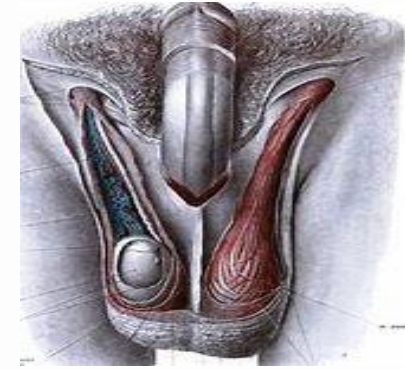
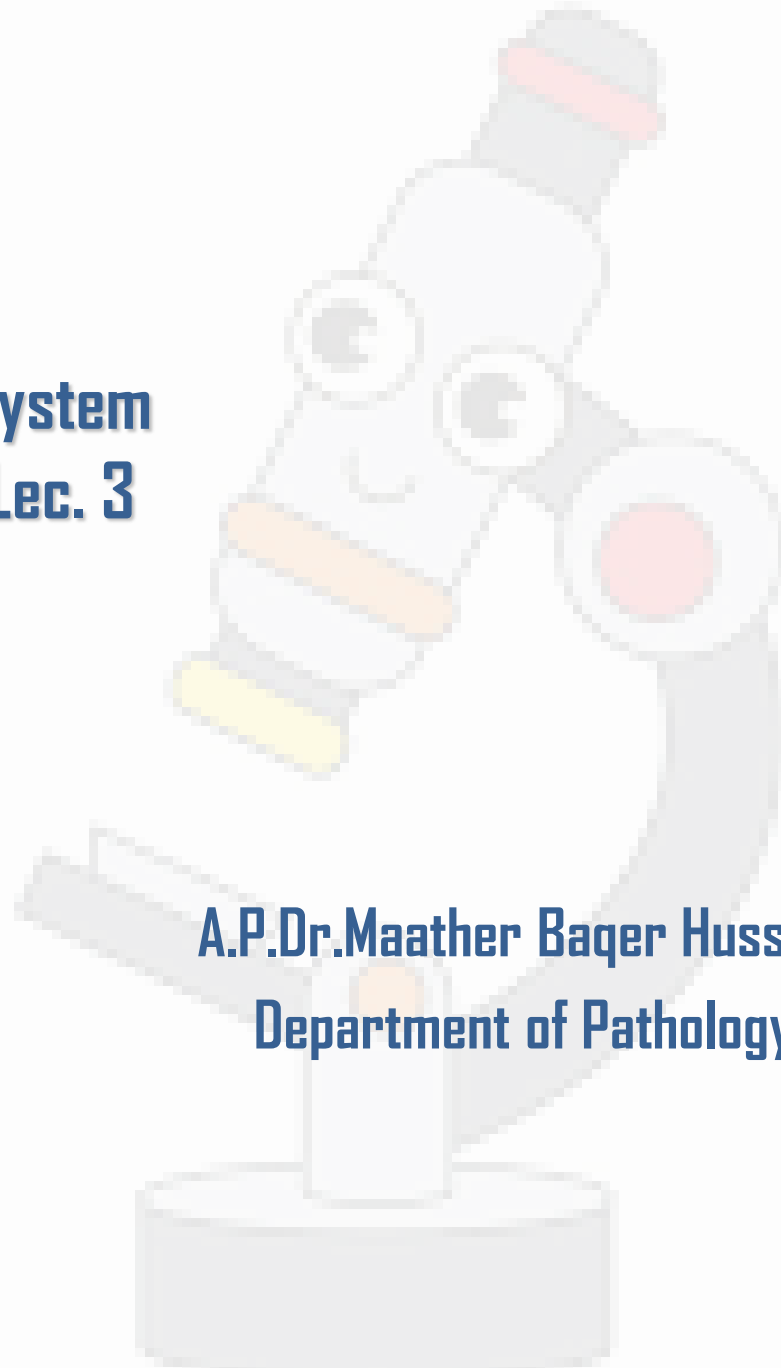


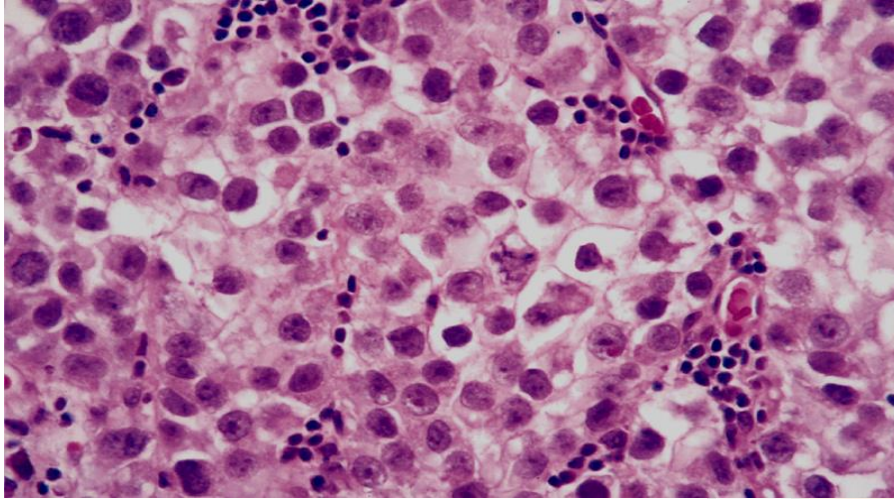
**Male Genital System
Pathology Lec. 3**



**A.P.Dr.Maather Baqer Hussein
Department of Pathology**

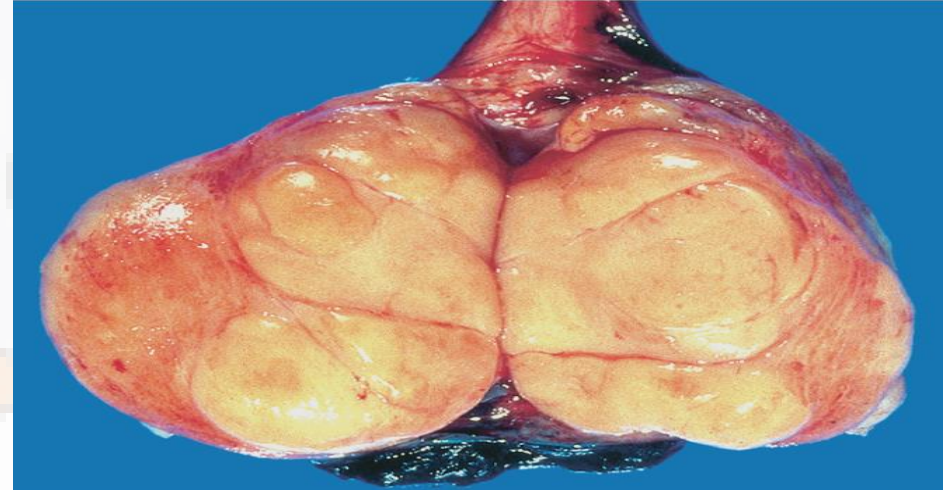


Seminoma

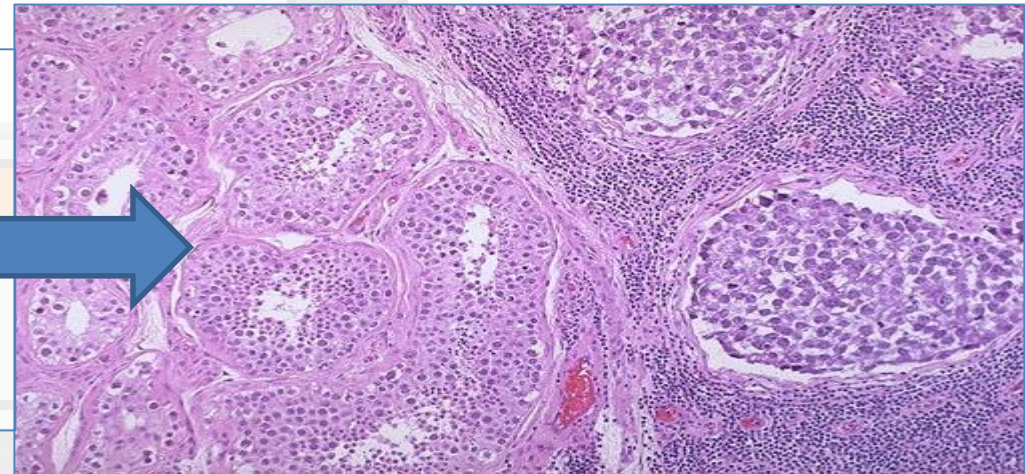


Large cells with distinct cell borders, clear cytoplasm, rounded nuclei, prominent nucleoli, and a sparse lymphocytic infiltrate.

The tumor appears as a fairly well circumscribed, pale, fleshy, homogeneous mass

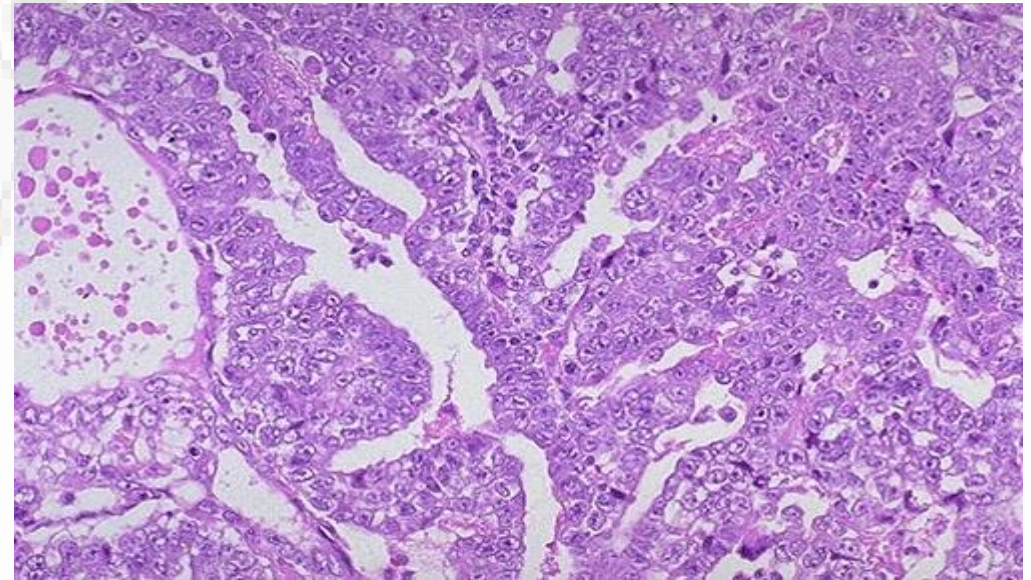
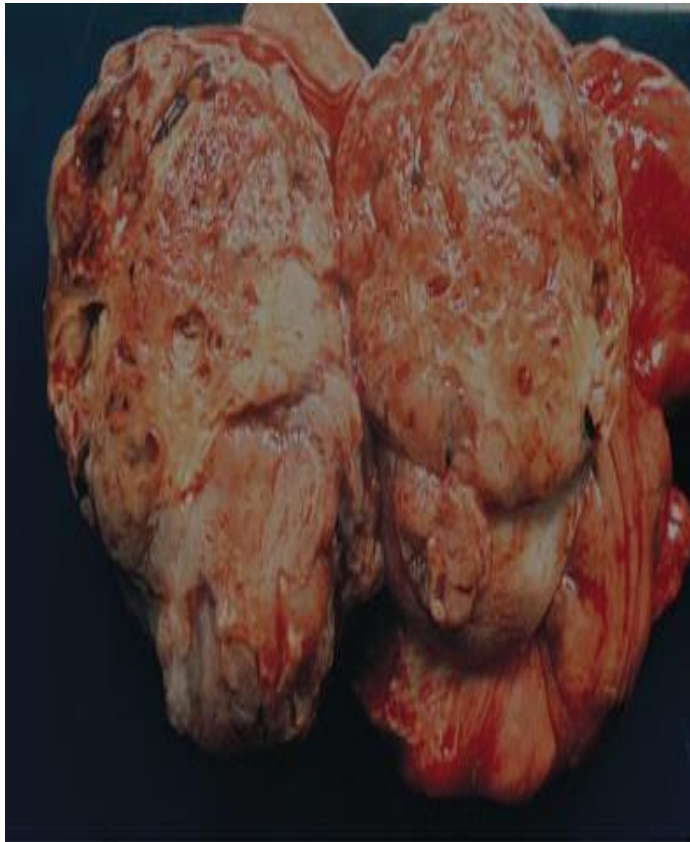


Normal testis appears at the left, and seminoma is present at the right. Note the difference in size and staining quality of the neoplastic nests of cells compared to normal germ cells. Note the lymphoid stroma between the nests of seminoma.



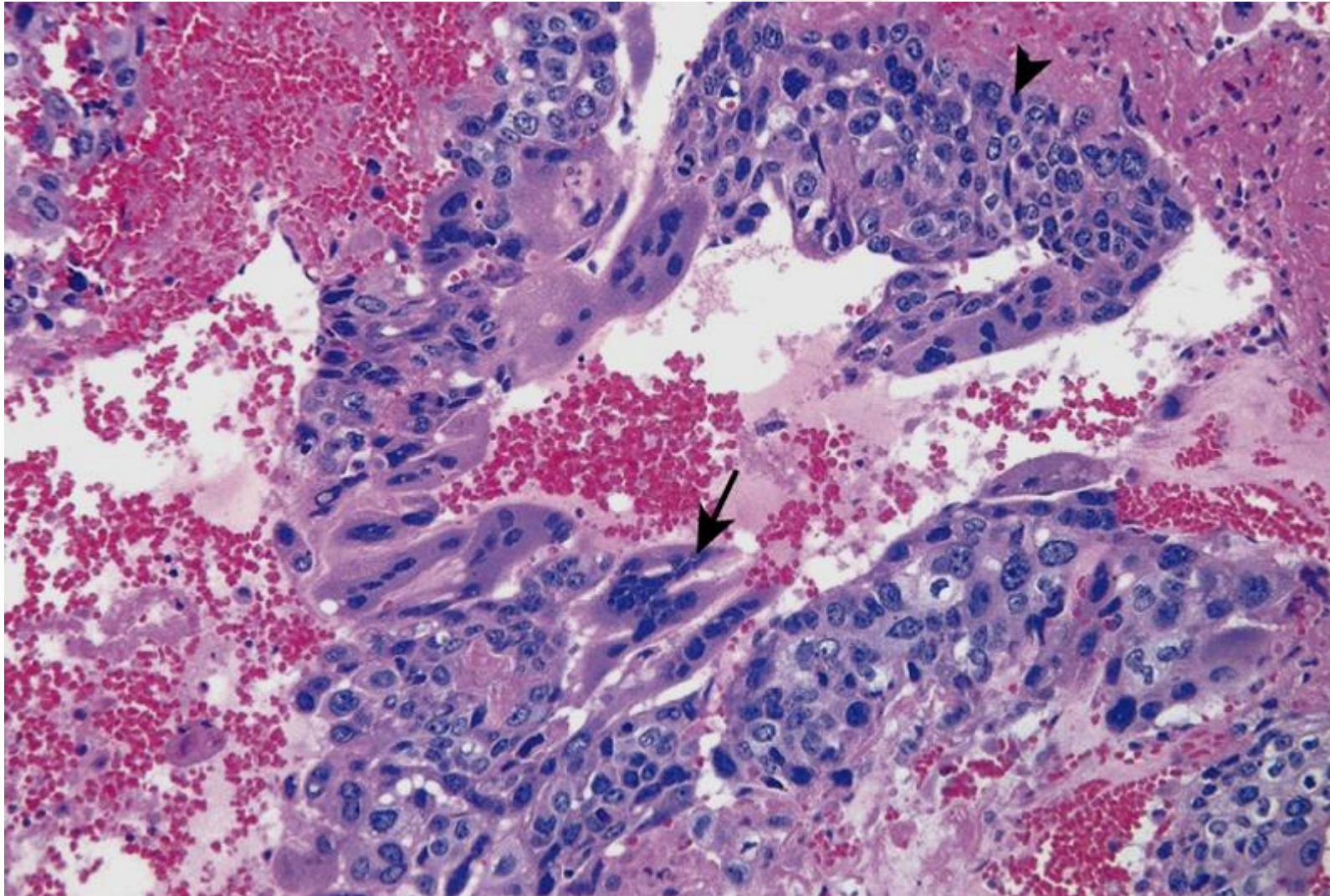
Embryonal carcinoma

Gross :- Grayish-white masses solid nodular invasive (ill-defined) cut surface with numerous areas of necrosis and hemorrhage. The primary lesions may be small, even in patients with systemic metastases. Larger lesions may invade the epididymis and spermatic cord.

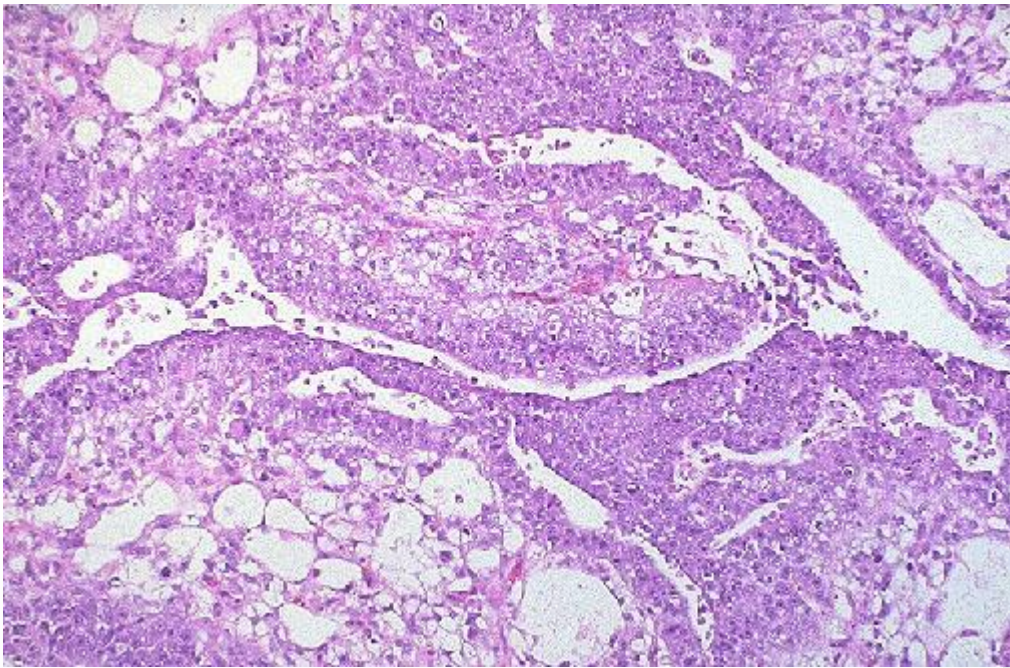


This is the histologic pattern of embryonal carcinoma. Sheets of blue cells are trying to form primitive tubules.

Choriocarcinoma

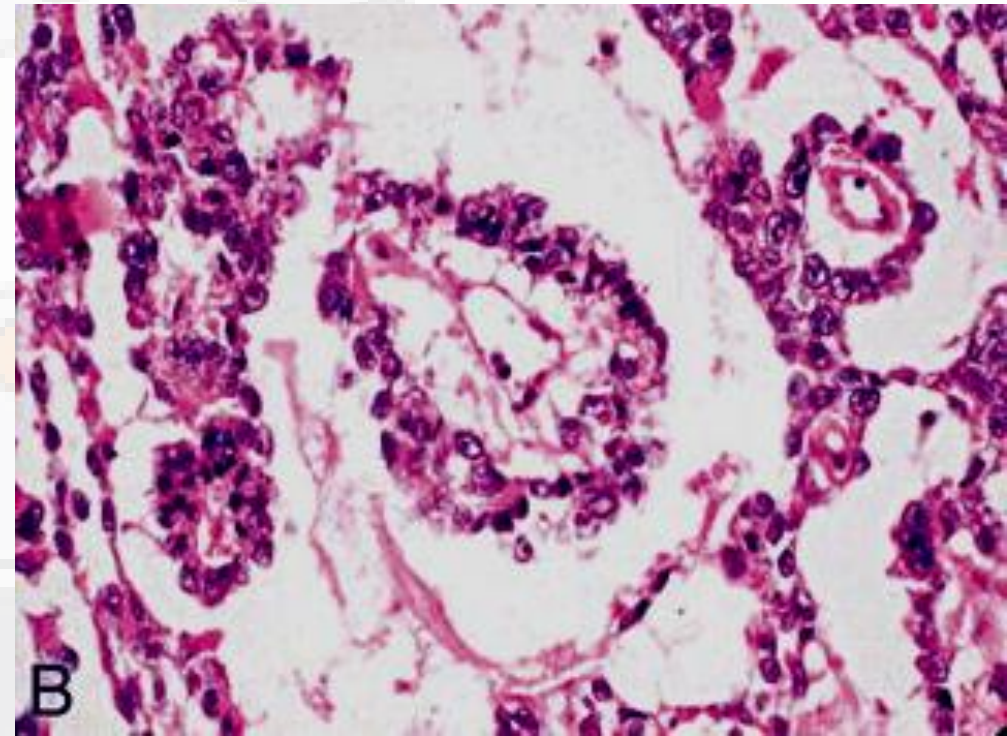


The tumour shows cytotrophoblastic cells with central nuclei (arrowhead, upper right) and syncytiotrophoblastic cells with multiple dark nuclei embedded in eosinophilic cytoplasm (arrow, middle). Hemorrhage and necrosis are prominent.

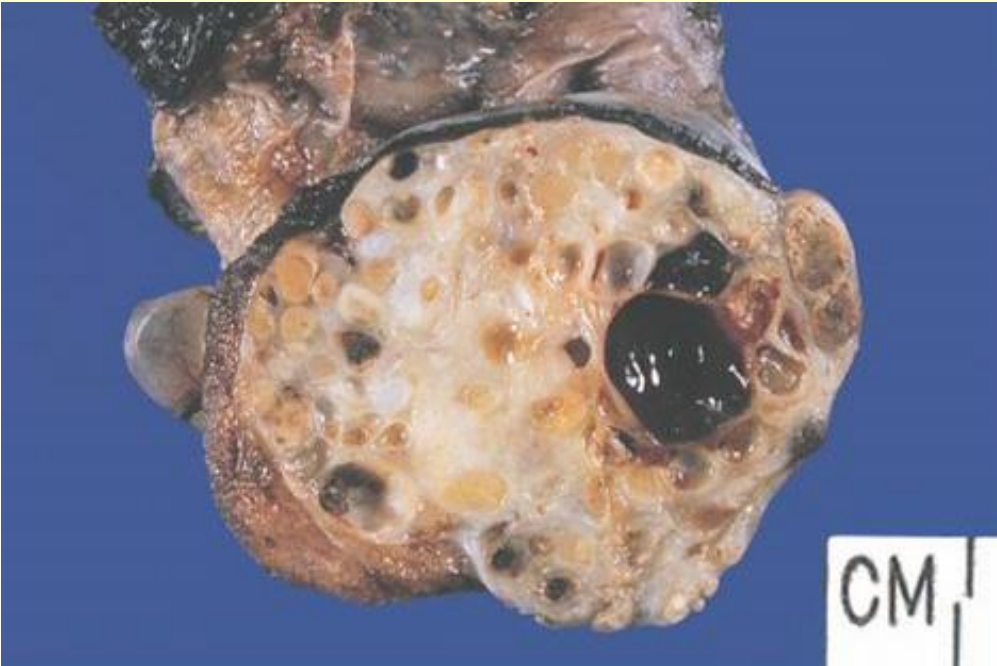


A, An endodermal sinus tumor (yolk sac tumor) of the testis is shown composed of primitive germ cells that form glomeruloid or embryonal-like structures.

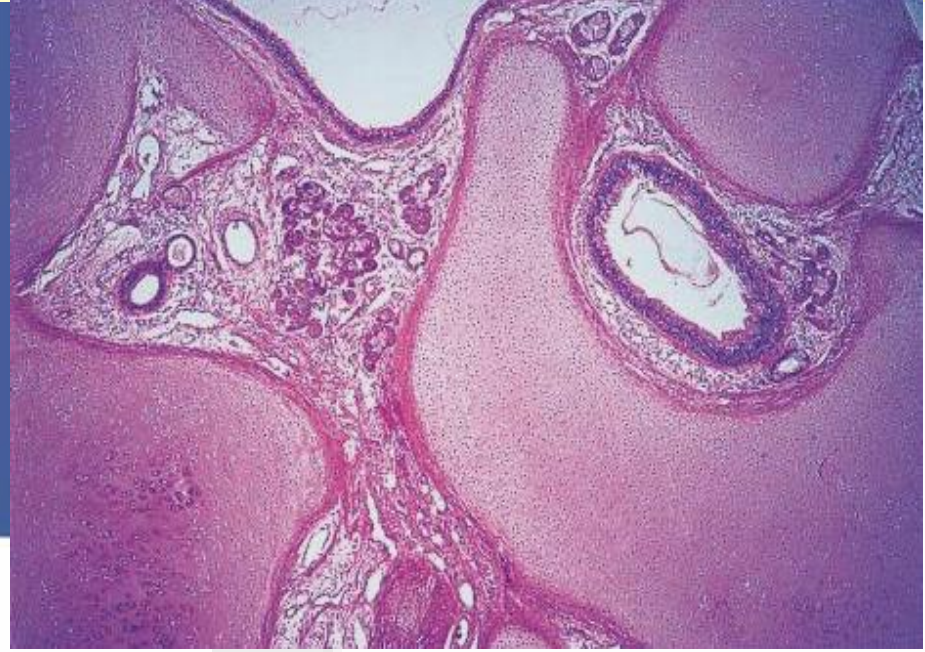
B, Yolk sac tumor showing classic Schiller-Duval bodies with a central fibrovascular core surrounded by malignant cuboidal to columnar cells (H & E ×400)



Mature teratoma testis gross

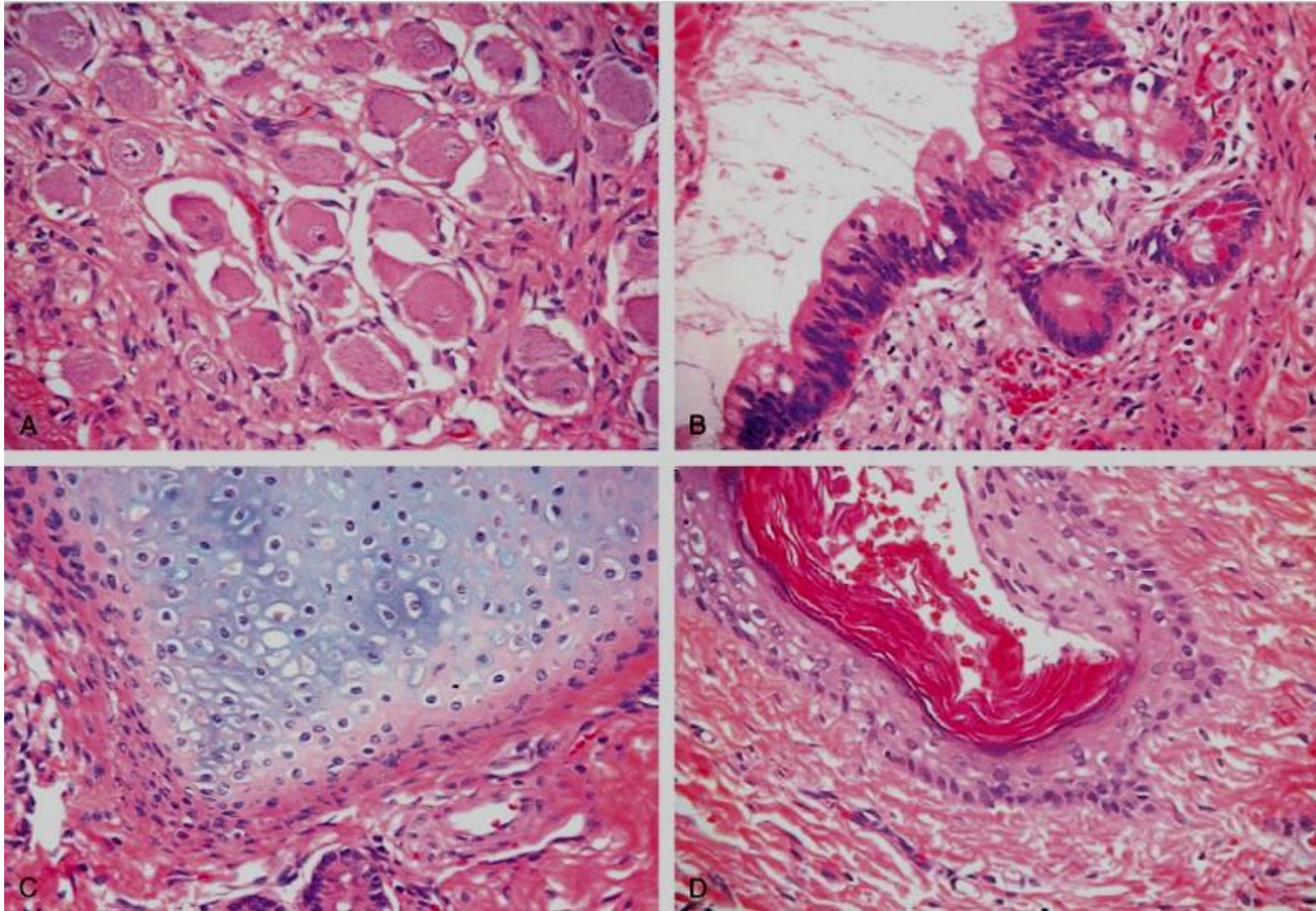


There are multiple cystic areas, lobules of mature adipose tissue, and shiny solid nodules corresponding to well-differentiated cartilage



Large islands of cartilage are seen surrounding well-differentiated glandular structures.

Testicular teratomas



These tumors contain mature cells from endodermal, mesodermal, and ectodermal lines. Pictured here are four different fields from the same tumor containing (A) neural (ectodermal), (B) glandular (endodermal), (C) cartilaginous (mesodermal), and (D) squamous epithelial elements.

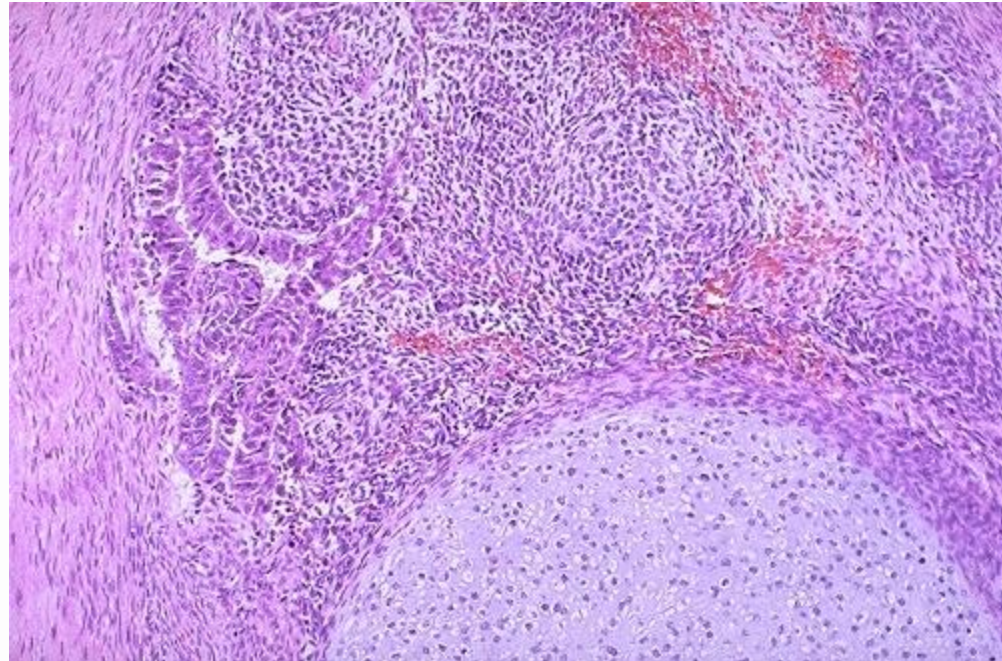


Larger testicular neoplasm composed mostly of embryonal carcinoma, but there are scattered firmer white areas that histologically are teratoma. (mixed embryonal carcinoma plus teratoma sometimes called teratocarcinoma).

The alpha-fetoprotein is often elevated.



Here is an embryonal carcinoma mixed with teratoma in which islands of bluish white cartilage from the teratoma component are prominent. A rim of normal brown testis appears at the left.



At the bottom is a focus of cartilage. Above this is a primitive mesenchymal stroma and to the left a focus of primitive cells most characteristic for embryonal carcinoma. This is embryonal carcinoma mixed with teratoma.

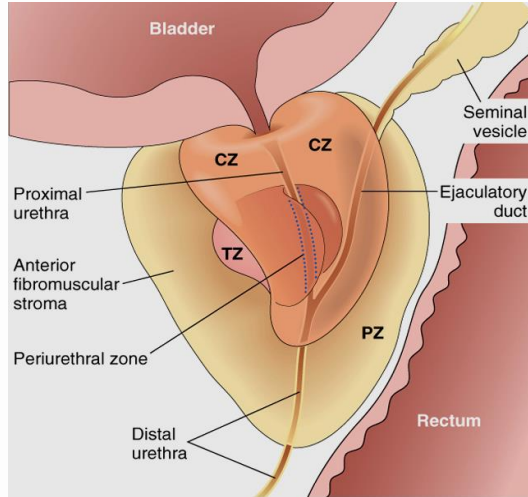
Stromal tumors (sex-cord tumors)

- Leydig cell tumor
- Sertoli cell tumor (androblastoma).
 - Leydig cell tumors > Sertoli cell tumors
 - Less than 5% of all testicular tumors
 - Benign (90%), malignant (10%)
 - **The gross and microscopic appearances are typical for endocrine tumors.**
 - **Criteria for malignancy are necrosis, mitotic figures, local invasion, and nuclear pleomorphism.**
 - May elaborate androgens/androgens & estrogens
 - Hormonally active (50%) **Macrogenitosomia, Precocious puberty, Gynecomastia**

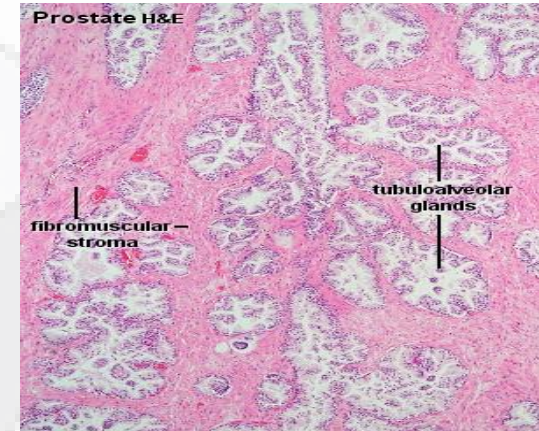
SUMMARY OF TESTICULAR GERM CELL TUMORS

| Tumor | Peak Age (yr) | Morphology | Tumor Markers |
|-------------------------|---------------|---|--------------------------------------|
| Seminoma | 40-50 | Sheets of uniform polygonal cells with cleared cytoplasm; lymphocytes in the stroma | 10% have elevated hCG |
| Embryonal carcinoma | 20-30 | Poorly differentiated, pleomorphic cells in cords, sheets, or papillary formation; most contain some yolk sac and choriocarcinoma cells | 90% have elevated hCG or AFP or both |
| Yolk sac tumor | 3 | Poorly differentiated endothelium-like, cuboidal, or columnar cells | 90% have elevated AFP |
| Chorio carcinoma (pure) | 20-30 | Cytotrophoblast and syncytiotrophoblast without villus formation | 100% have elevated hCG |
| Teratoma | All ages | Tissues from all three germ-cell layers with varying degrees of differentiation | 50% have elevated hCG or AFP or both |
| Mixed tumor | 15-30 | Variable, depending on mixture; commonly teratoma and embryonal carcinoma | 90% have elevated hCG and AFP |

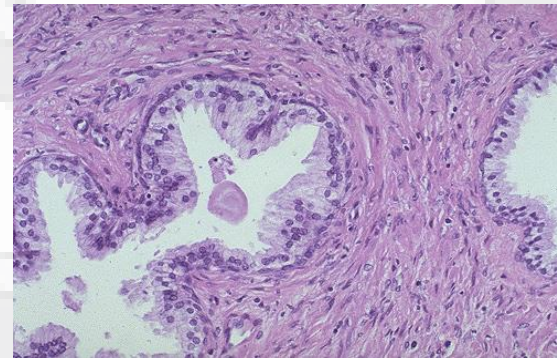
Prostate gland



A normal prostate gland is about 3 to 4 cm in diameter.



The normal histologic appearance of prostate glands and surrounding fibromuscular stroma is shown here at high magnification. A small pink concretion (typical of the corpora amyloacea seen in benign prostatic glands) appears in one gland



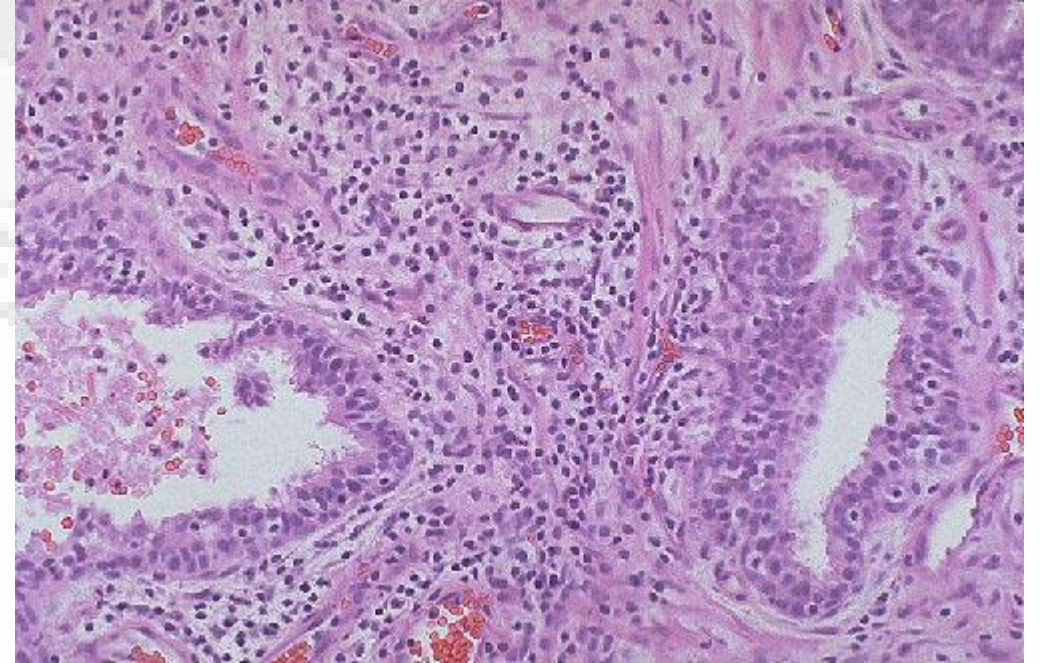
Prostatitis

Acute bacterial prostatitis :- This is typically caused by organisms associated with UTI (e.g., E. coli, other Gram-negative rods, enterococci, and staphylococci).

- Occurs through urinary reflux or lympho-hematogenous seeding from more distant sites; or catheterization or surgical manipulation.
- Patients present with fever, chills, dysuria, and a boggy, markedly tender prostate
- Diagnosis is based on clinical features and urine culture.

Chronic bacterial prostatitis : This is an insidious disorder that can be asymptomatic or associated with low back pain, suprapubic and perineal discomfort, and dysuria.

It is frequently associated with a history of recurrent UTI, but without previous



This is the microscopic appearance of chronic prostatitis. Numerous small dark blue lymphocytes are seen in the stroma between the glands.



**THANK YOU
FOR YOUR
ATTENTION**