Renal Pathology lab

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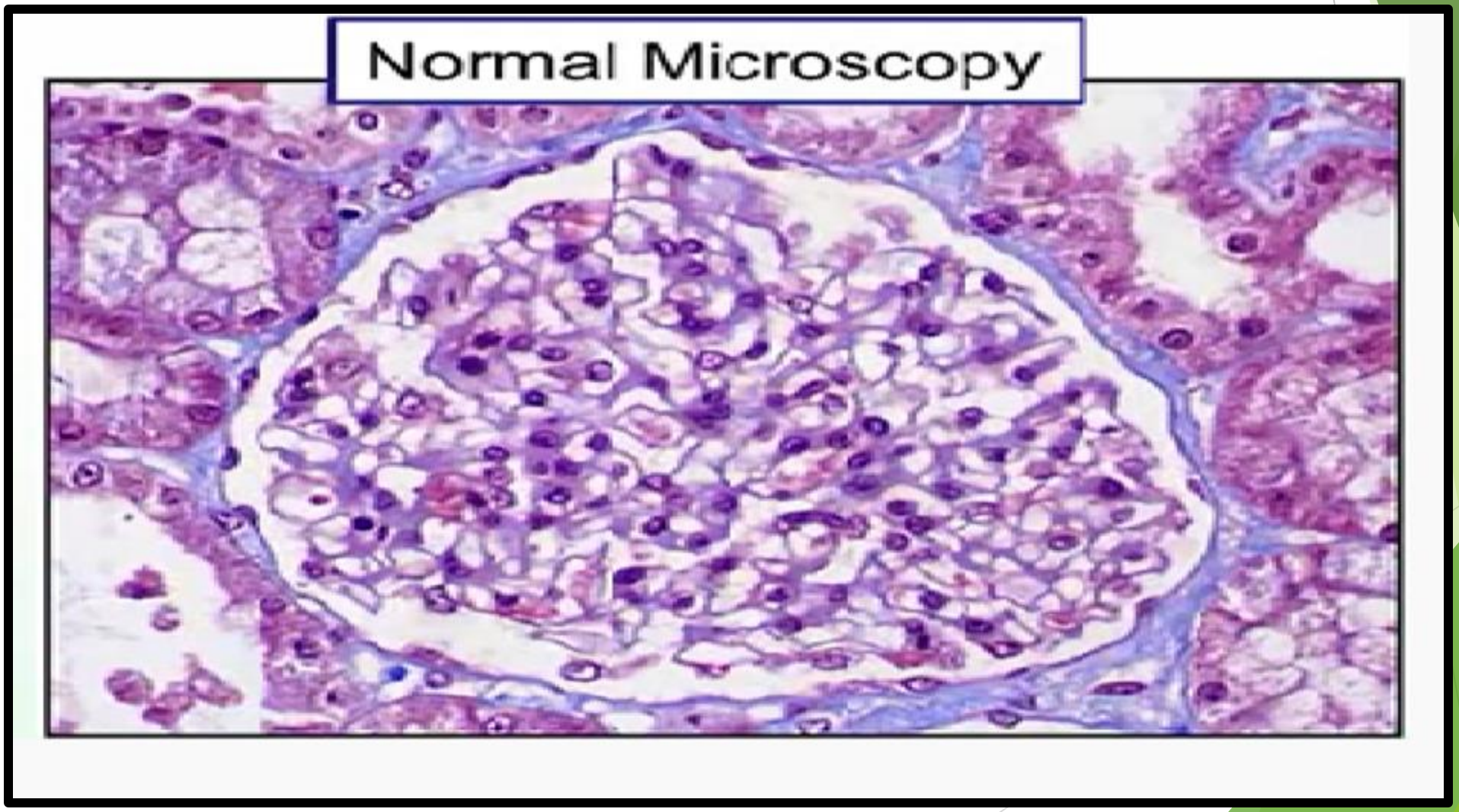
Minimal Change Disease



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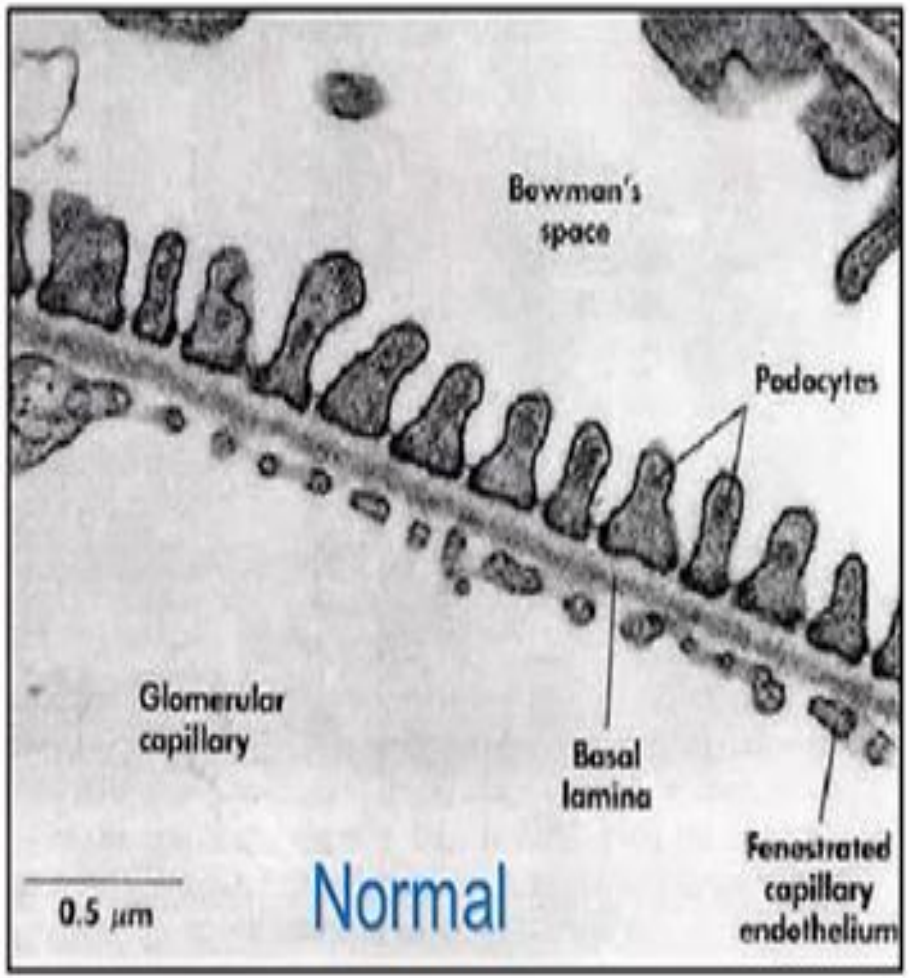
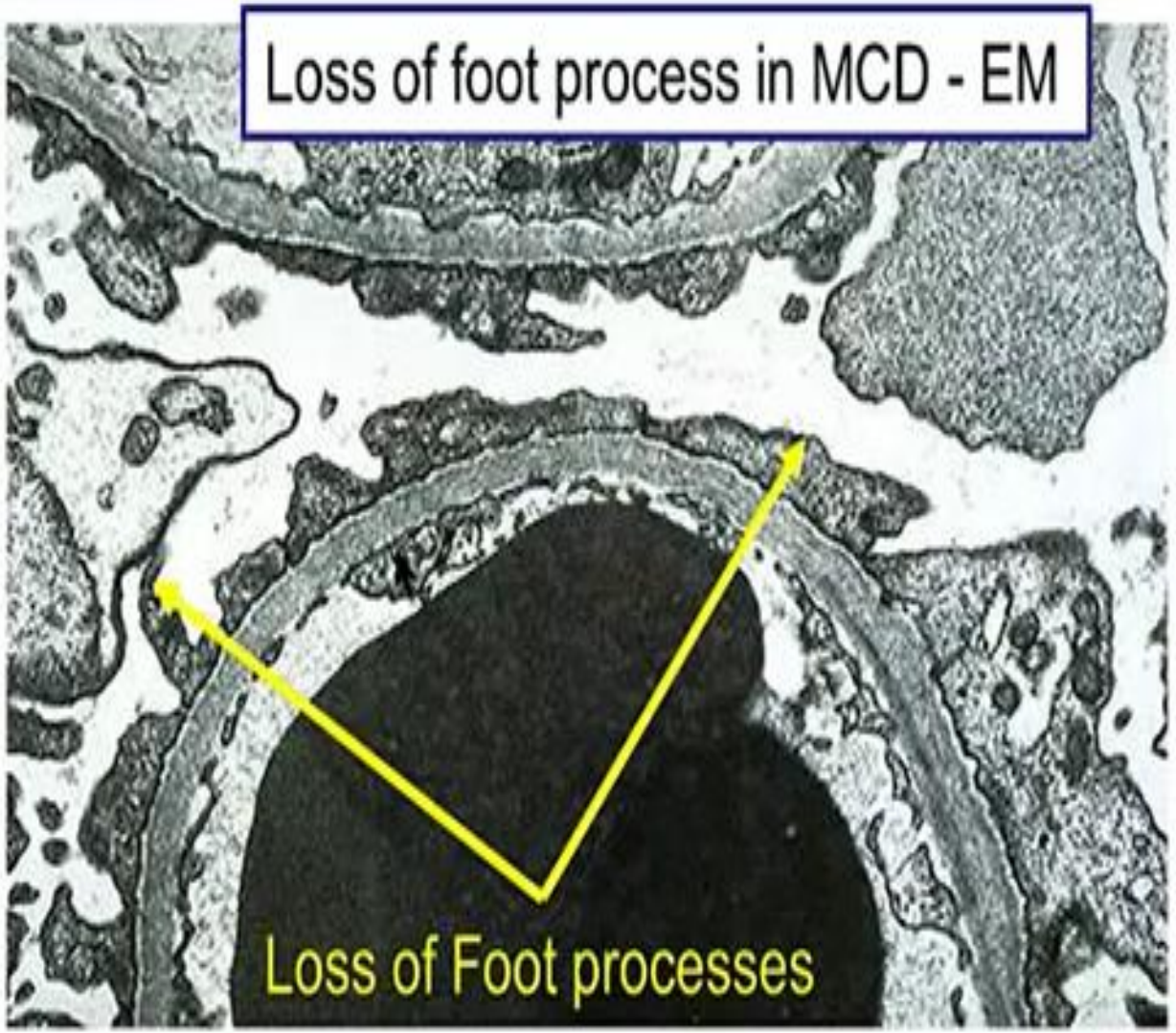
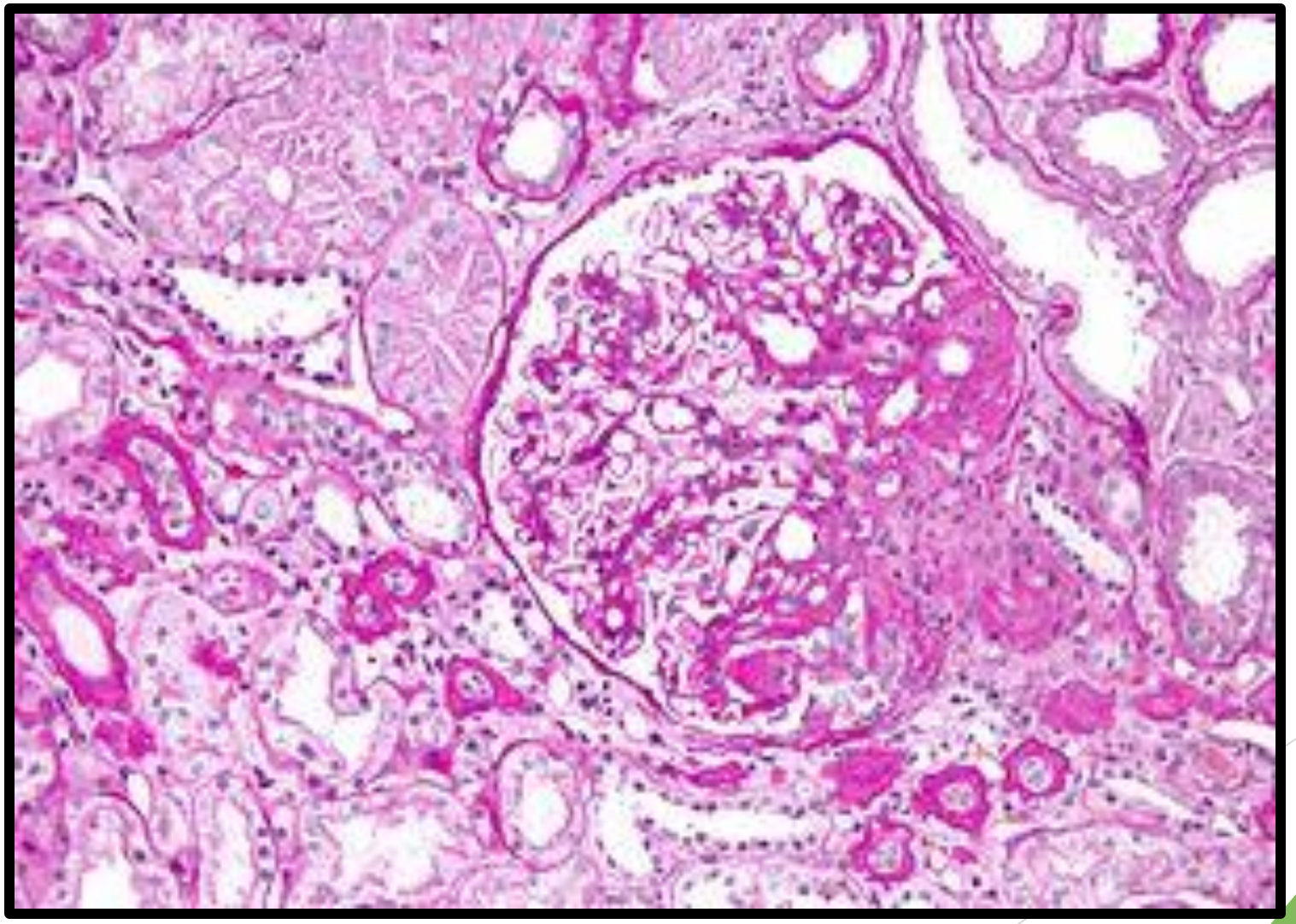
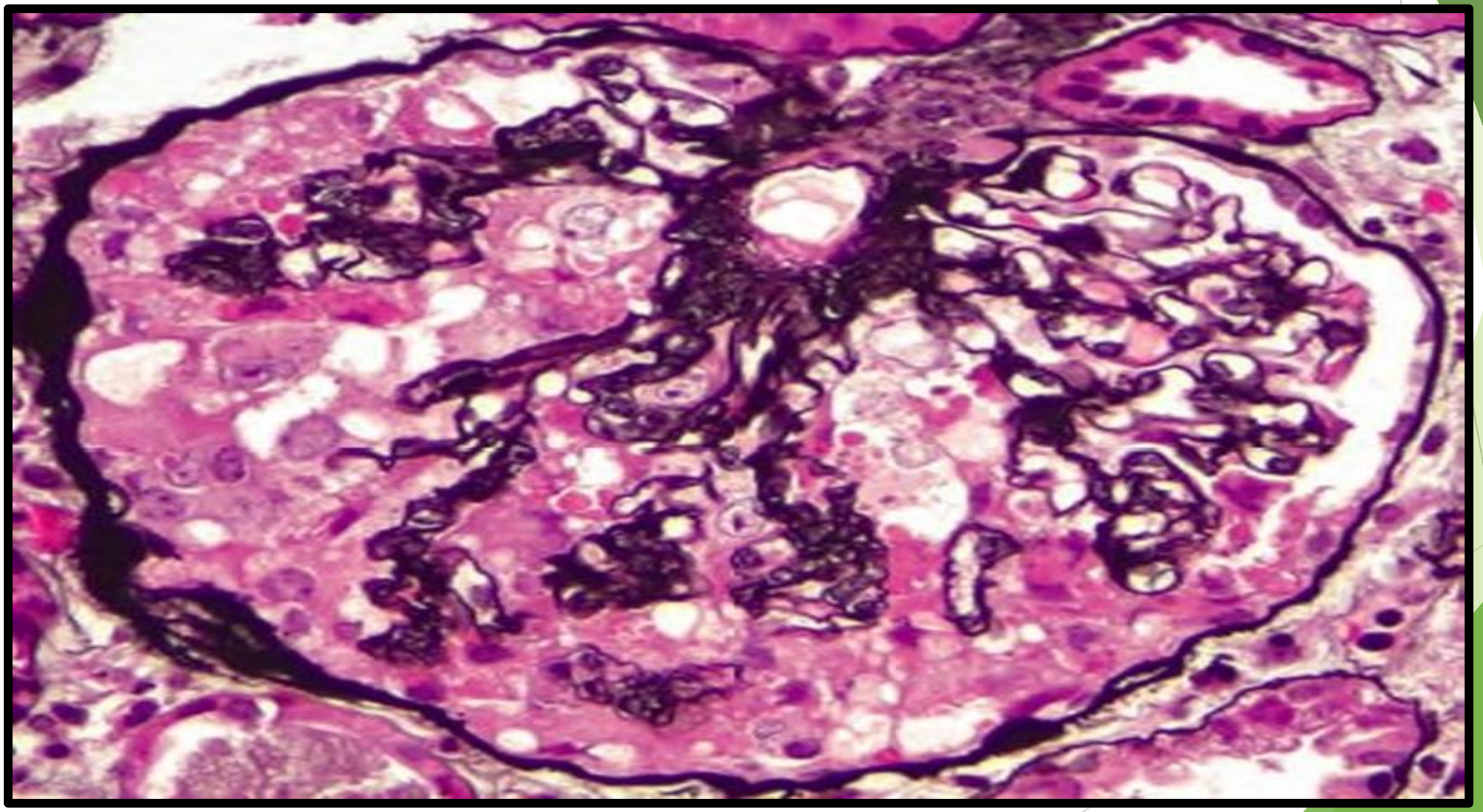




FOCAL SEGMENTAL GLOMERULOSCLEROSIS (FSGS)



FSGS - Morphology



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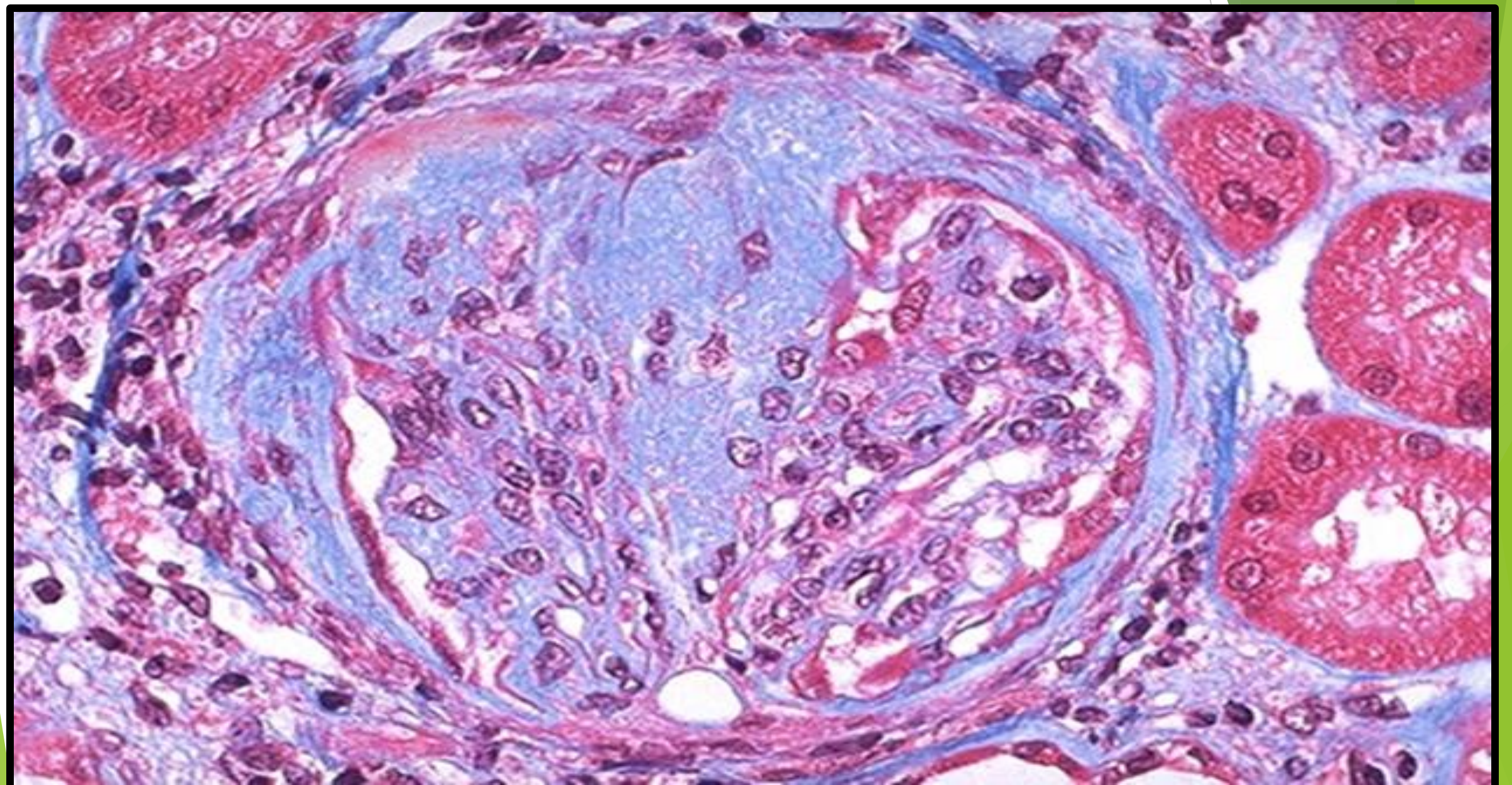
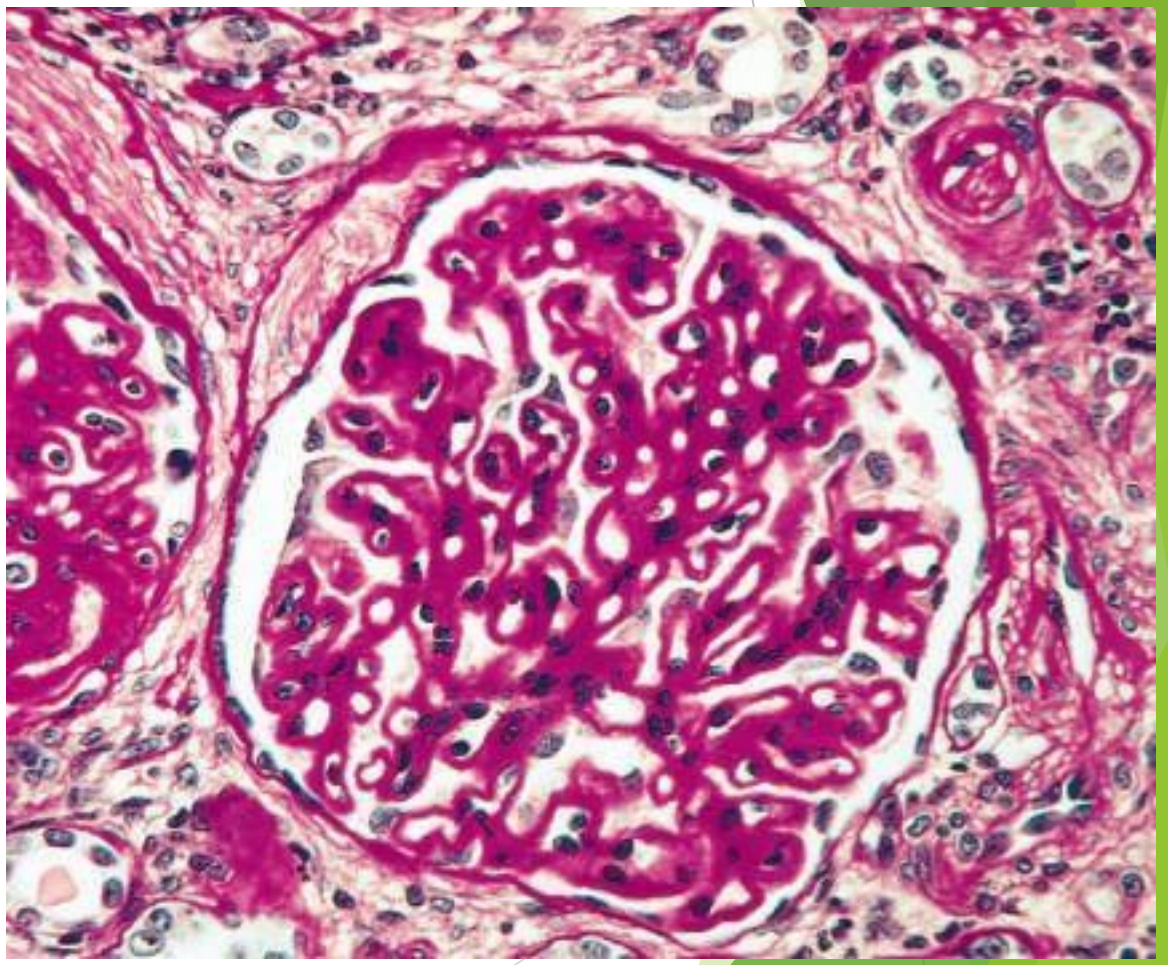


Membranous GN

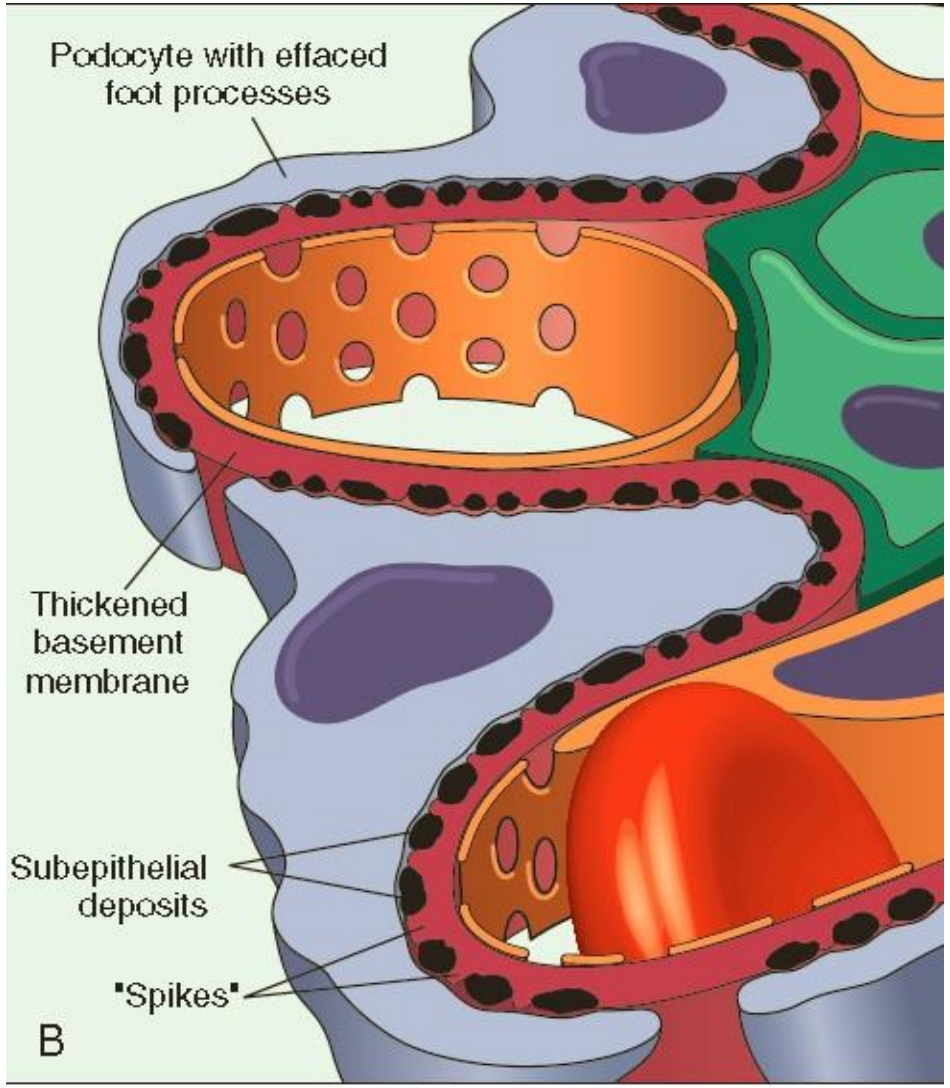
The main histologic feature is **diffuse thickening** of the capillary wall (GBM glomerular basement PAS stain

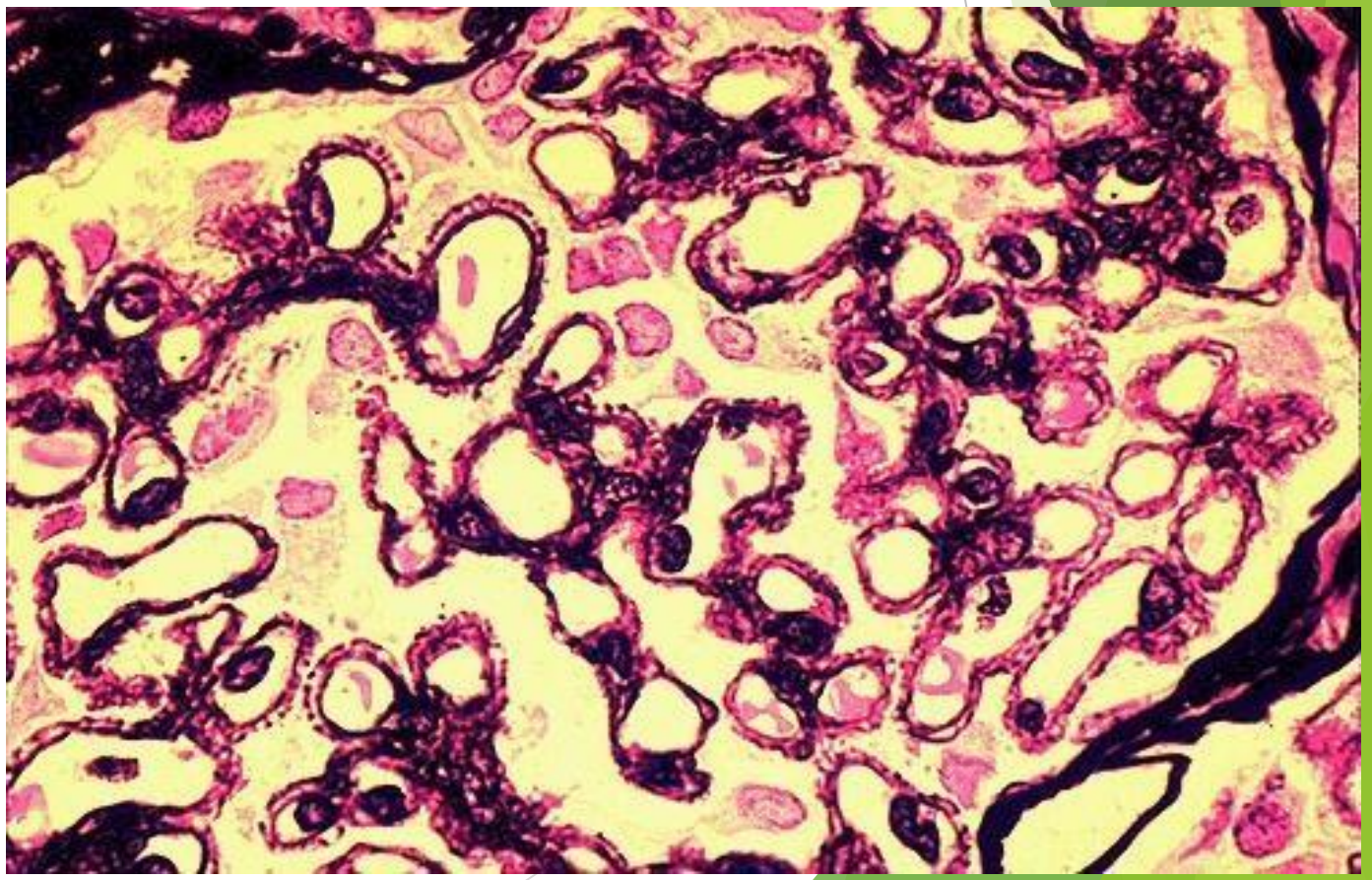


Membranous GN

EM reveals that thickening is caused by **subepithelial** deposits, which nestle against the GBM & are separated from each other by small, spike-like protrusions of GBM matrix that form in reaction to the deposits (**spike & dome pattern**)

Membranous GN



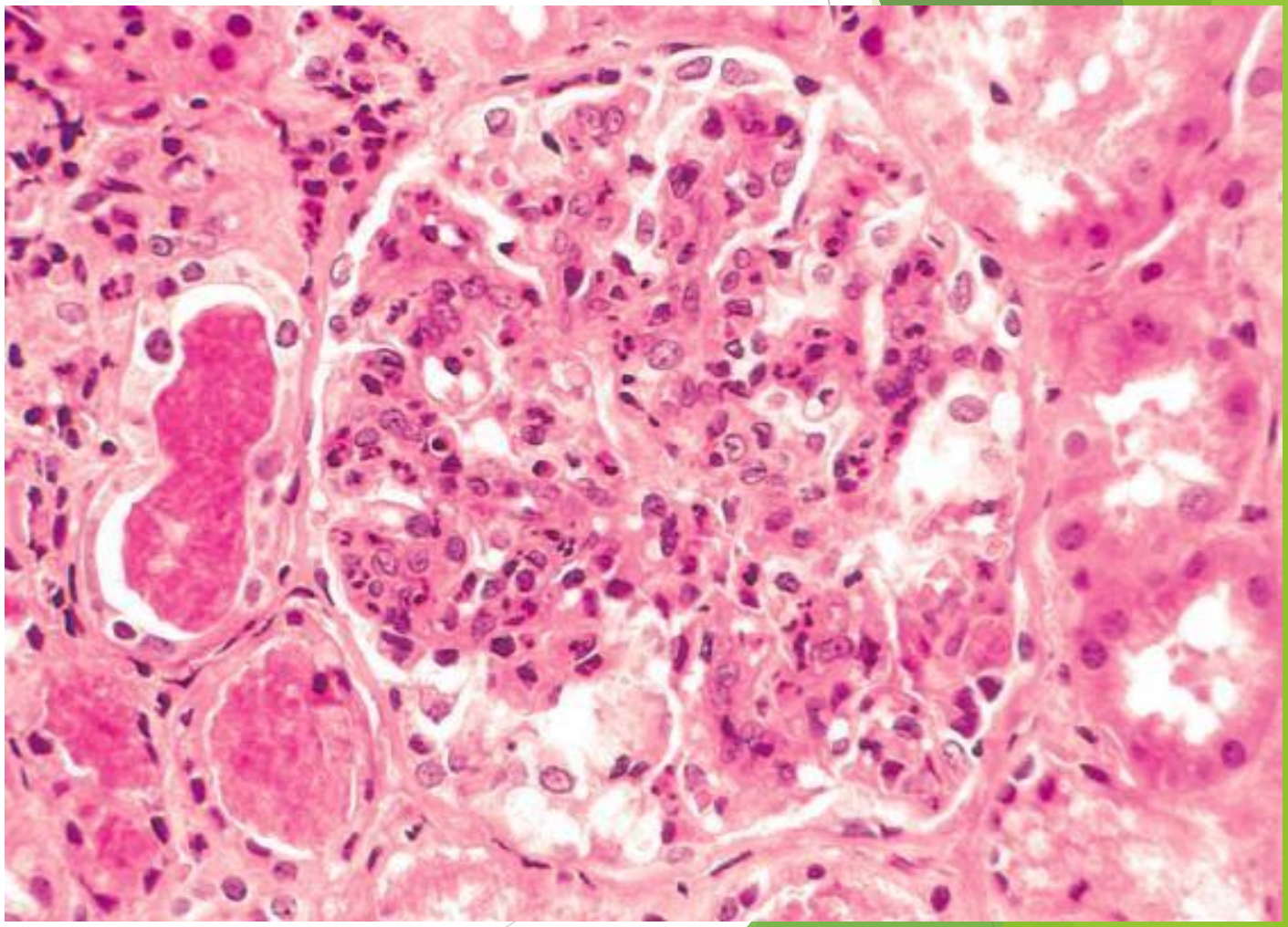


Post infectious GN
LM morphology

Most characteristic change increased cellularity of all glomeruli (nearly all glomeruli) caused by

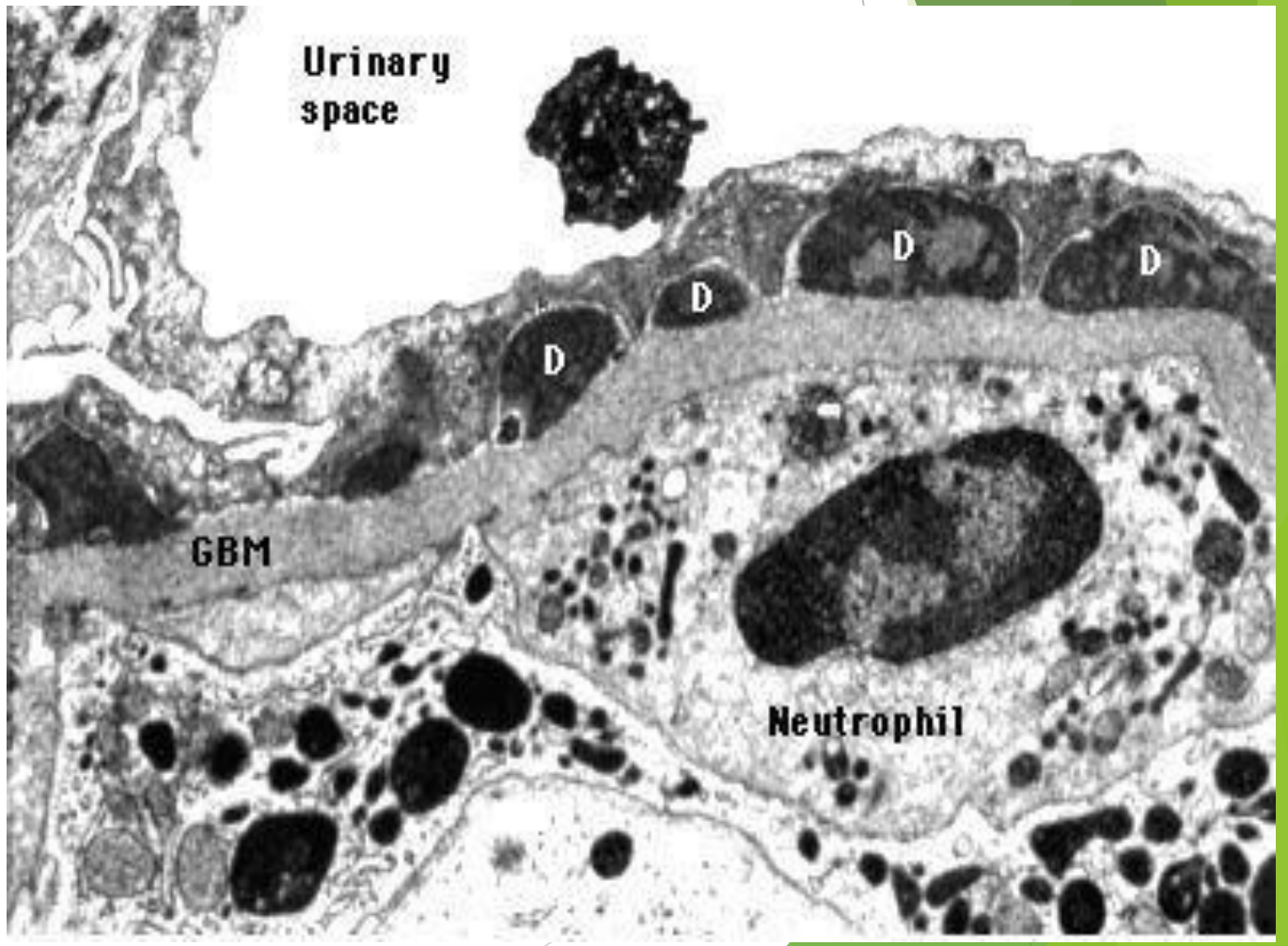
(1) proliferation & swelling of endothelial & mesangial cells

(2)by infiltrating neutrophils & monocytes.



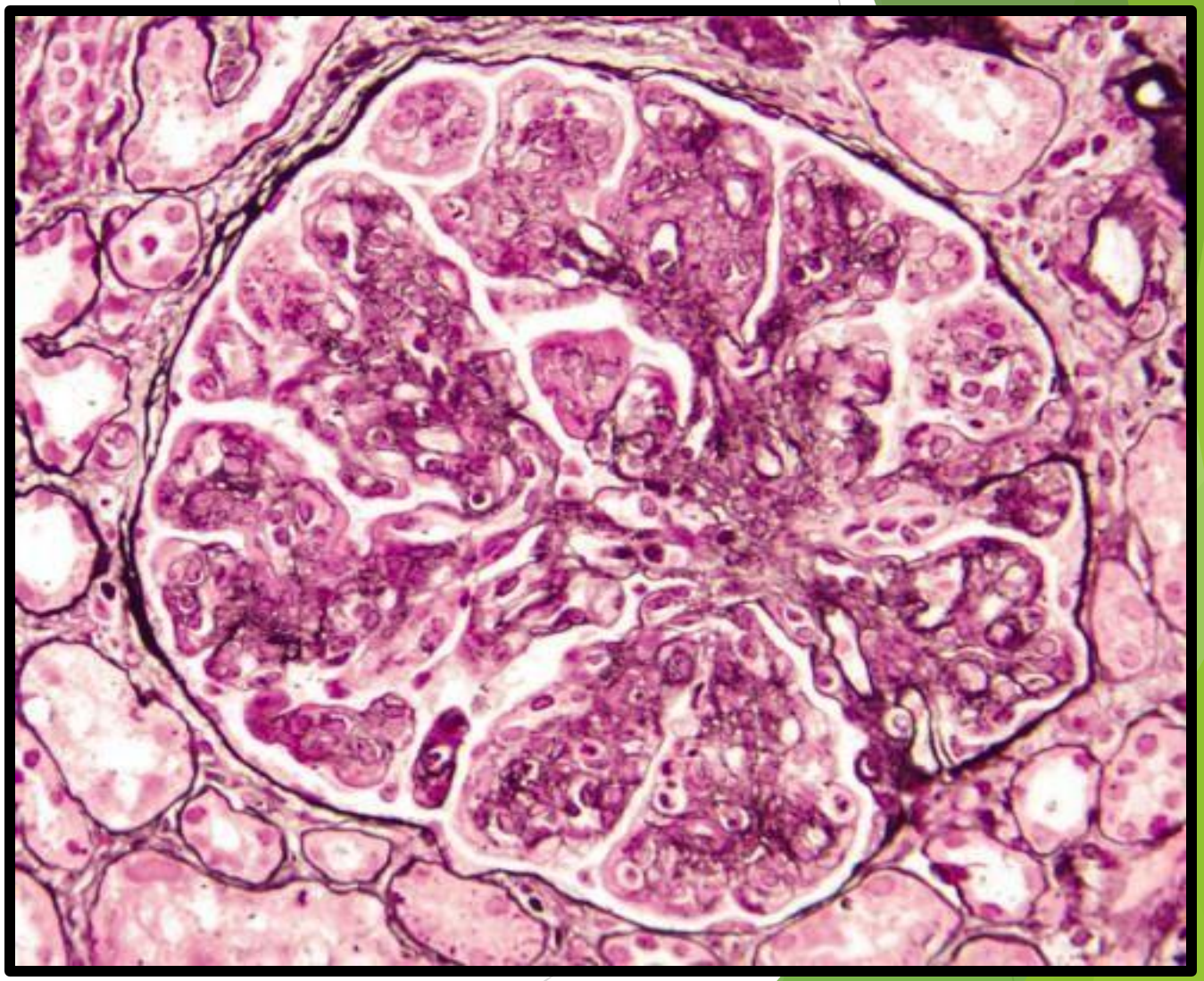
Post infectious GN
EM morphology

EM: shows deposited immune complexes as **subepithelial "humps"** (on the epithelial side of GBM)
IF: scattered granular deposits of IgG & complement within the capillary walls



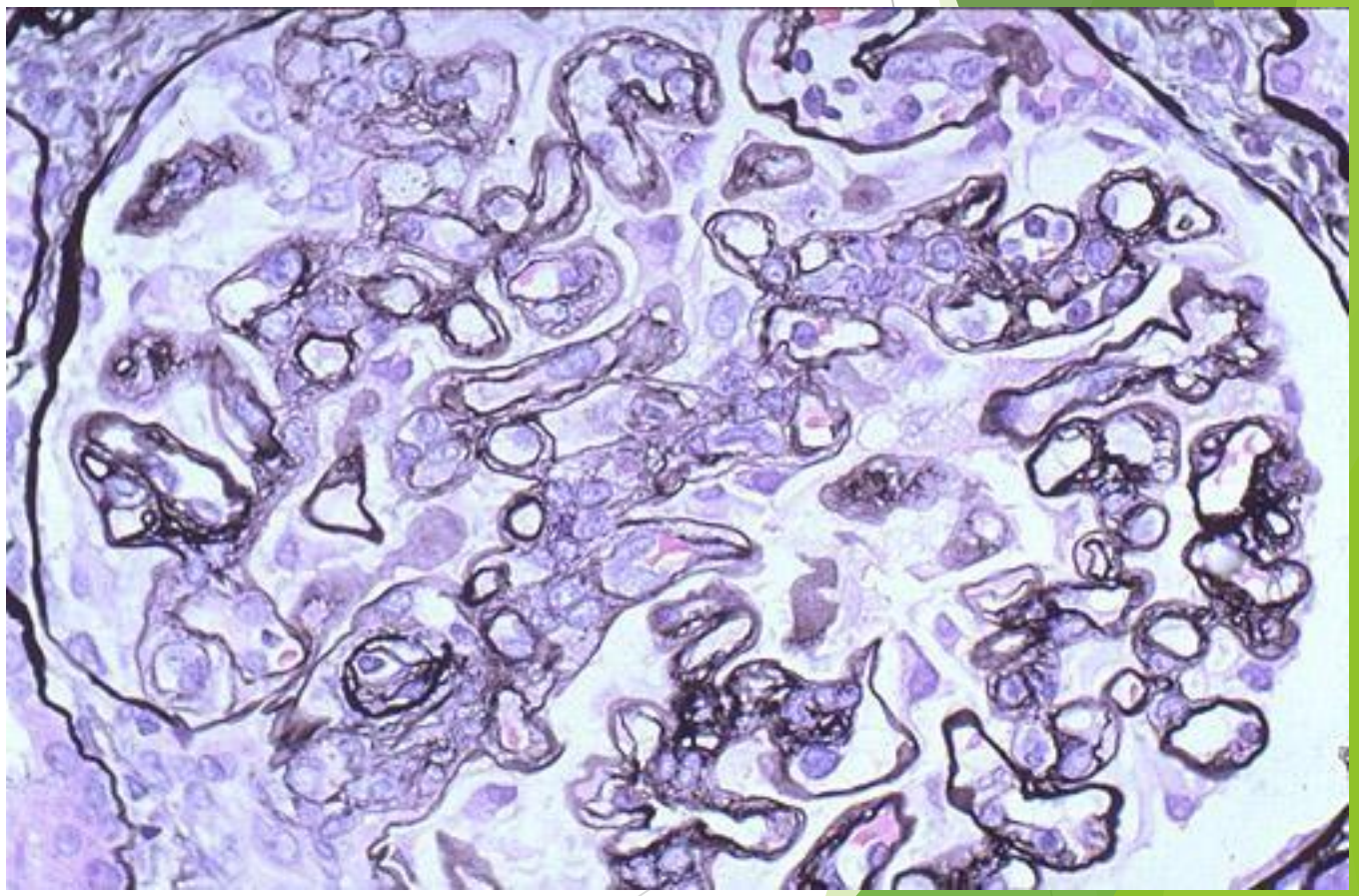
Membranoproliferative (mesangiocapillary) GN MPGN

Glomeruli are large, have an accentuated **lobular** appearance; proliferation of mesangial & endothelial cells as well as infiltrating leukocytes



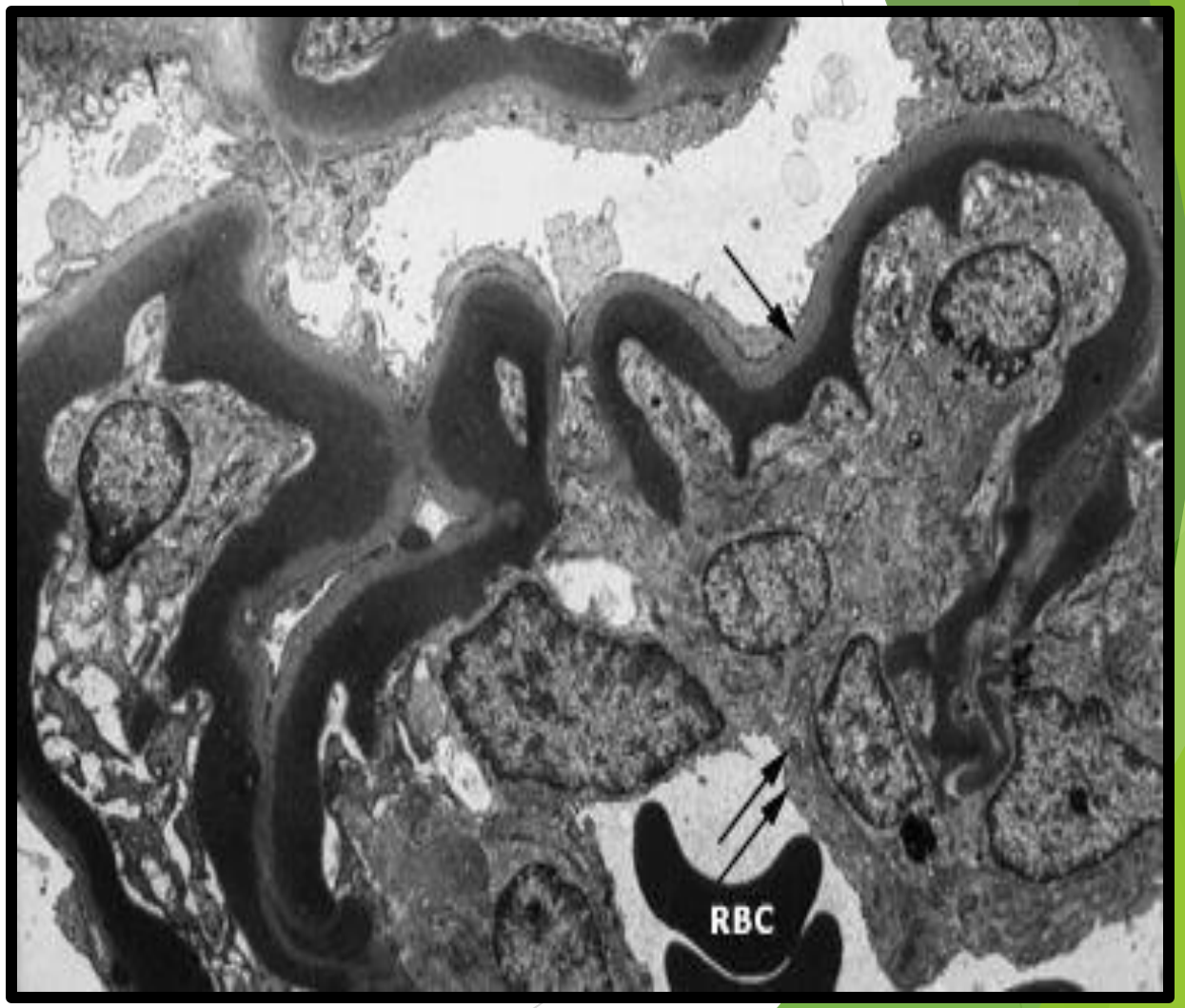
MPGN
LM morphology

The GBM is thickened, and the glomerular capillary wall often shows a **double contour**, or "**tram track**," appearance, especially evident with use of silver



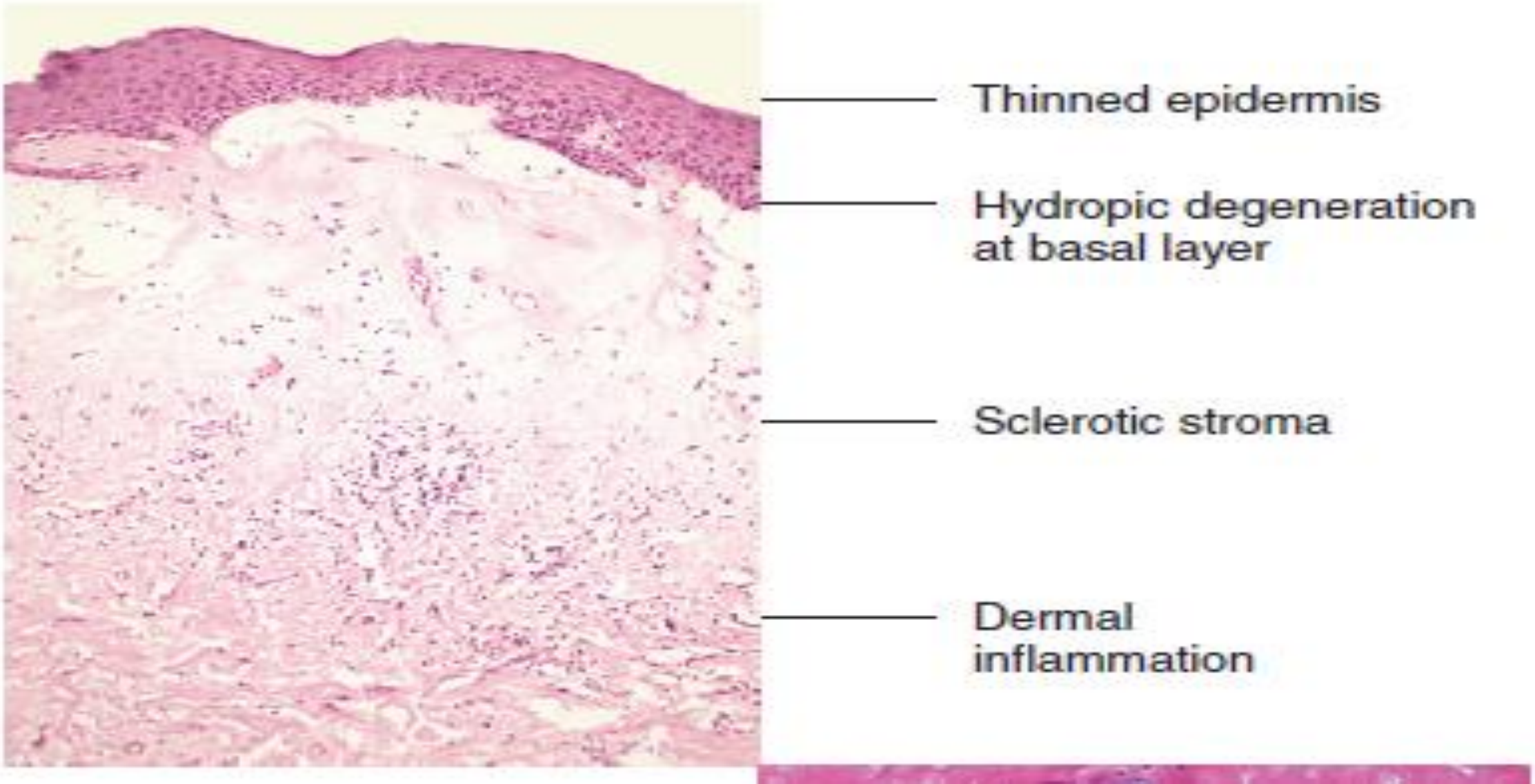
MPGN II/ DDD

There are **dense** homogeneous deposits within the basement membrane. **Ribbon-like appearance** of subendothelial & intramembranous material

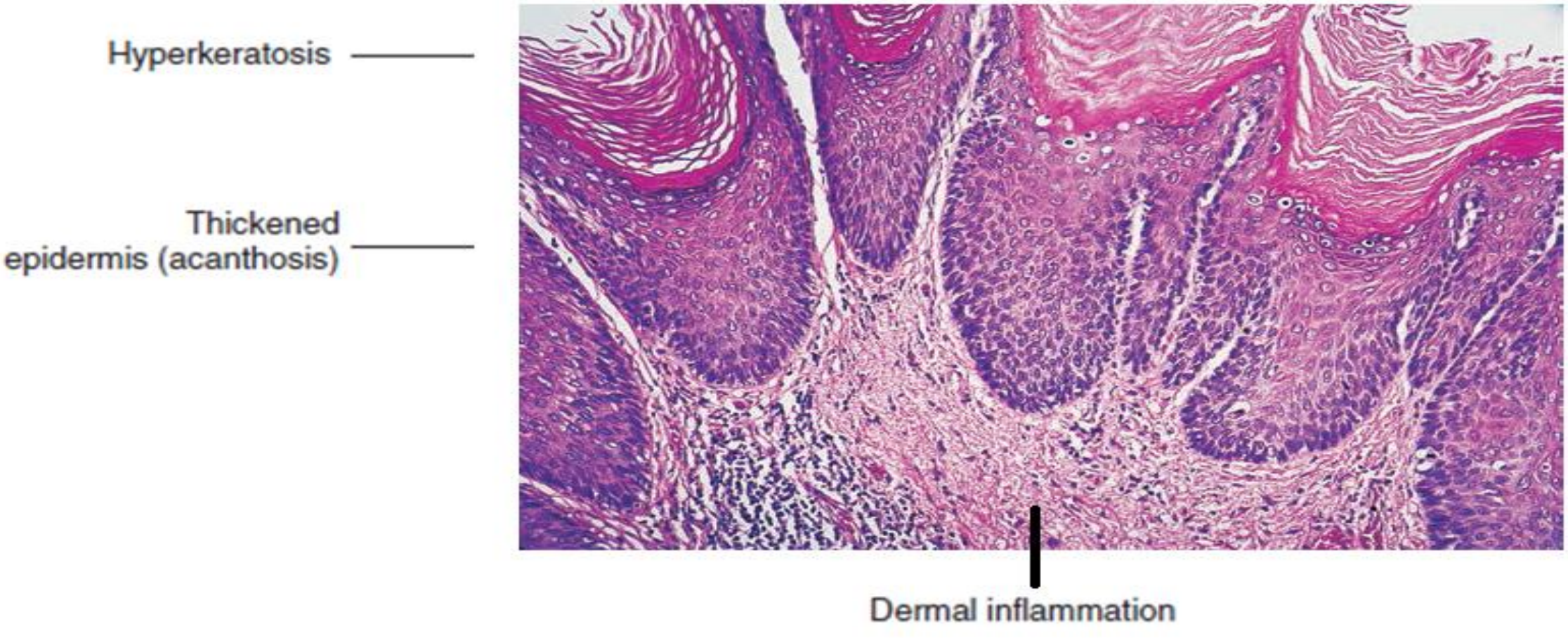


Female Genital system

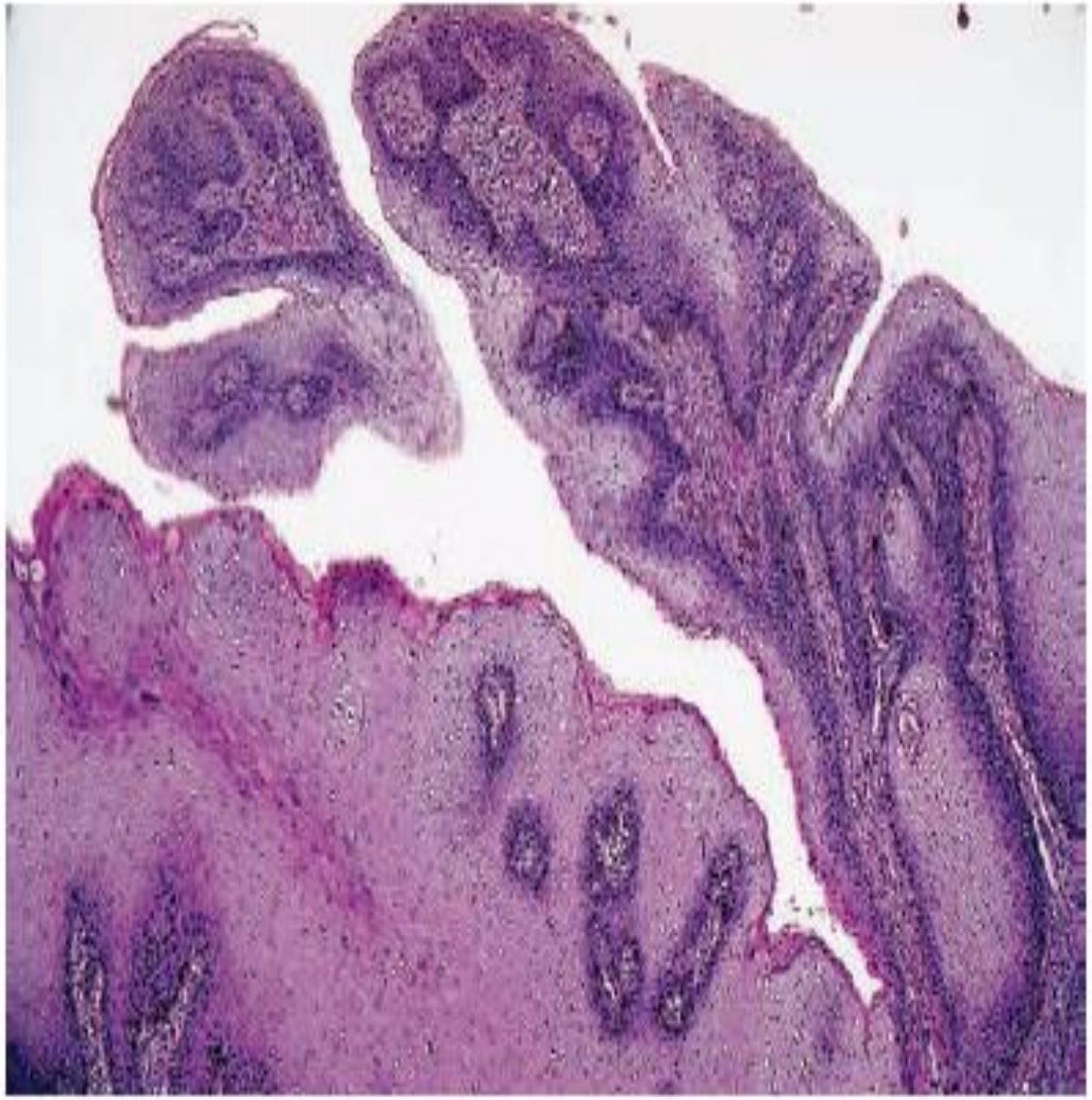
Lichen sclerosus is characterized by thinning of the epidermis, disappearance of rete pegs, hydropic degeneration of the basal cells, dermal fibrosis, and a scant perivascular mononuclear inflammatory cell infiltrate.



- Lichen simplex chronicus is marked by epithelial thickening (particularly of the stratum granulosum) and hyperkeratosis.
- Increased mitotic activity is seen in the basal and suprabasal layers; however, there is no epithelial atypia.
- Leukocytic infiltration of the dermis is sometimes pronounced.

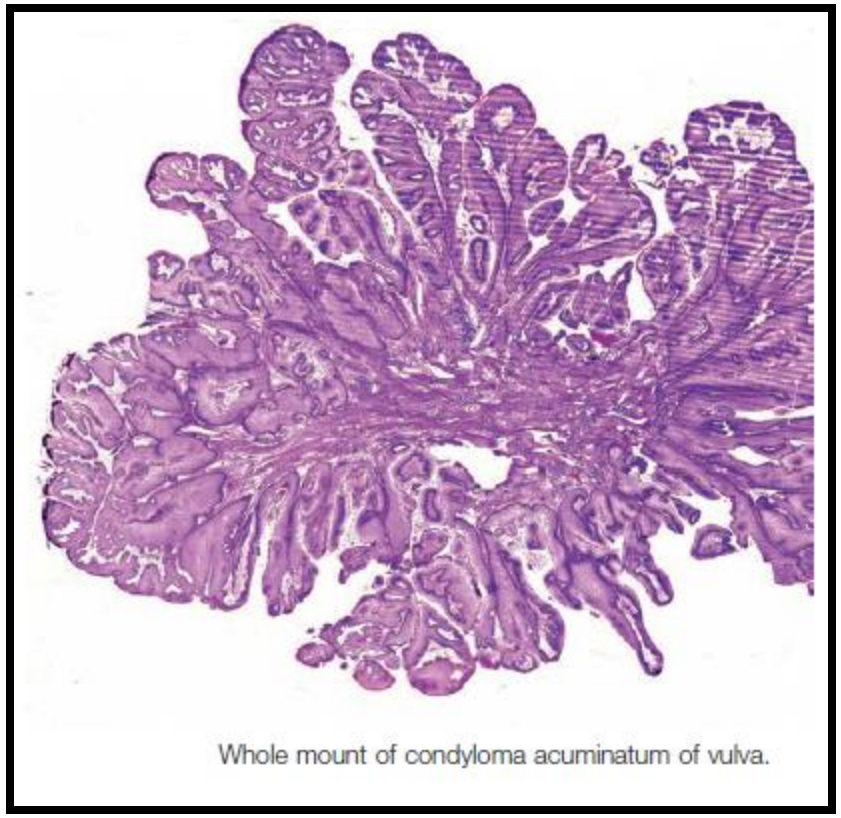


Large condyloma of vulva.

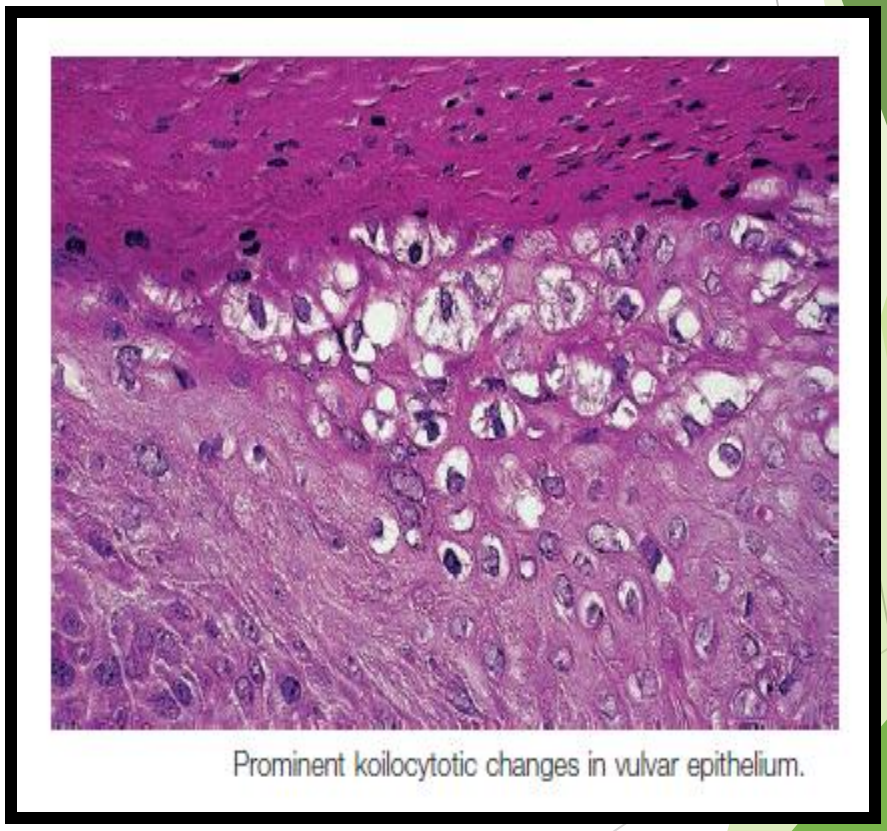


Papillomatous shape of vulvar condyloma.

On histologic examination, the characteristic cellular feature is koilocytosis, a cytopathic change characterized by perinuclear cytoplasmic vacuolization and wrinkled nuclear contours that is a hallmark of HPV.



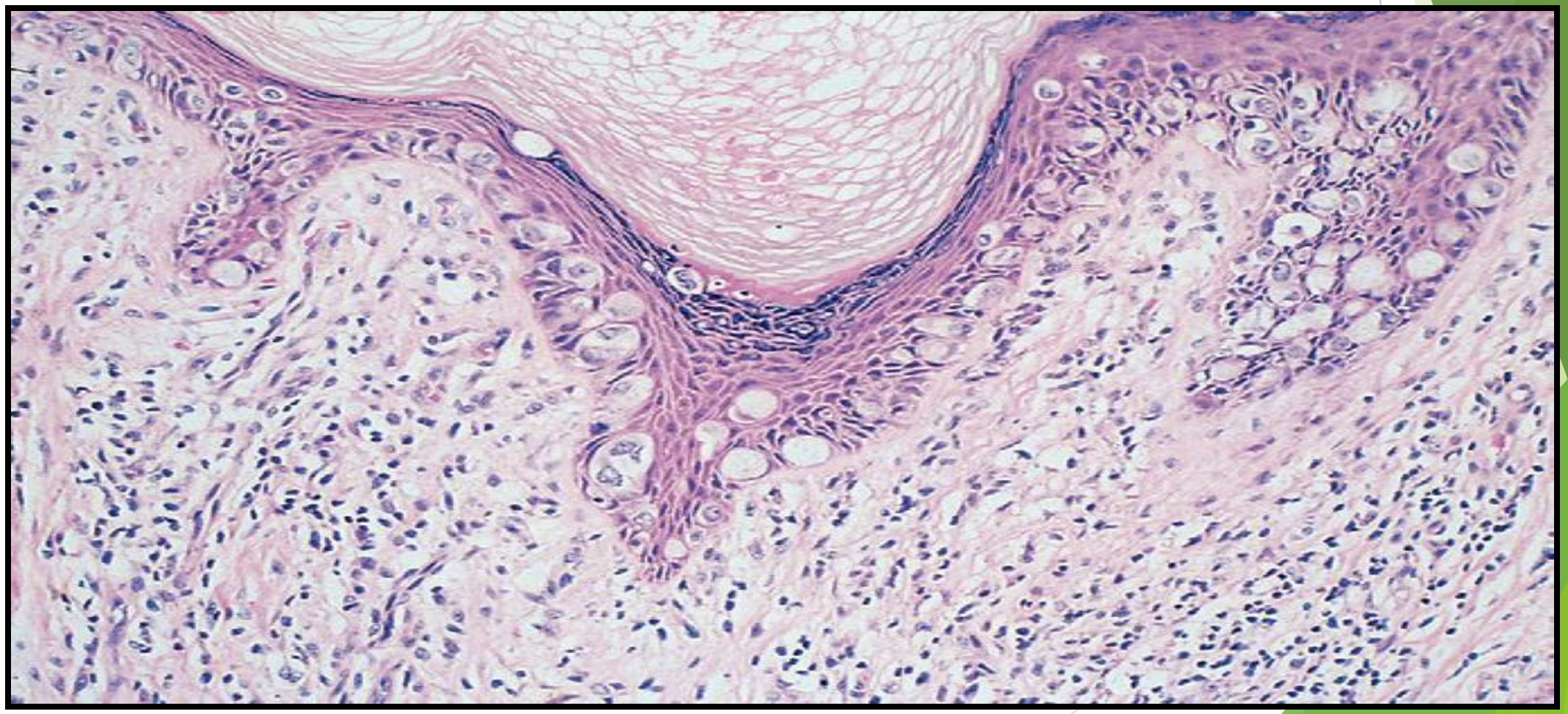
Whole mount of condyloma acuminatum of vulva.



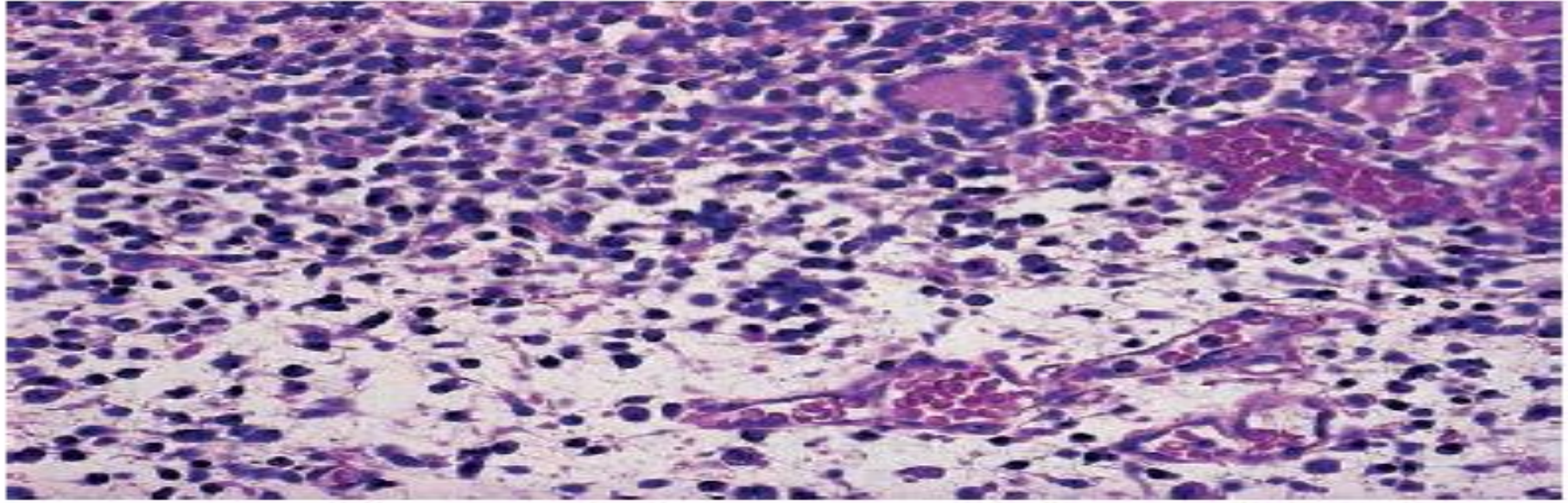
Prominent koilocytotic changes in vulvar epithelium.

On histologic examination, large epithelioid cells with abundant pale, finely granular cytoplasm and occasional cytoplasmic vacuoles infiltrate the epidermis, singly and in groups.

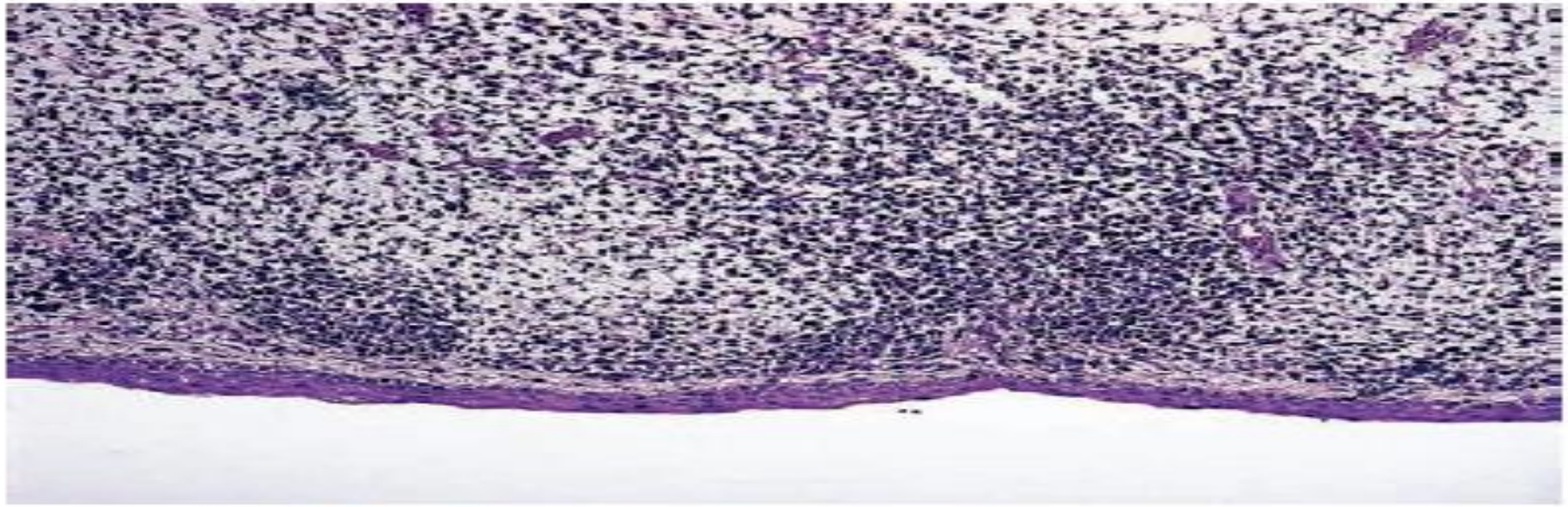
The presence of mucin, as detected by periodic acid–Schiff (PAS) staining, is useful in distinguishing Paget disease from vulvar melanoma, which lacks mucin.



The grape-like configuration of Botryoid Embryonal Rhabdomyosarcoma of Vagina. is characteristic.

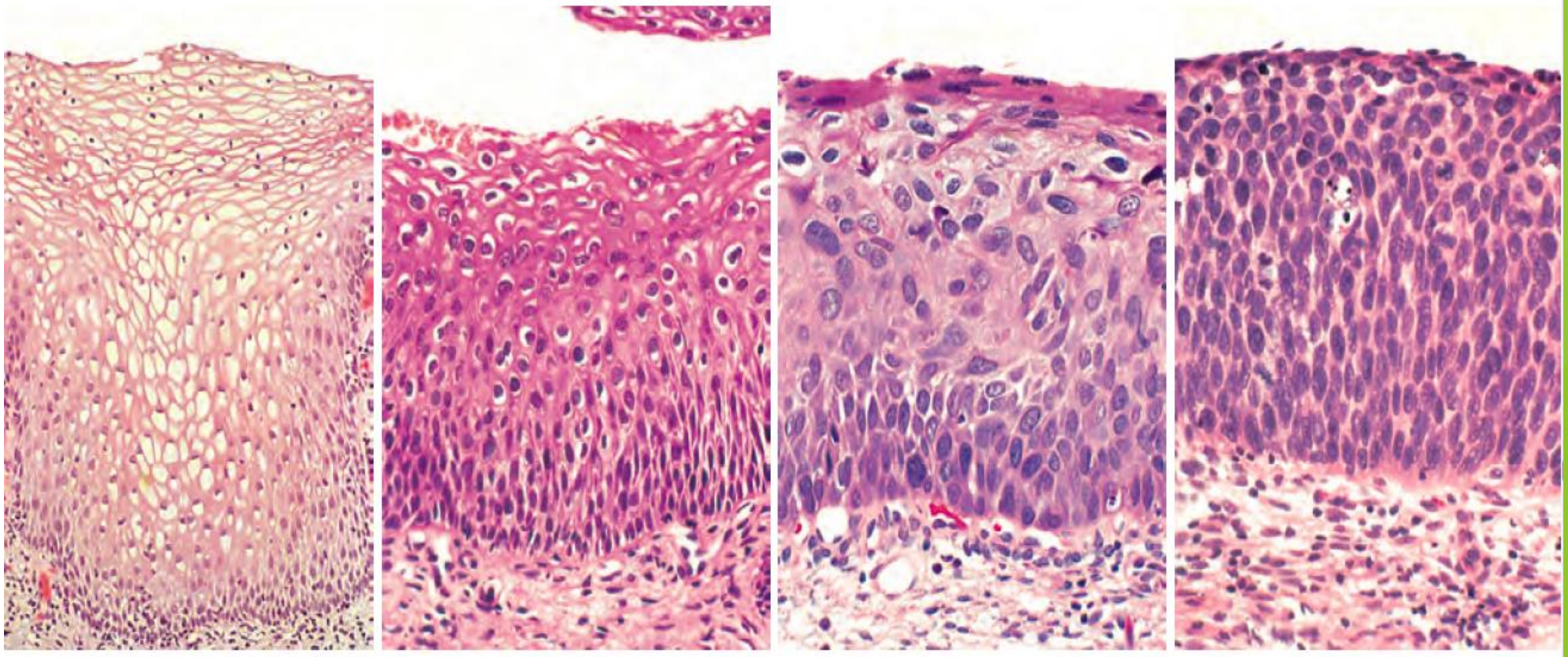


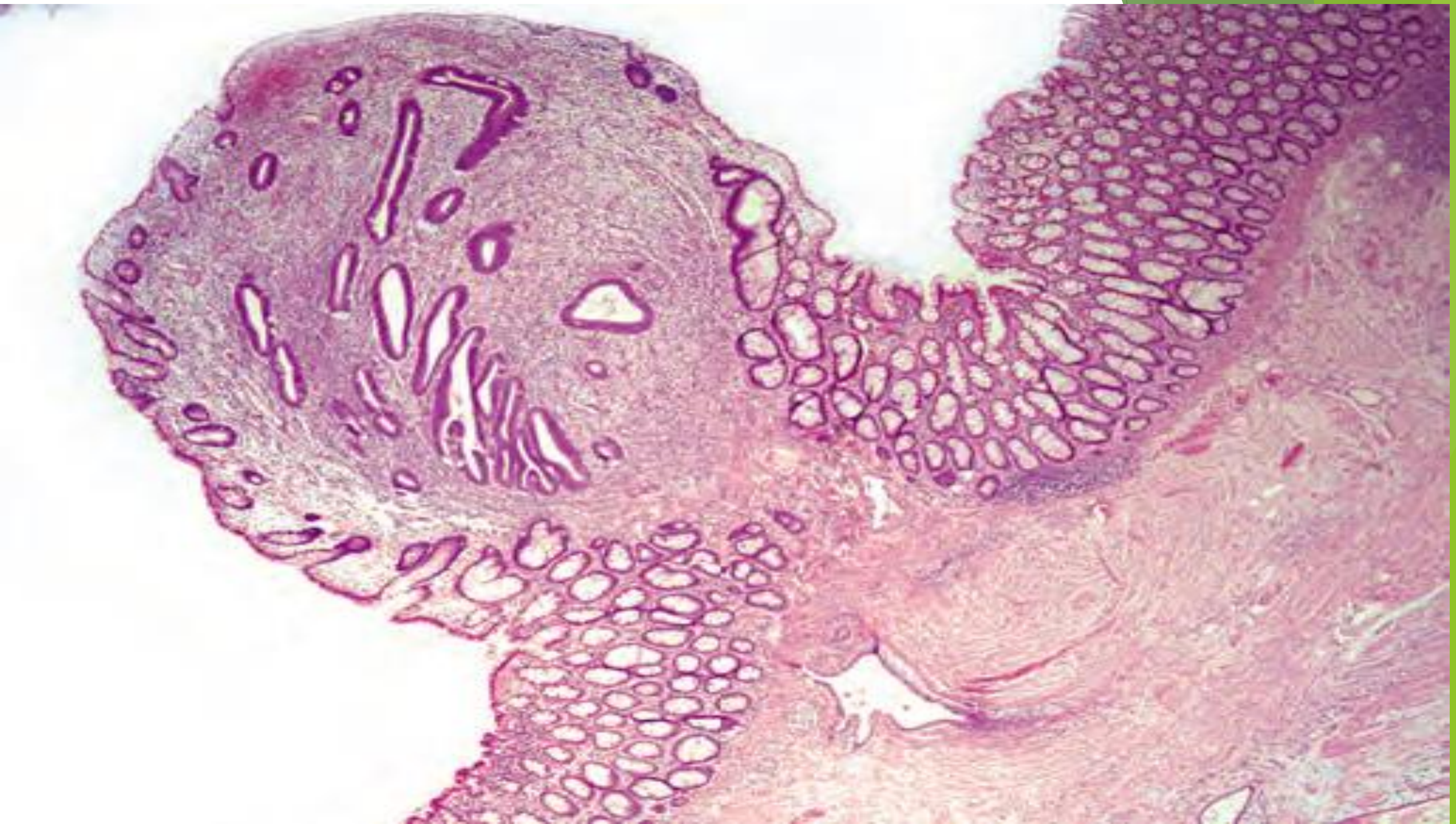
Microscopic Appearance of Embryonal Rhabdomyosarcoma. The differential diagnosis is that of small round cell tumors.



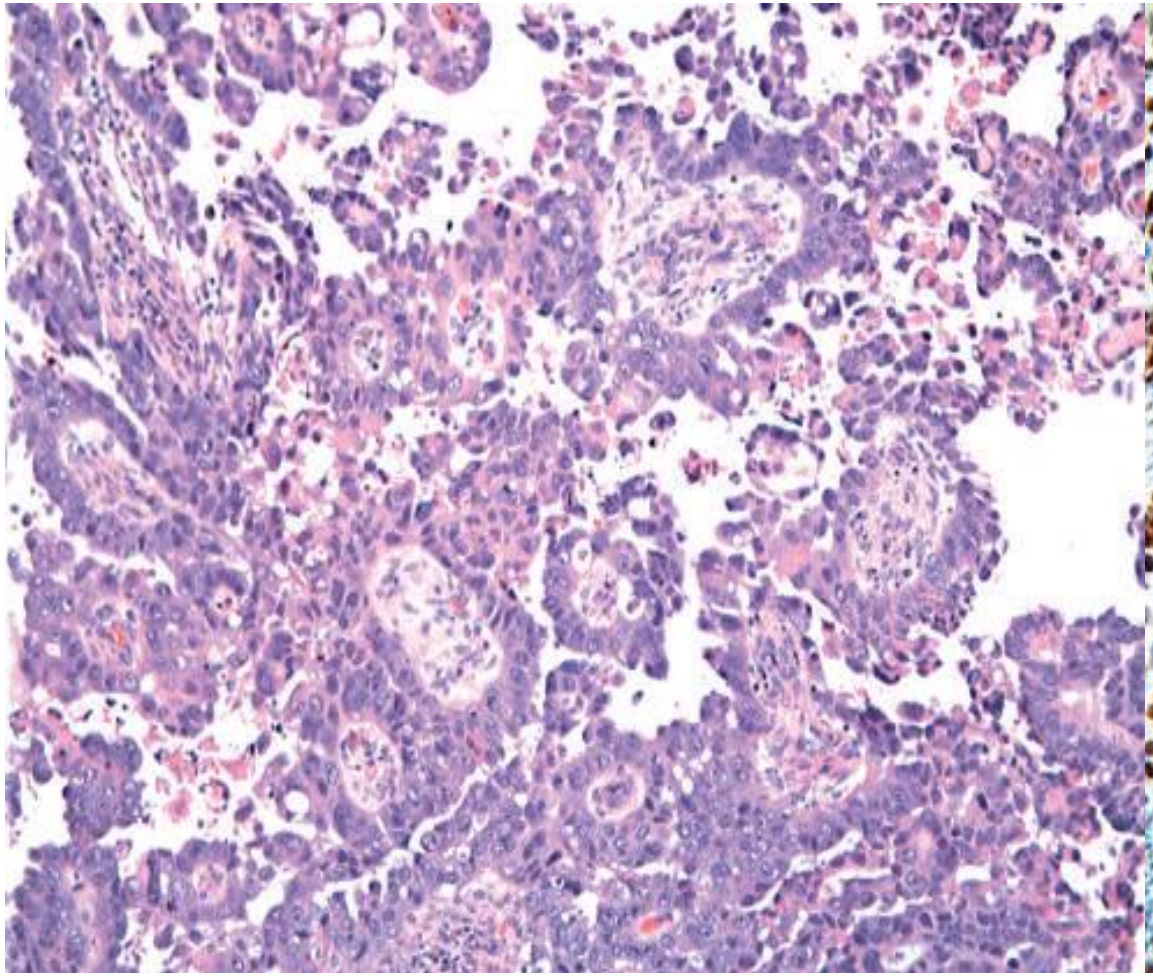
So-called cambium layer beneath non-neoplastic epithelium in embryonal rhabdomyosarcoma.

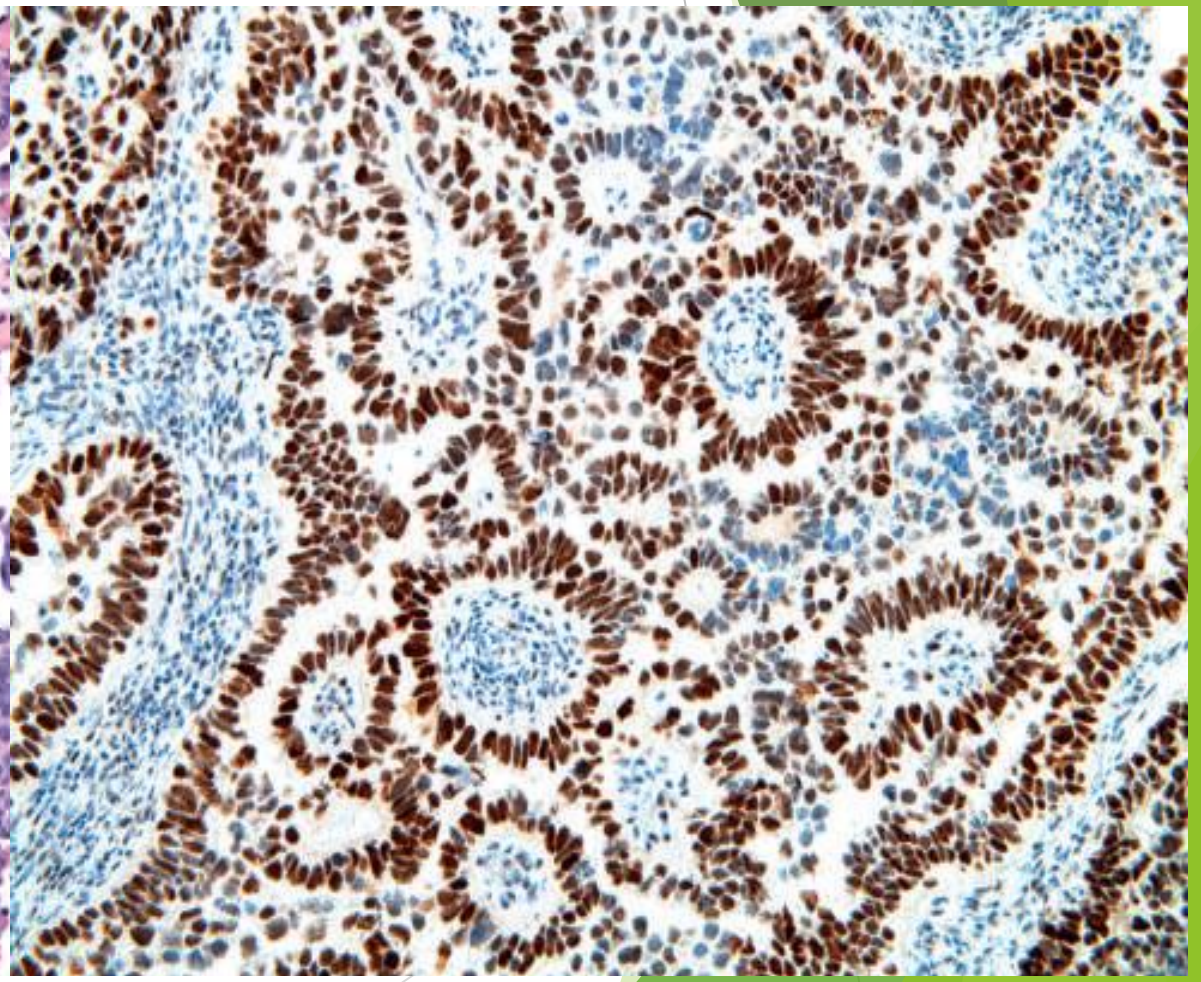
CIN → Dysplasia: nuclear enlargement, hyperchromasia (darker), coarse chromatin, & variation in nuclear size & shape





Tumors of Endometrium - Serous carcinomas





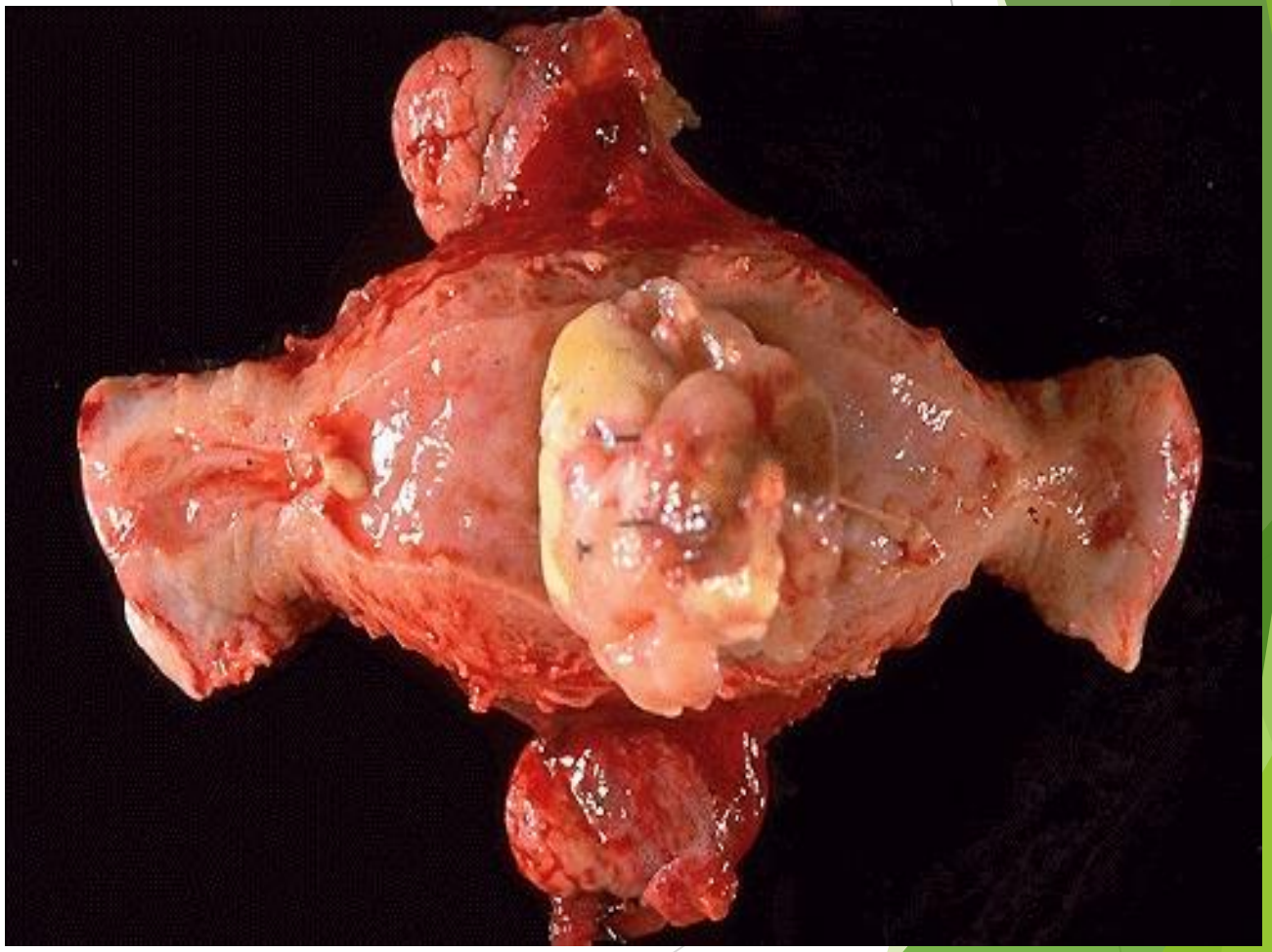
Tumors of Myomertium – Leiomyomas (fibroids)

Gross: typically **sharply circumscribed**, firm gray white masses with a characteristic **whorled cut surface**, often occur as **multiple tumors**.

Tumors of Myomertium – Leiomyosarcoma

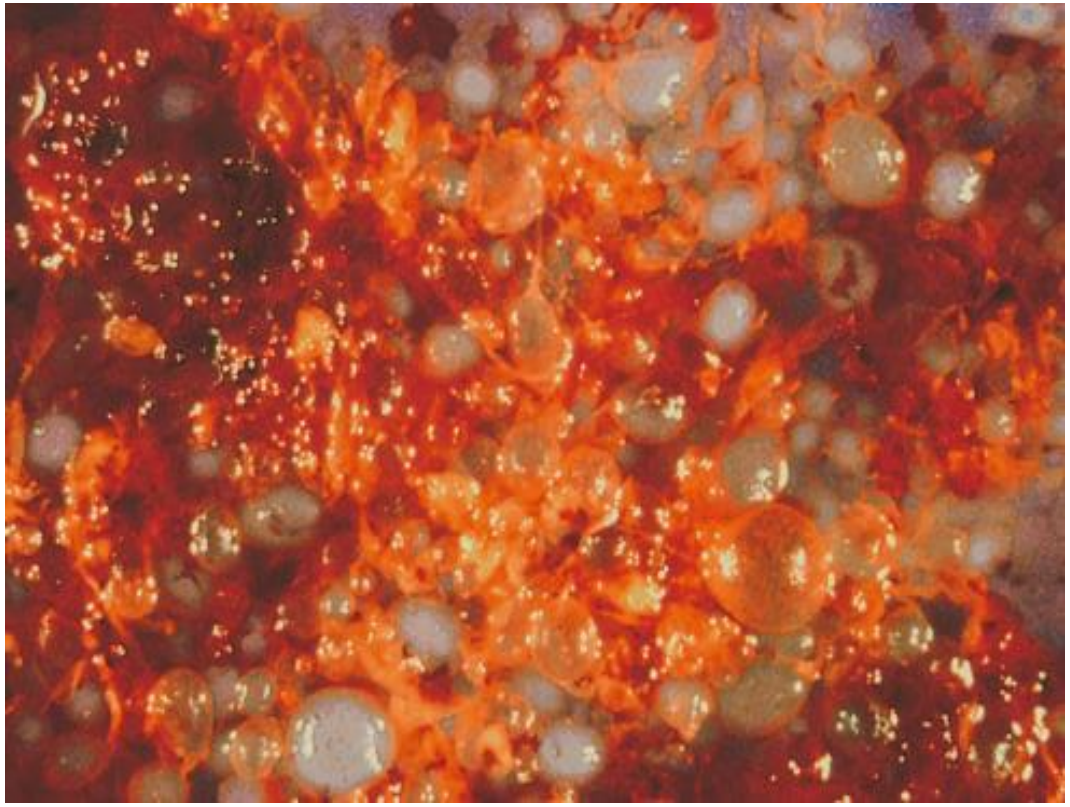
Gross: soft, hemorrhagic, necrotic masses.

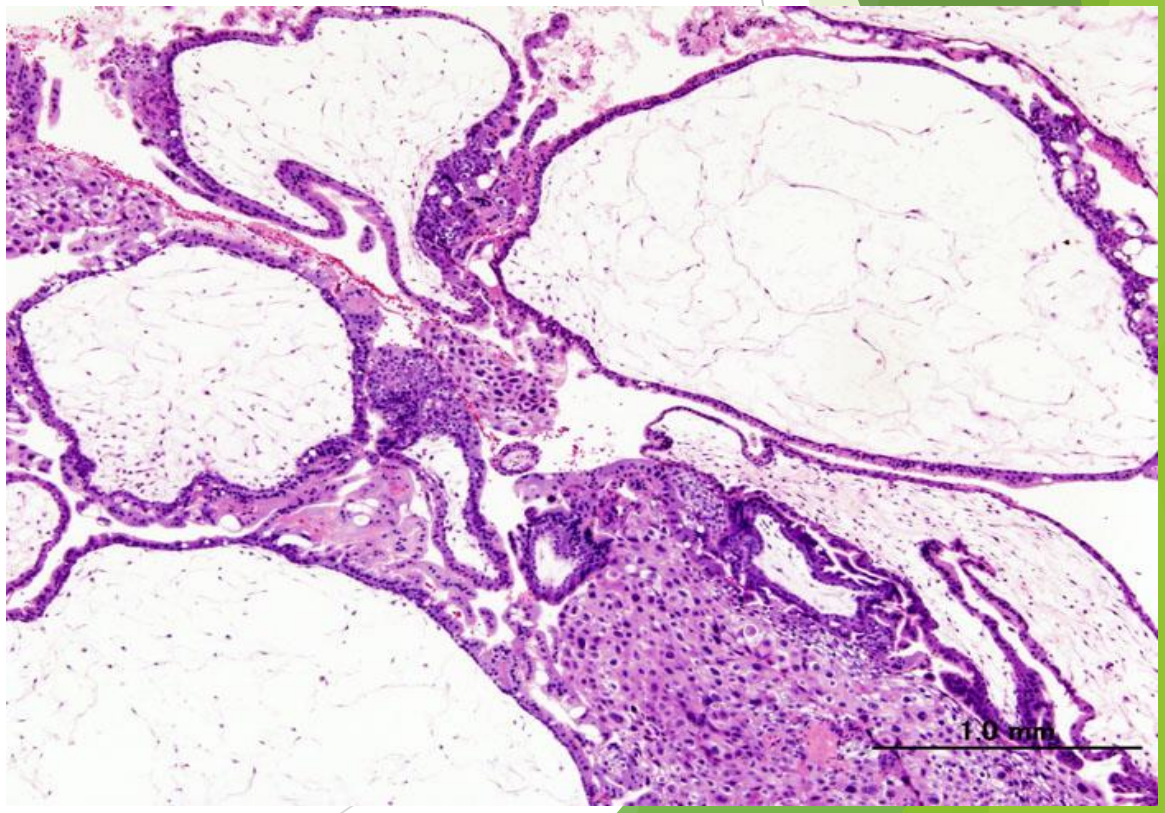
Irregular borders.



Hydatidiform Mole – Morphology

Uterine cavity is expanded by friable mass (**Grape-like villi**) composed of thin-walled, cystically dilated chorionic villli covered by varying amount of atypical chronic epithelium.





Thank you

Good luck