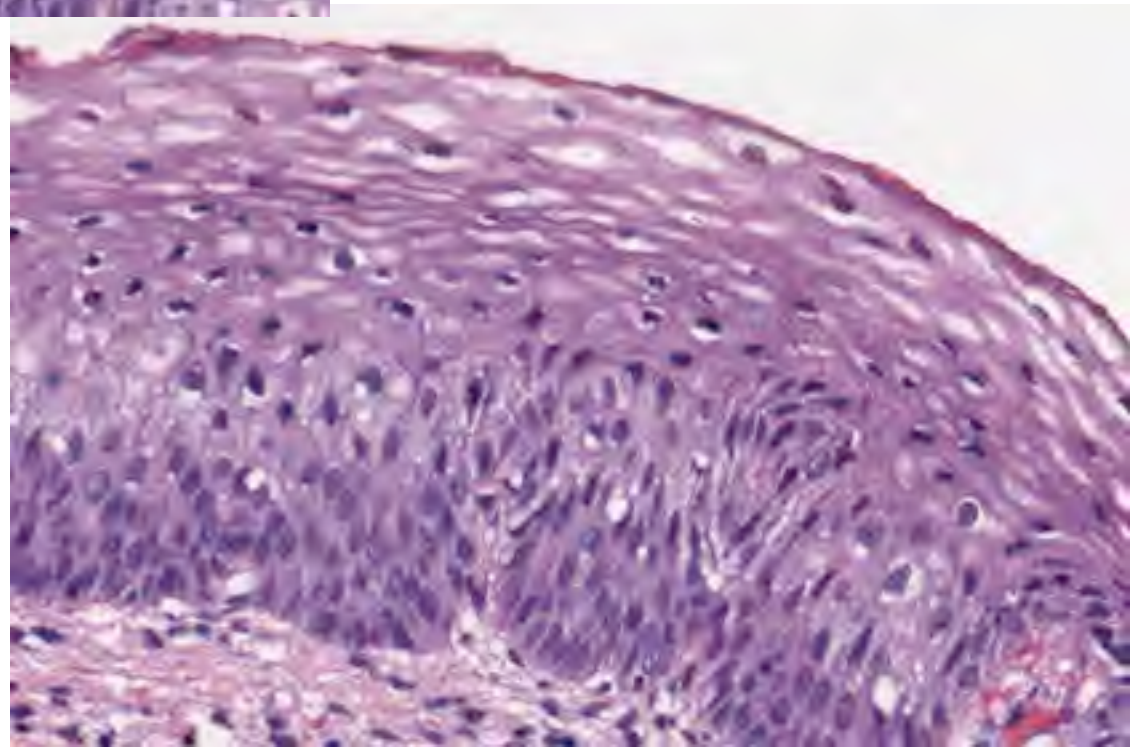


koilocytosis

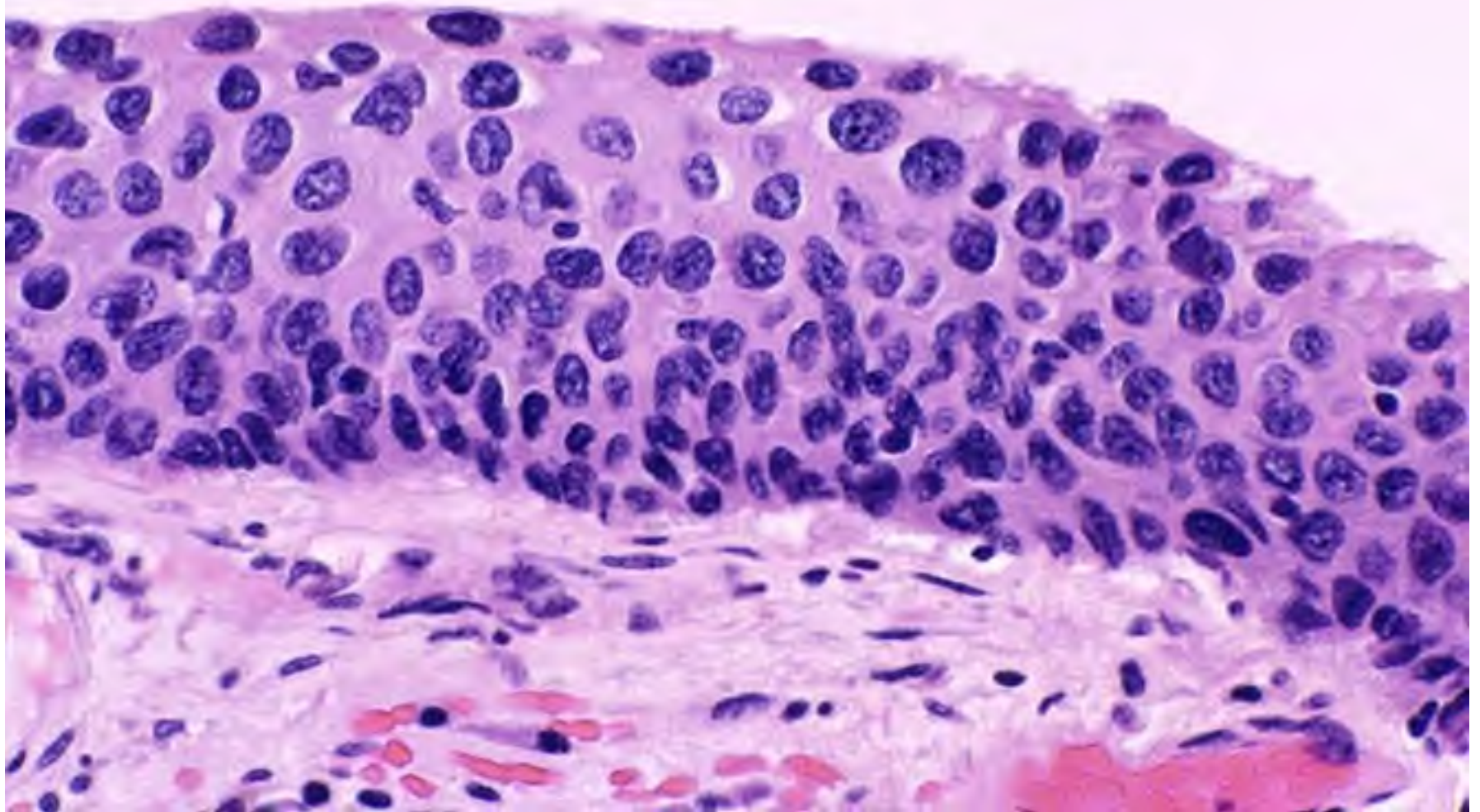
LGSIL



Normal

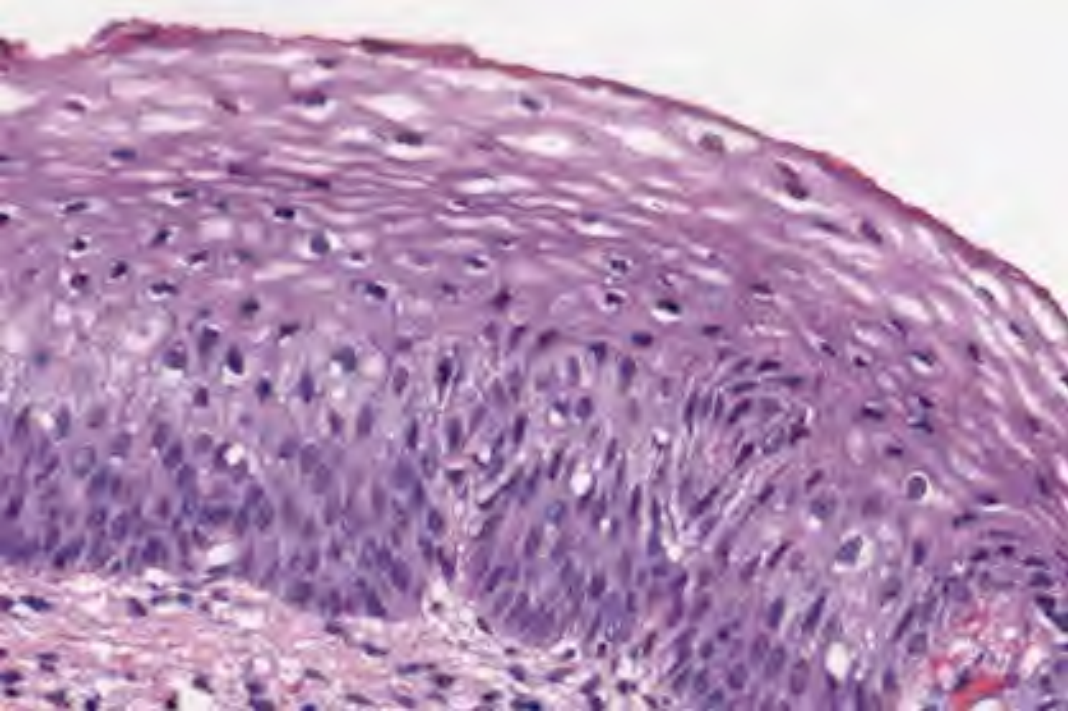


LSIL (CIN I)

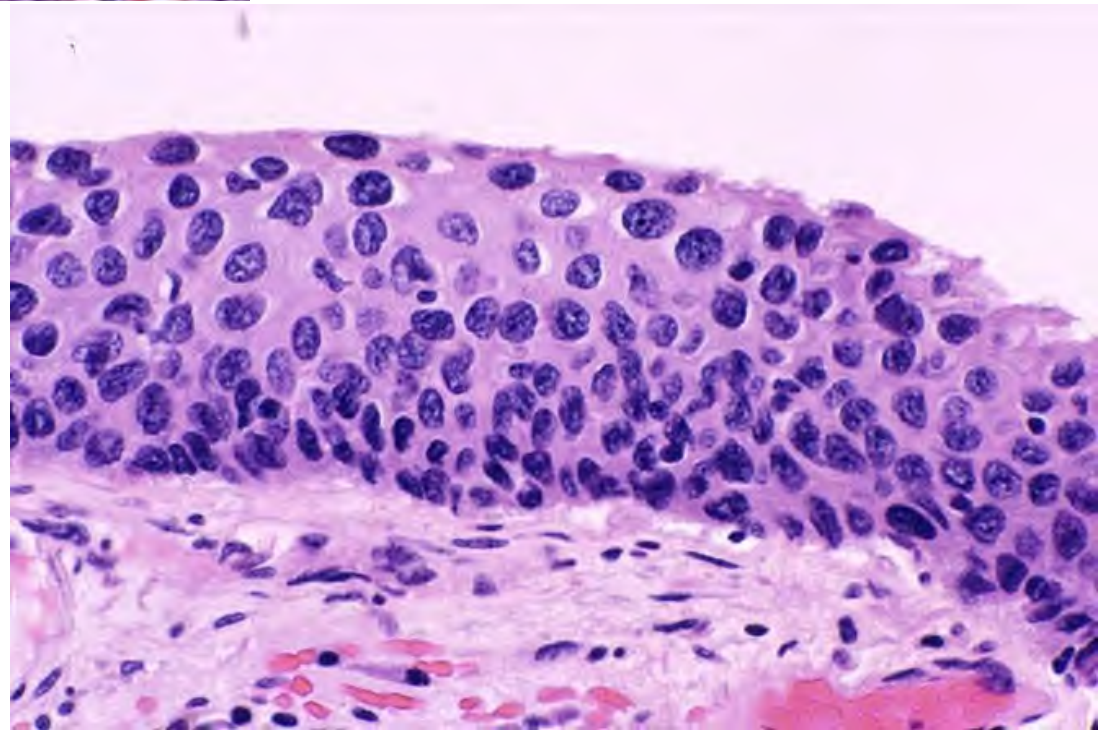


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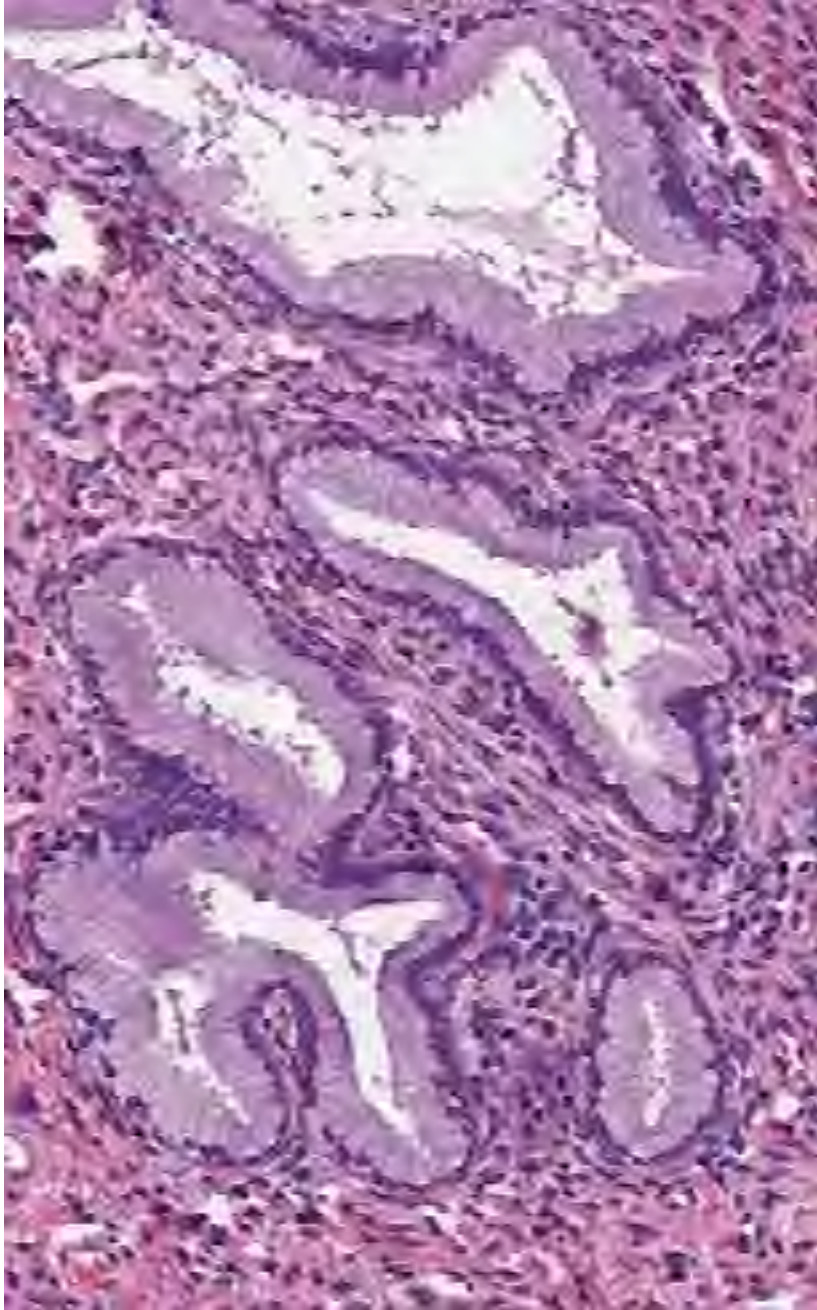
HSIL (CIN 3)



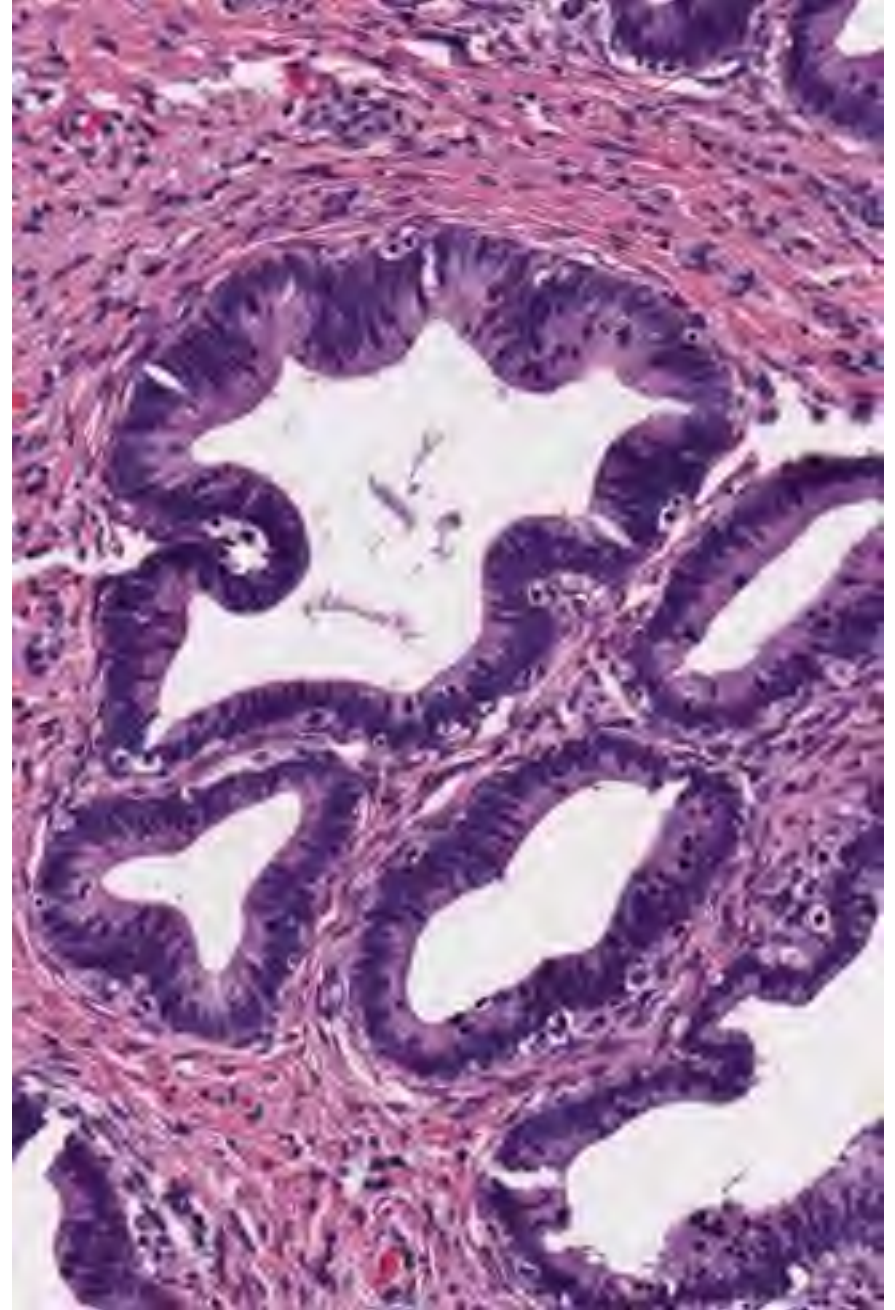
LSIL



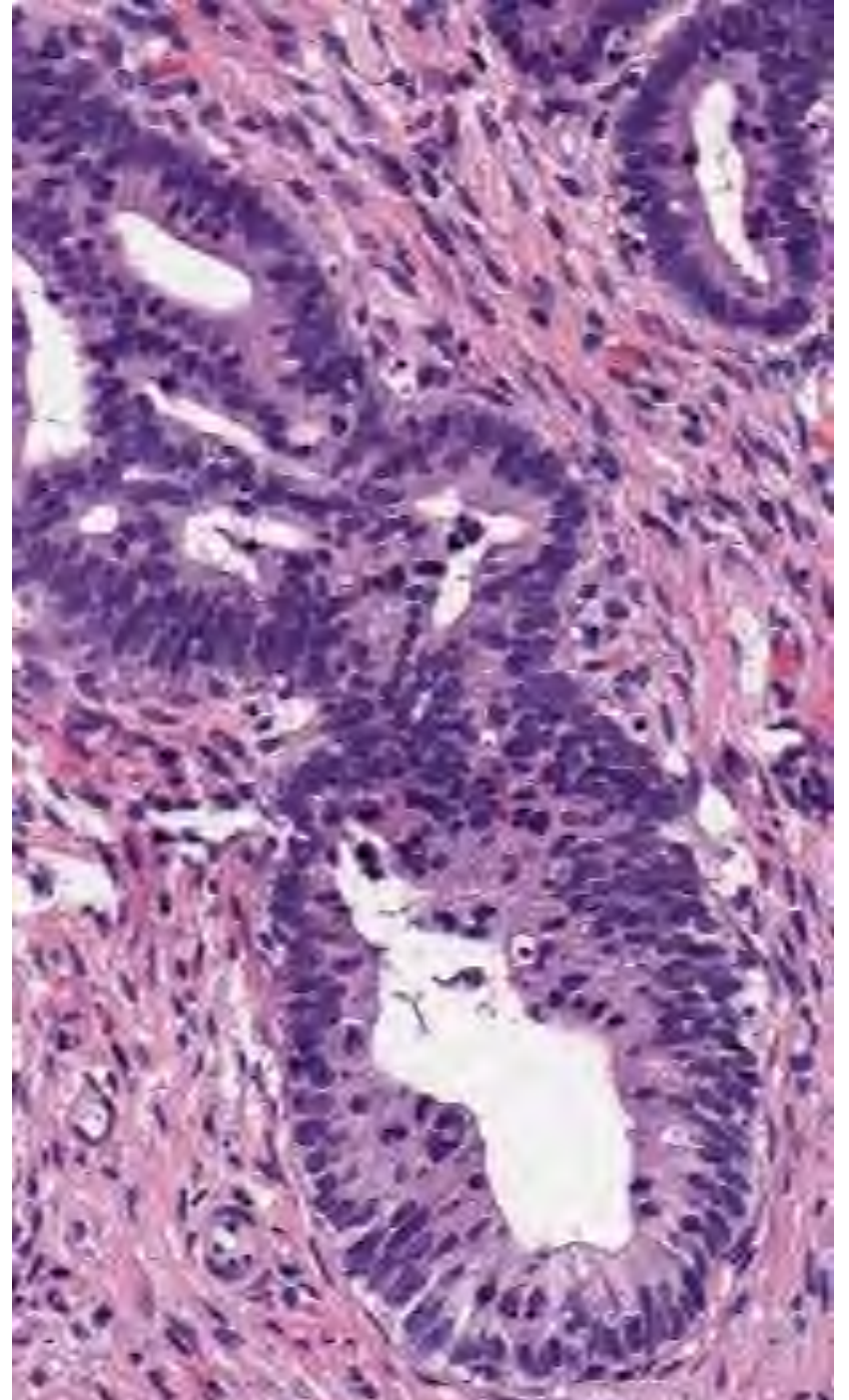
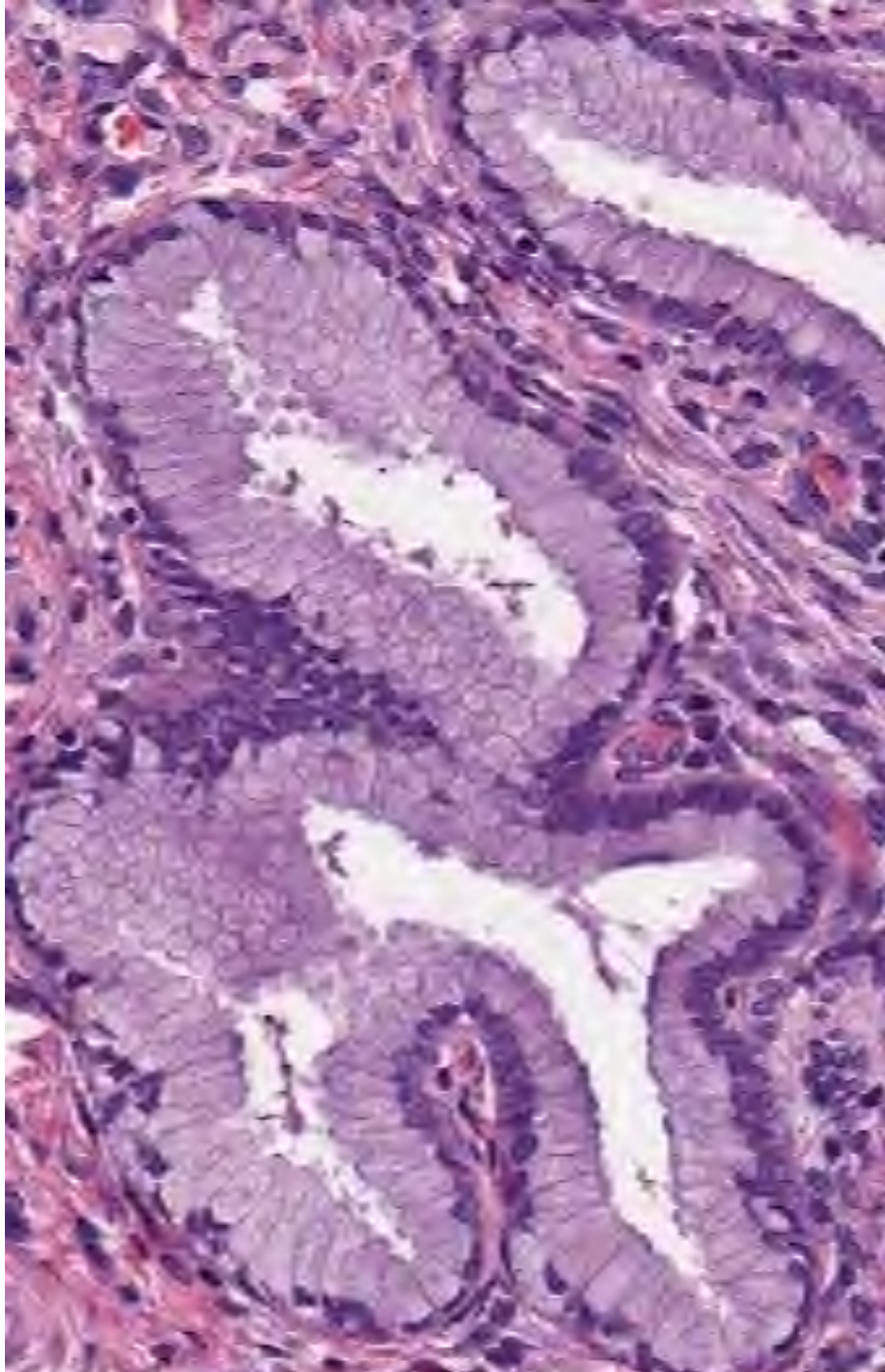
HSIL

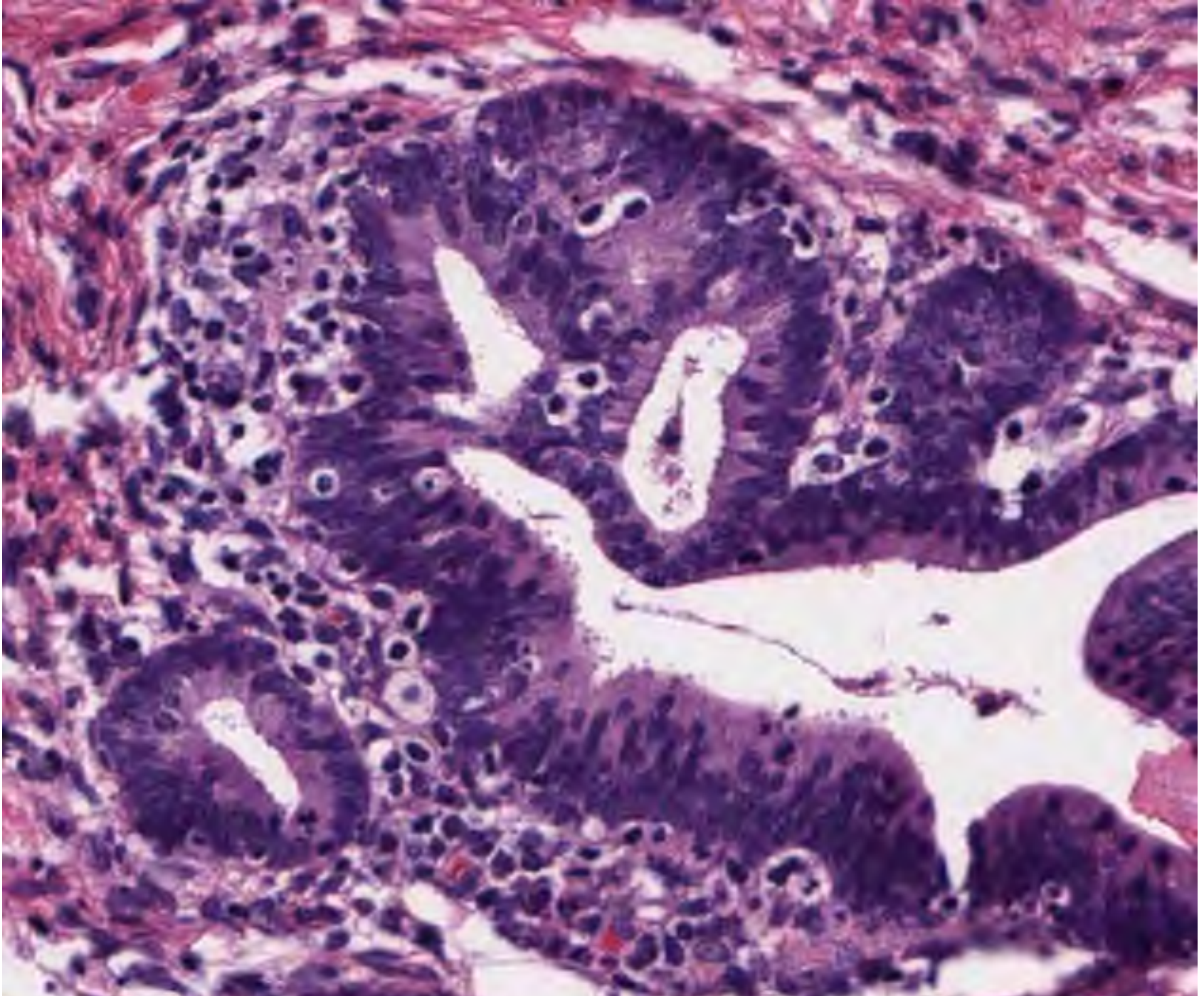


Normal Endocervical Glands



ACIS





HSIL & ACIS - Key Histology

- HSIL (high-grade squamous intraepithelial lesion)
 - squamous (HPV 16)
 - partial to full thickness loss of maturation
 - mitotic figures
- LSIL (low grade squamous intraepithelial lesion)
 - koilocytosis, viral cytopathic effect of HPV
- ACIS (adenocarcinoma in-situ) – HPV 18
 - loss of mucin, high N/C ratios
 - apoptosis (individual cell death)
 - architectural complexity (cribriforming)

Uterus, Endometrial Biopsy

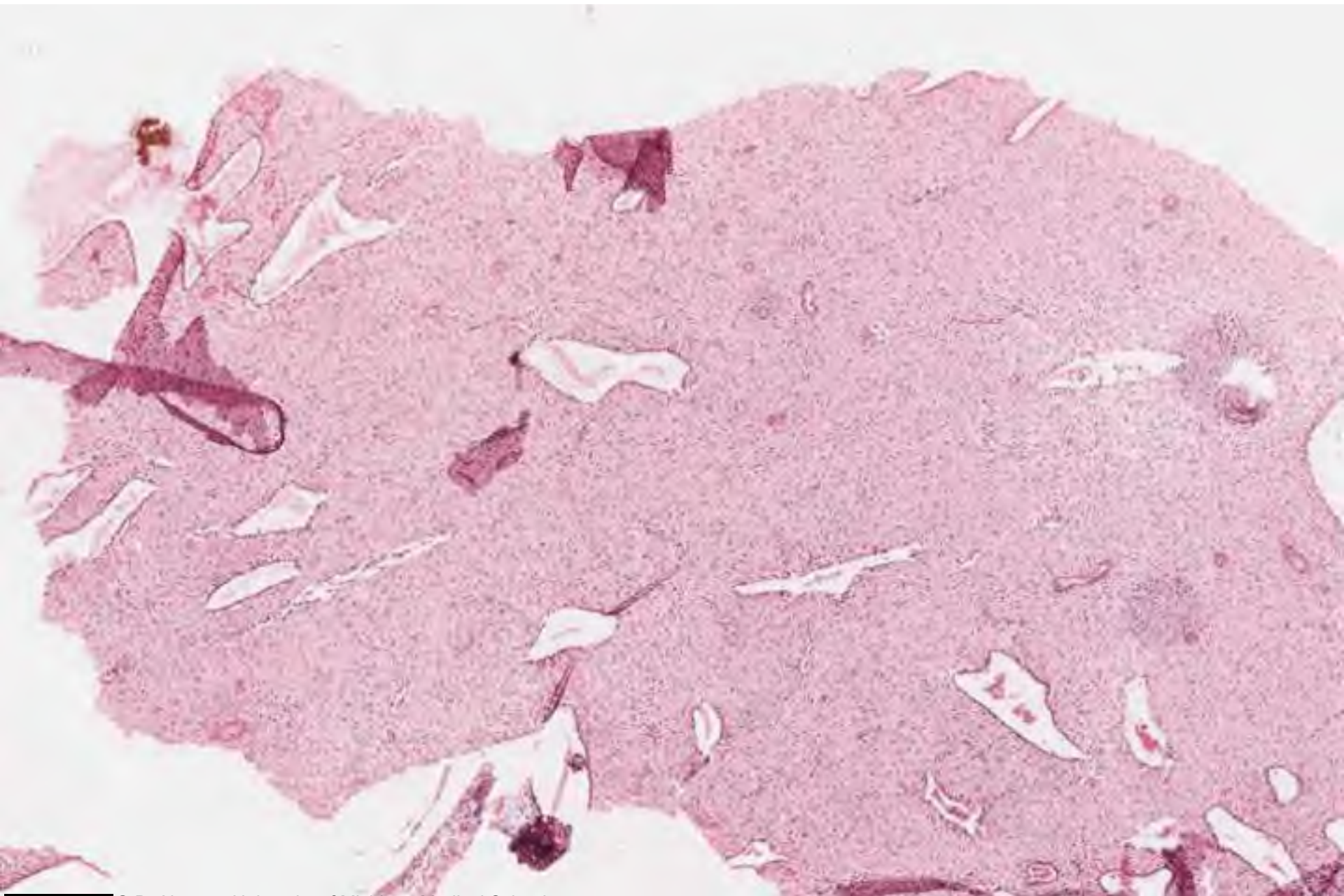
48-year-old on Megace (medroxyprogesterone acetate) for endometrial hyperplasia. A follow-up endometrial biopsy was performed to assess her treatment status.

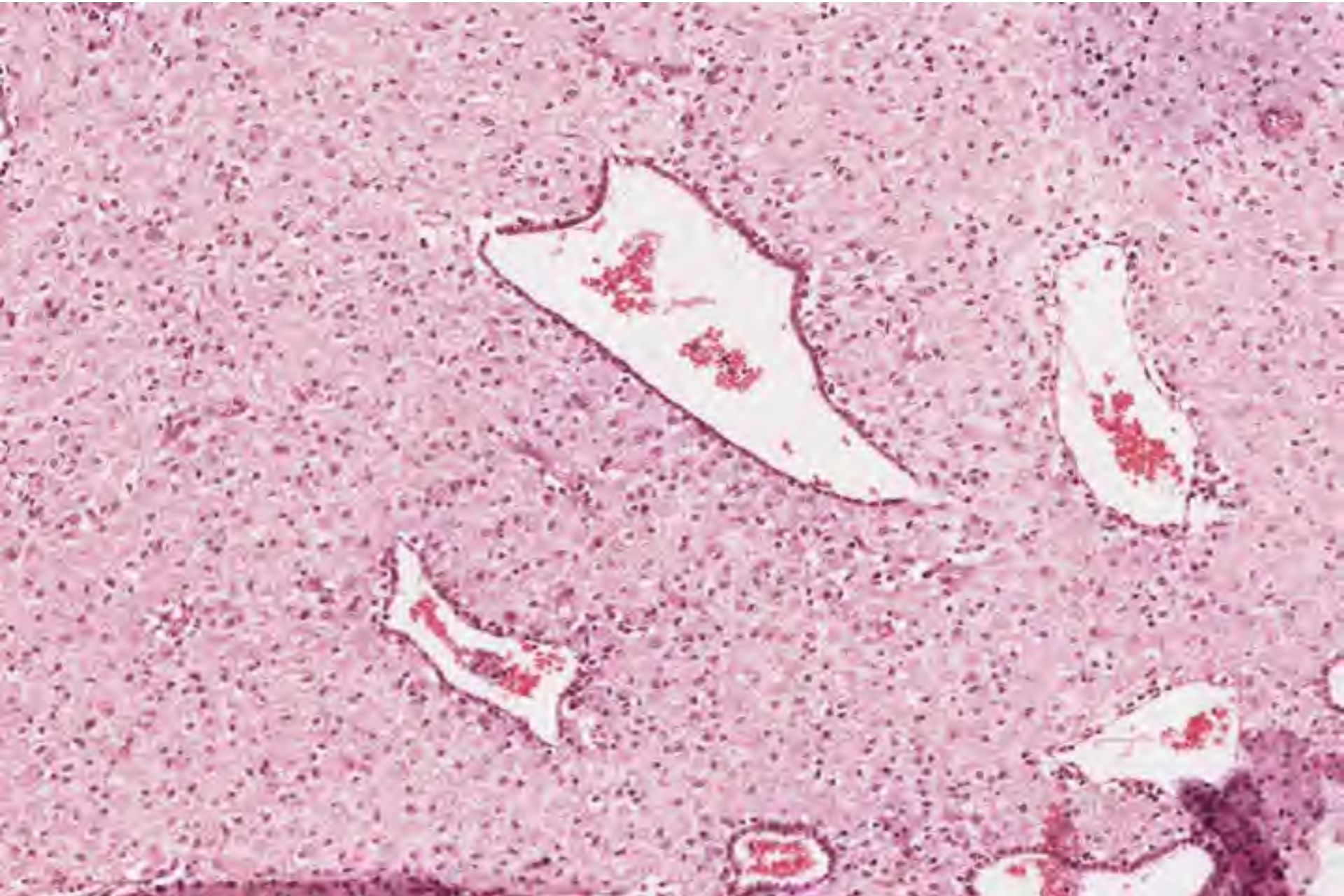
What other medications might also explain the findings seen in this slide?

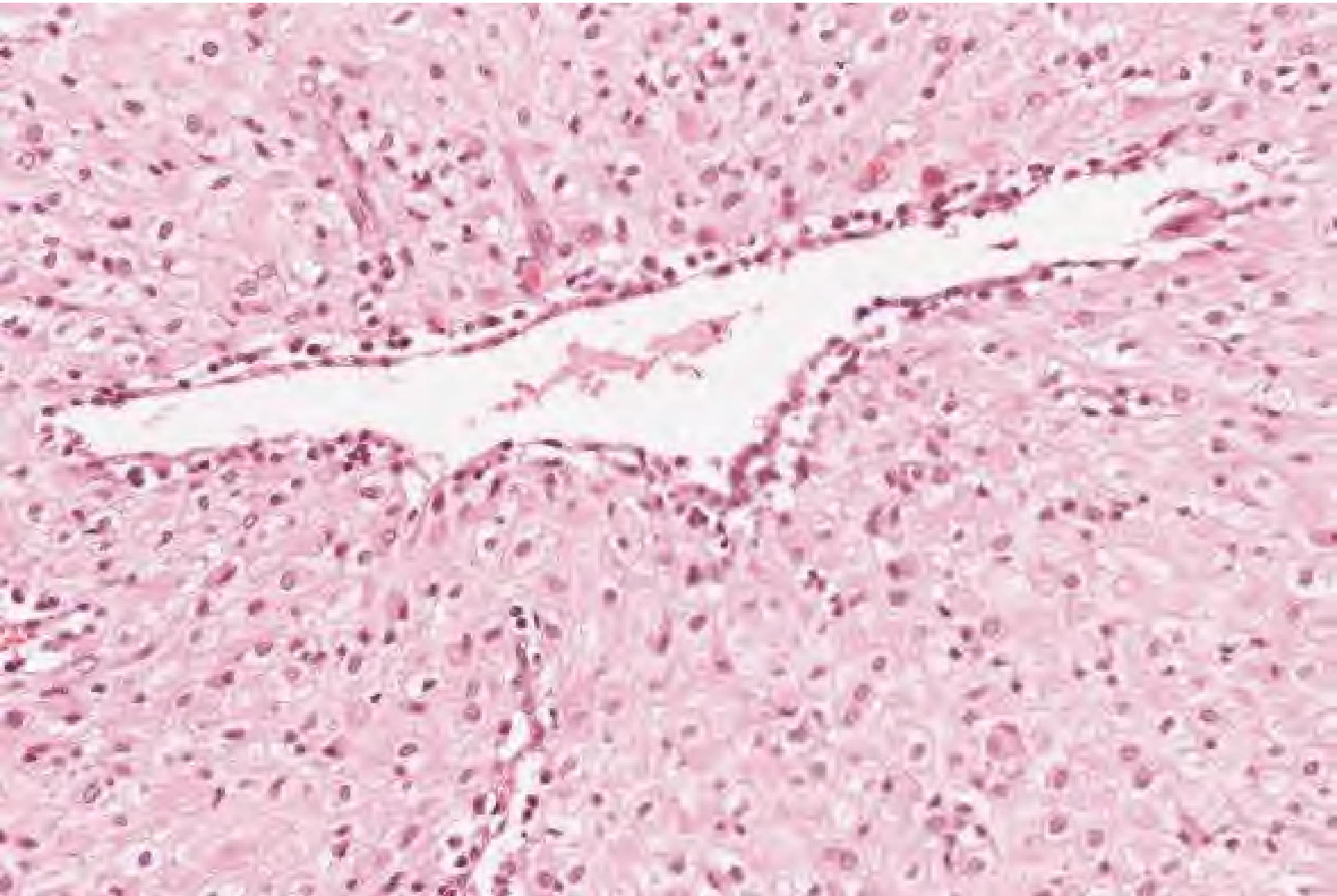
- exogenous progestins
- BCPs

How does this histology differ from gestational endometrium?

- if pregnant: glandular proliferation, glandular secretion, and stromal decidualization



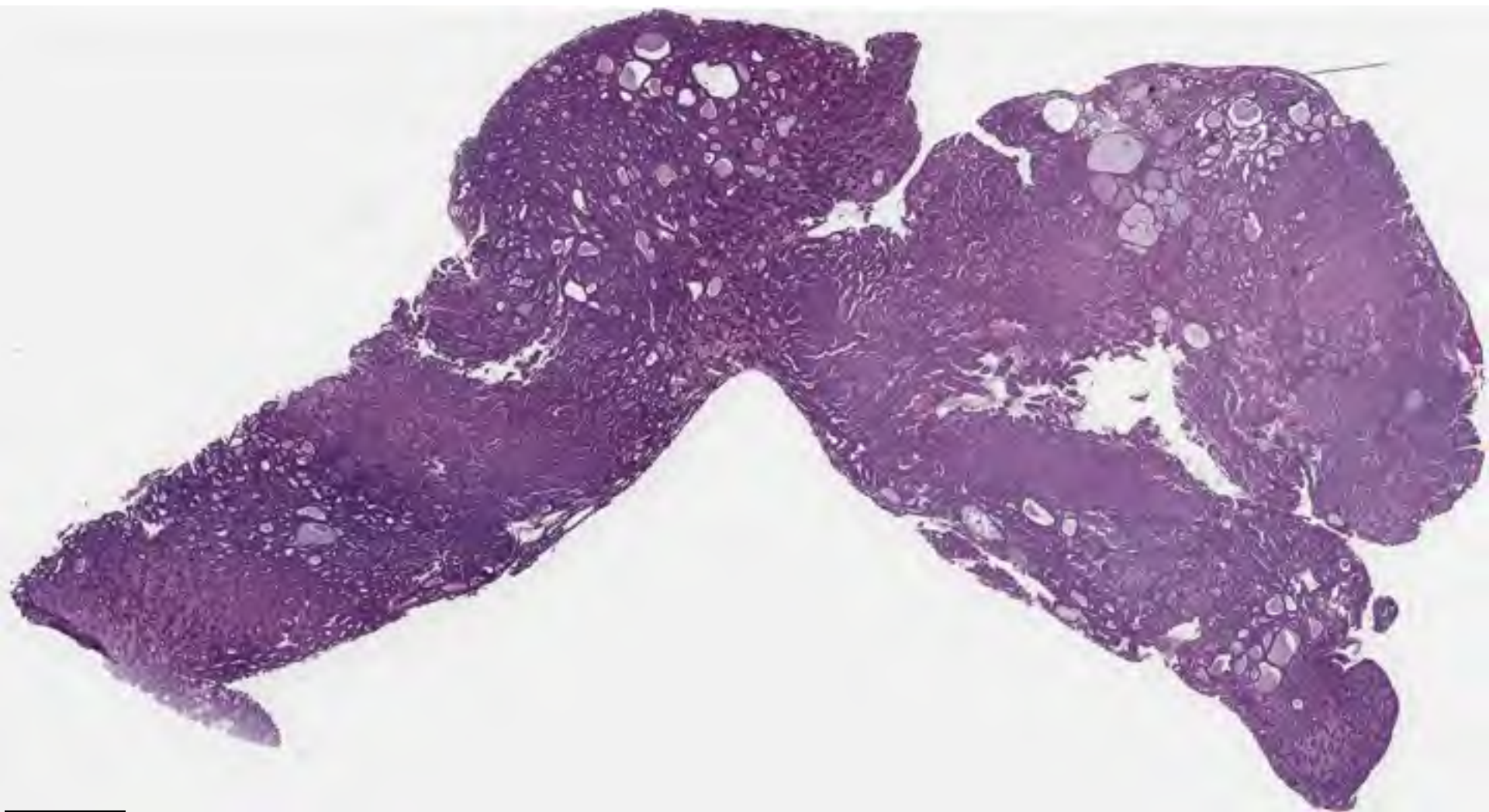


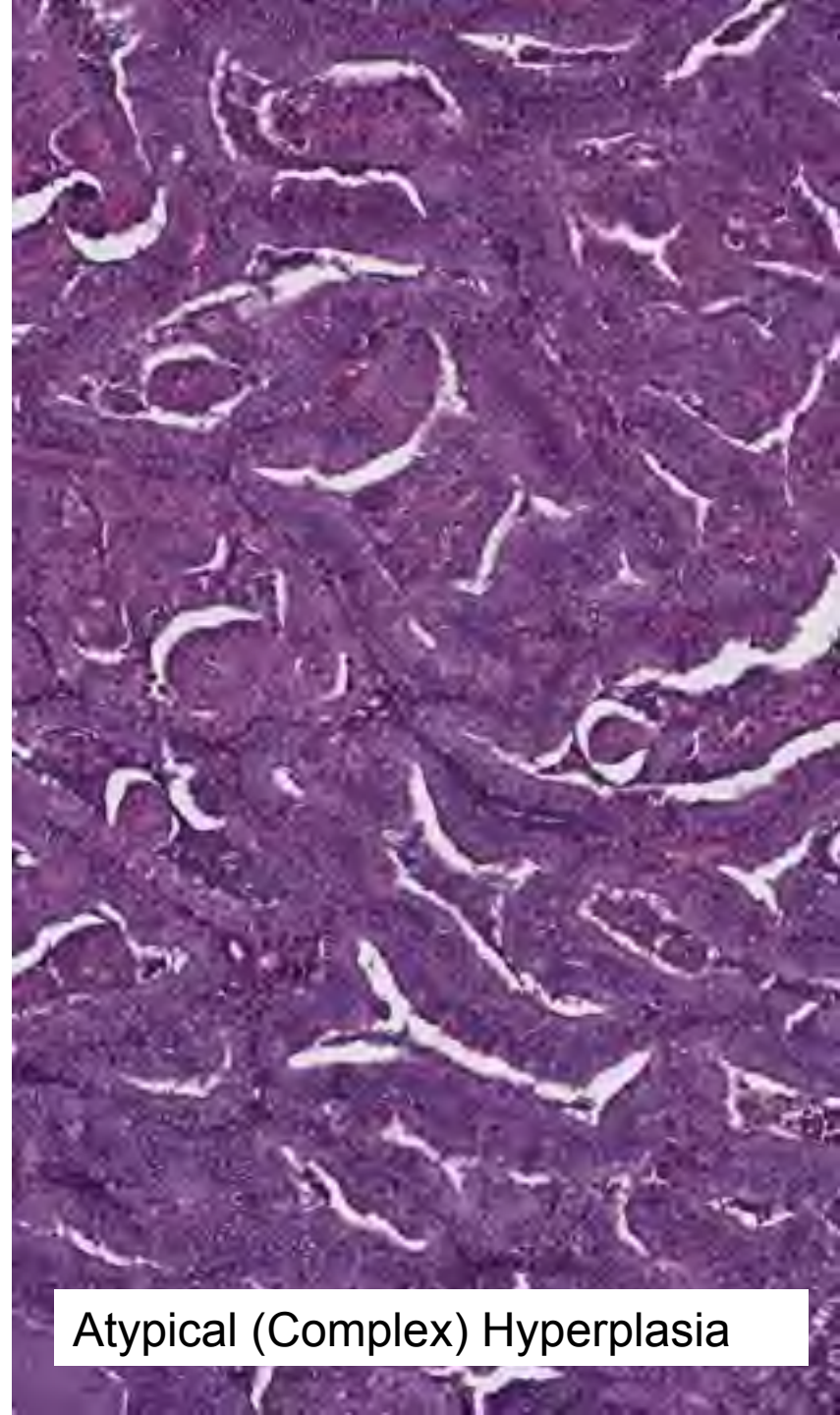
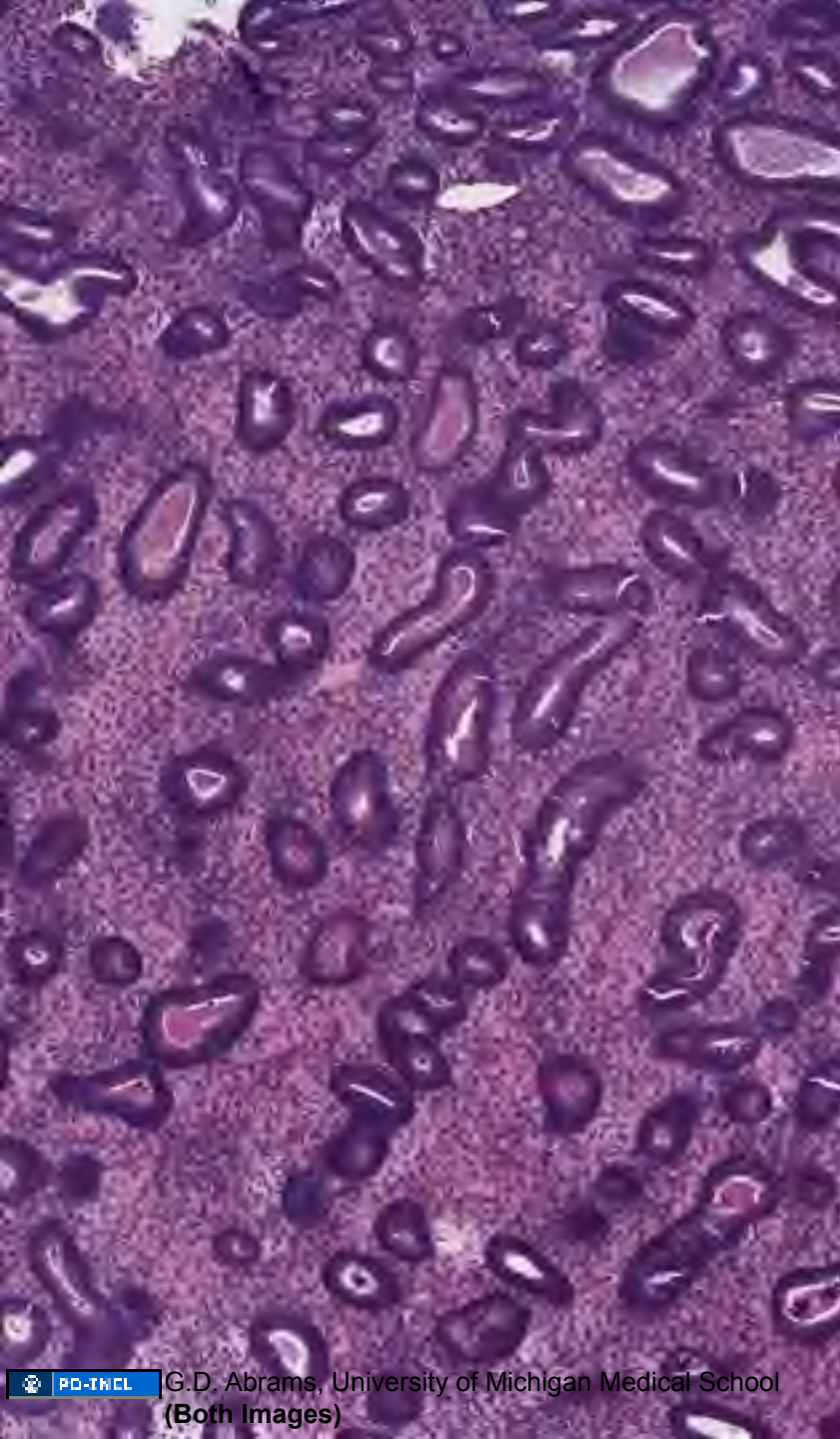


Uterus, Endometrial Curettage

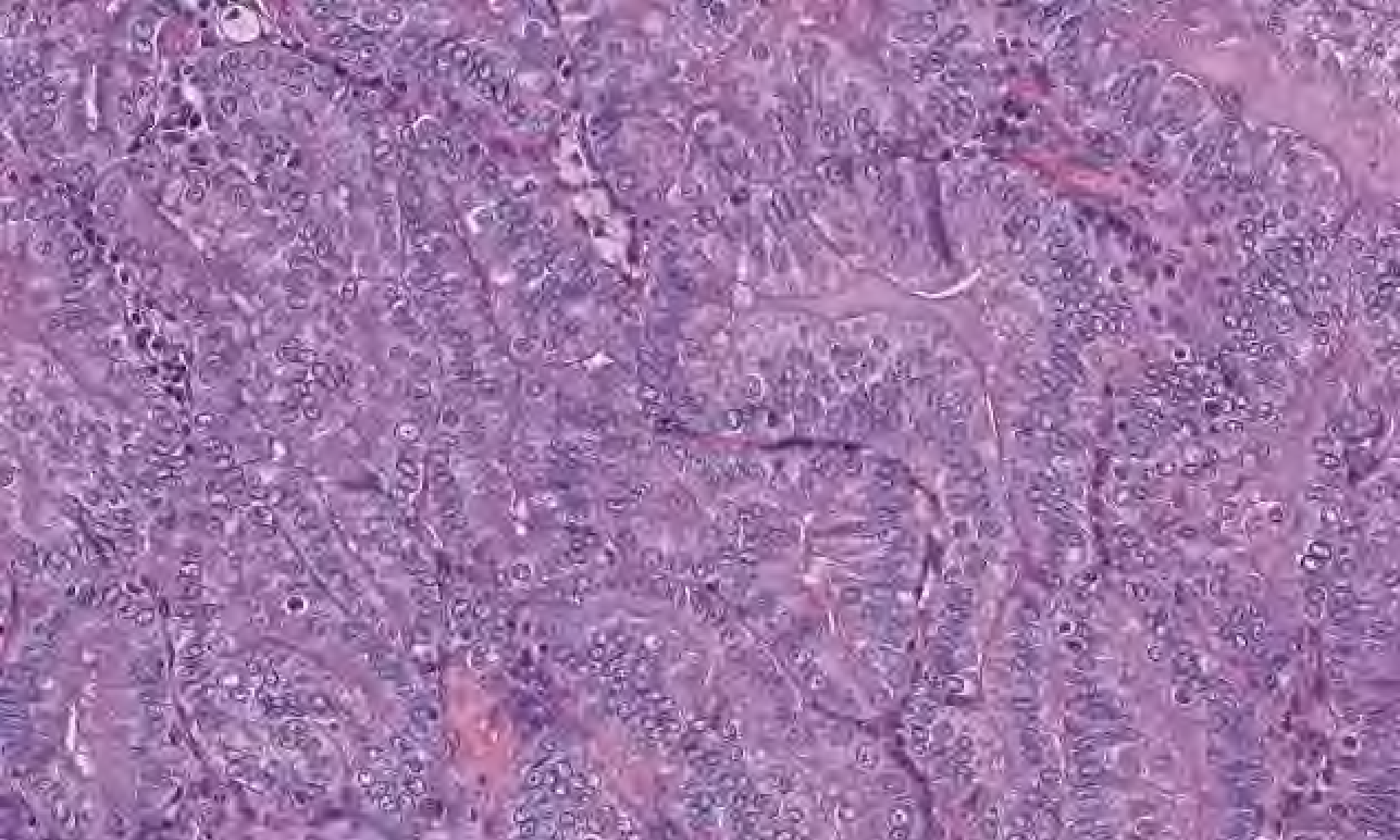
50-year-old with an ultrasound demonstrating thickening of the endometrial stripe.


- proliferative or “disordered” proliferative endometrium
- simple & complex hyperplasia
- atypical hyperplasia
- carcinoma



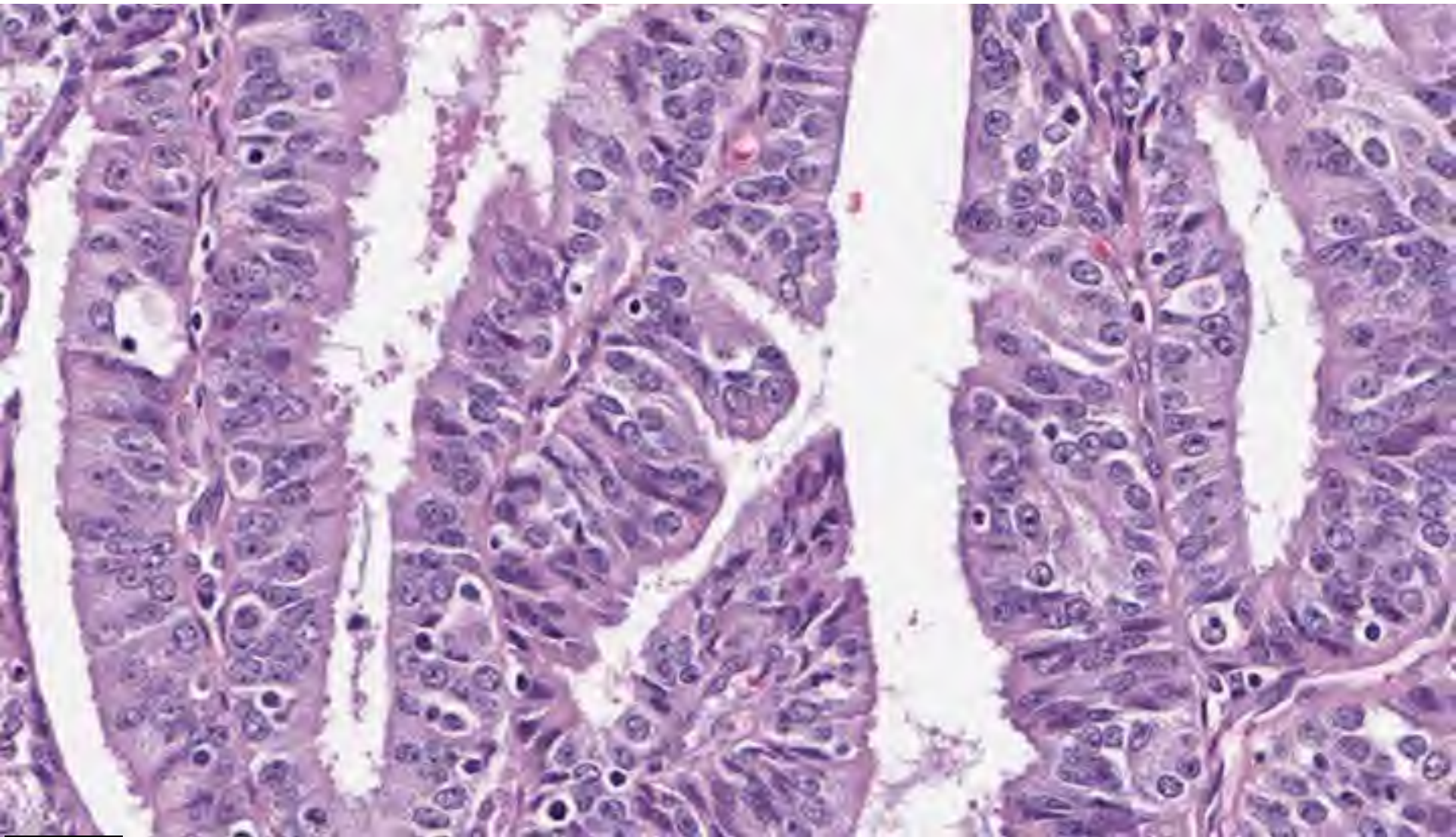


Atypical (Complex) Hyperplasia



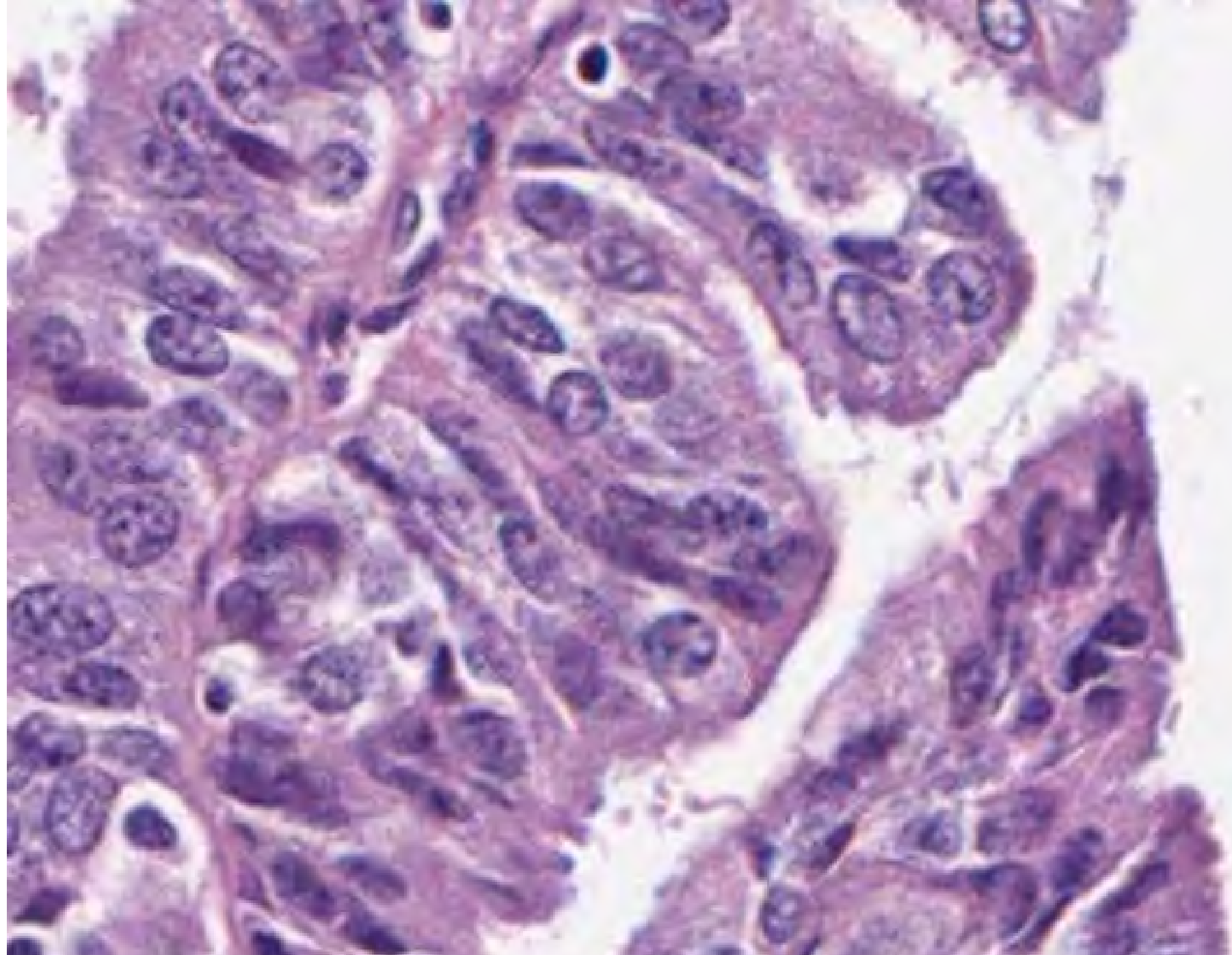
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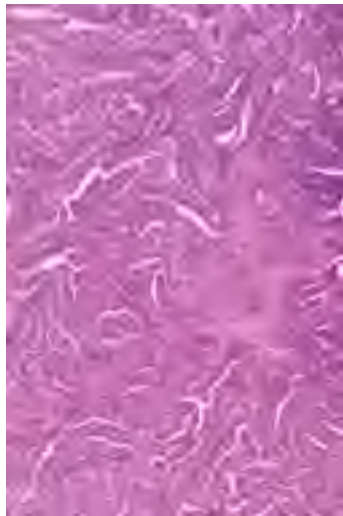
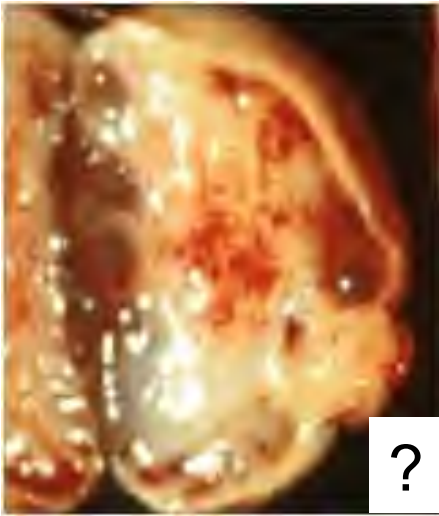
Atypical Complex Hyperplasia



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Endometrial Carcinoma





Endometrial Adenocarcinoma

Polycystic Ovarian Disease

Chronic anovulation



Hyperestrogenism



Proliferative effects on endometrium



Increased risk of hyperplasia and carcinoma

Uterus, Hysterectomy

28-year-old with a history of infertility and an enlarged uterus. The patient underwent myomectomy in an effort to preserve fertility.

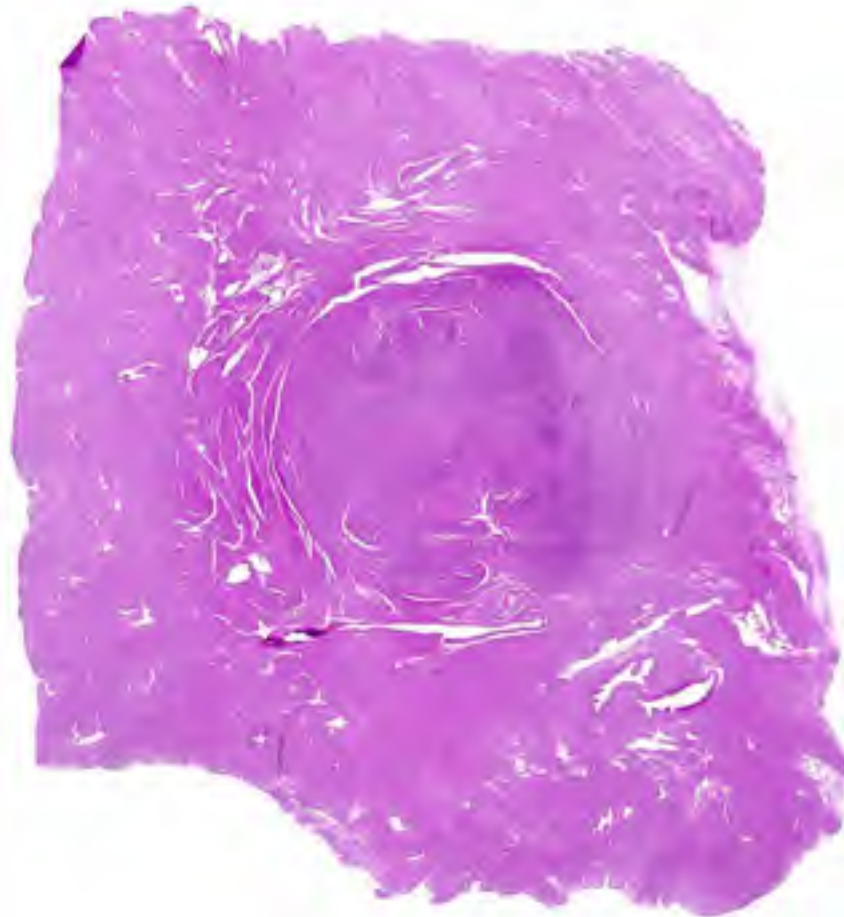
Myomectomy for Fibroids

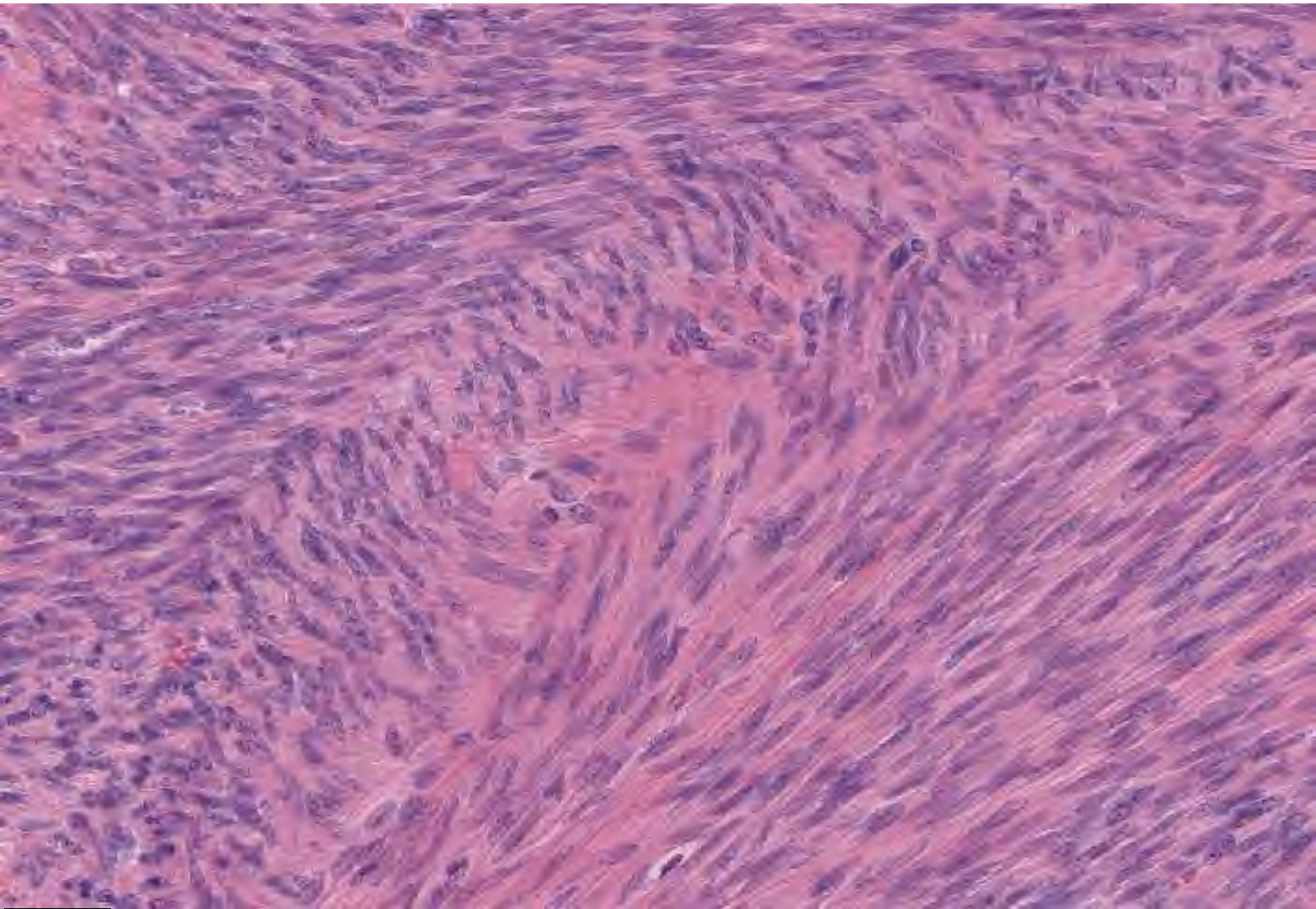


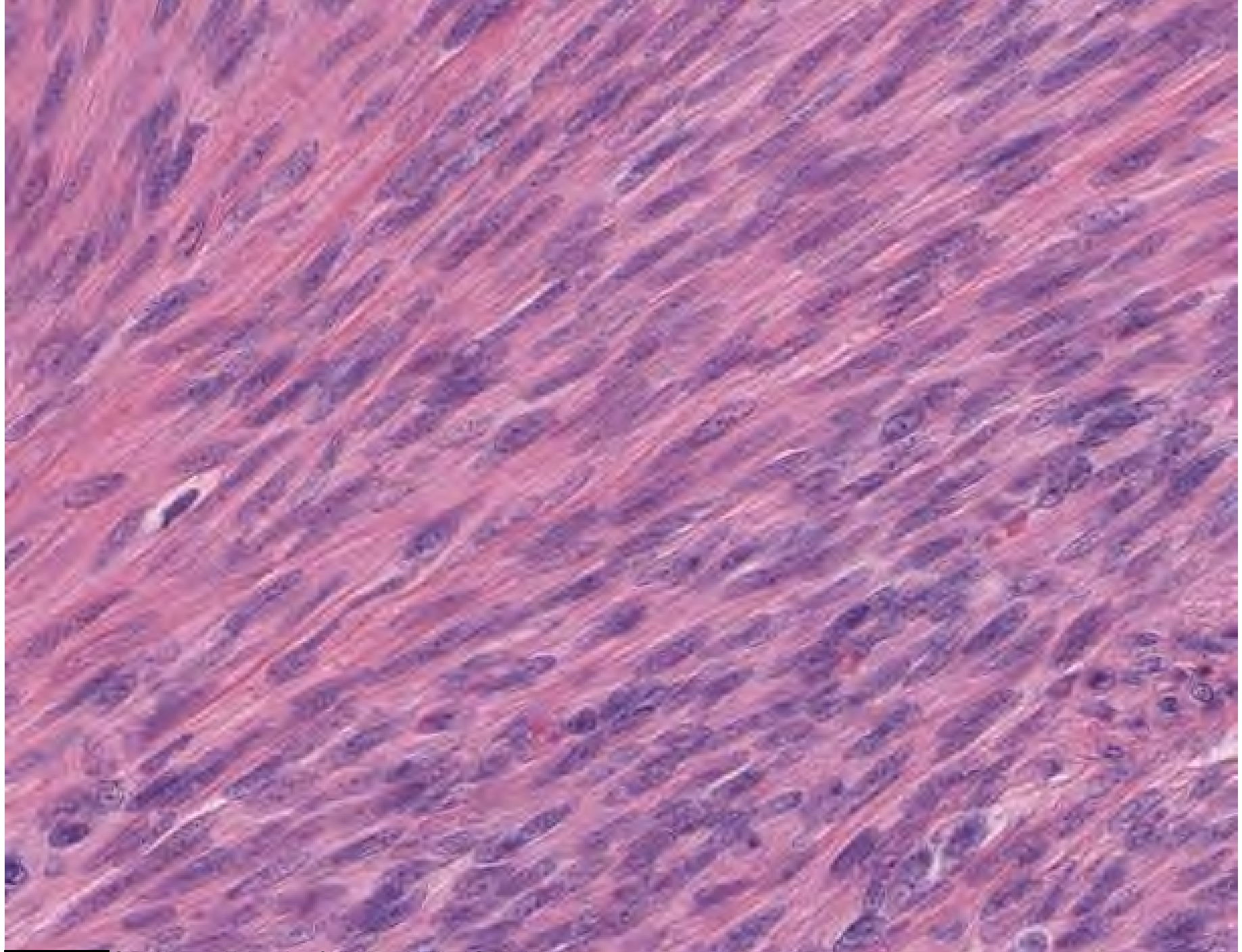
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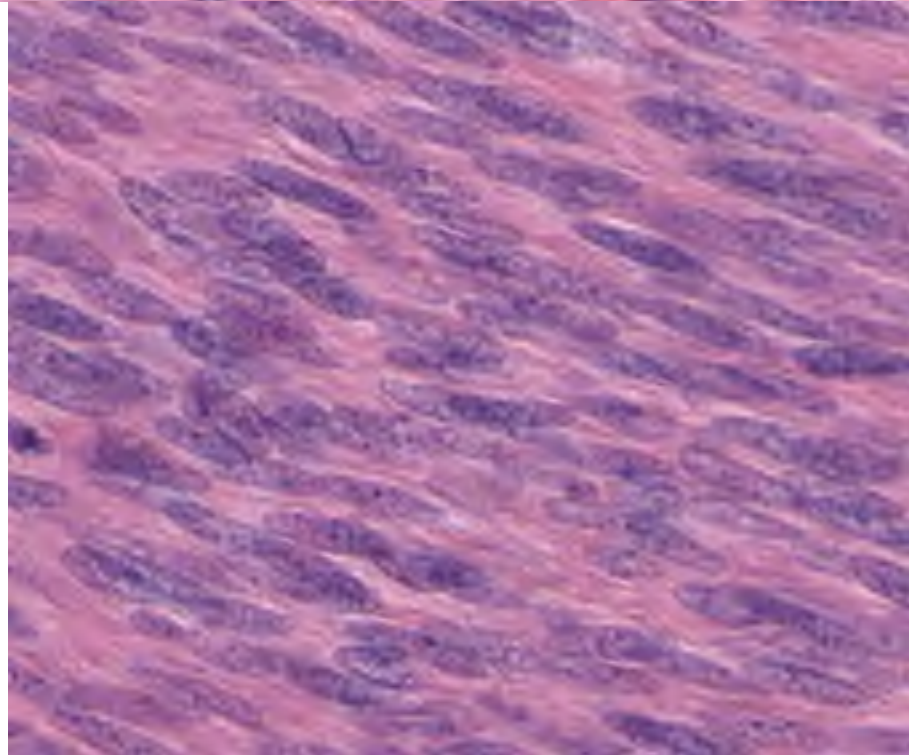
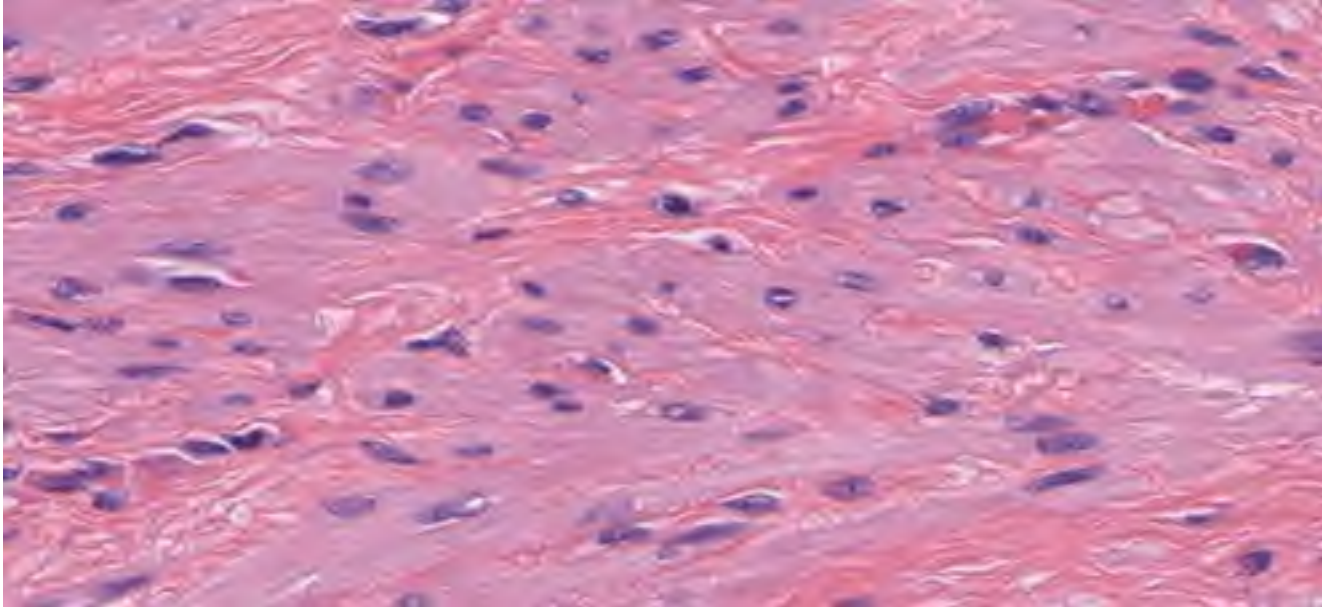
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Leiomyoma









Leiomyoma

Symptoms

asymptomatic

pelvic “pressure”

urinary incontinence

irregular uterine bleeding

infertility

pelvic pain

dyspareunia

Enlarge with pregnancy

Smaller with menopause and GNRH
agonists-antagonists

Benign Leiomyoma (Fibroid) Uteri: Histologic Keys

- Solid spindle cell proliferation
 - “cigar” shaped nuclei, no atypia
 - rare mitotic activity
 - storiform areas, interlacing fascicles
- Hormonally sensitive
 - estrogen and progesterone

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