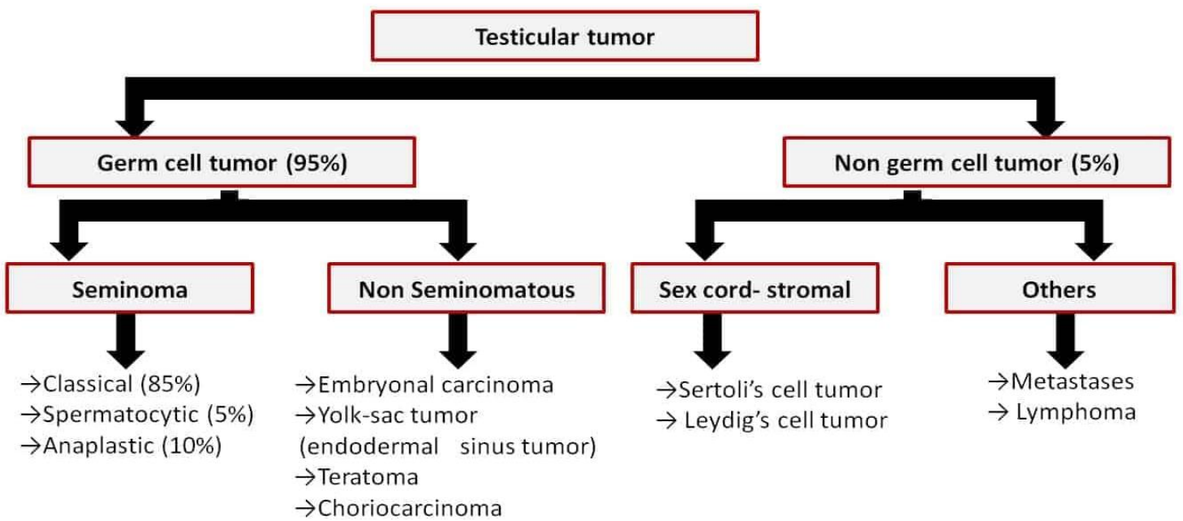
Male genital tract

Congenital diseases of the testis

Cryptorchidism

- is a **complete** or **partial failure** of the **intra-abdominal testes** to descend into **the scrotal sac** and is associated with **testicular dysfunction** and an **increased risk of testicular cancer.**
- It is found in approximately 1% of 1-year-old boys. It usually occurs as an isolated anomaly but may be accompanied by other malformations of the genitourinary tract,.
- The **most common** site of the undescended testis is in the **inguinal canal.**
- **C/P :** **Asymptomatic**, and comes to attention when the scrotal sac is **discovered to be empty** by the patient or an examining physician.
- **Complications**: **sterility** and **cancer**.
- During **the first year of life** the majority of inguinal cryptorchid testes **descend spontaneously** into the scrotum. Those that remain undescended require surgical correction, preferably **before** histologic deterioration sets in at **around 2 years of age.**

Testicular tumors



- Testicular neoplasms are divided into two major categories: **germ cell tumors** (95%) and **sex cord-stromal tumors.**
- Germ cell tumors are subdivided into **seminomas** and **nonseminomas.**

Germ cell tumors

- In the 15- to 34-year age group, testicular germ cell tumors constitute the **most common tumor of men** and cause approximately **10% of all cancer deaths**.
- **Seminomas are** the **most common** type of germ cell tumor, making up about 50% of these tumors.
- The peak incidence is the **third decade** and they almost **never** occur in infants.

A- Embryonal Carcinoma

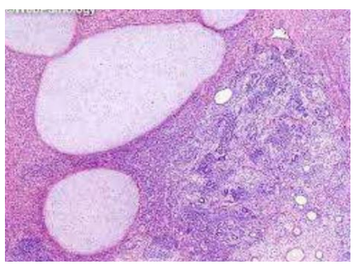
- Embryonal carcinomas occur mostly in the 20- to 30-year age group. These tumors are **more aggressive** than seminomas.

B- Choriocarcinoma

- Choriocarcinoma is a **highly malignant** form of testicular tumor. In its "**pure**" form, choriocarcinoma is rare, constituting less **than 1%** of all germ cell tumors.

C- Teratoma

- Teratomas are testicular tumors having various **cellular or organoid** components reminiscent of the normal derivatives of **more than one germ layer**.
- They may **occur at any age** from infancy to adult life.

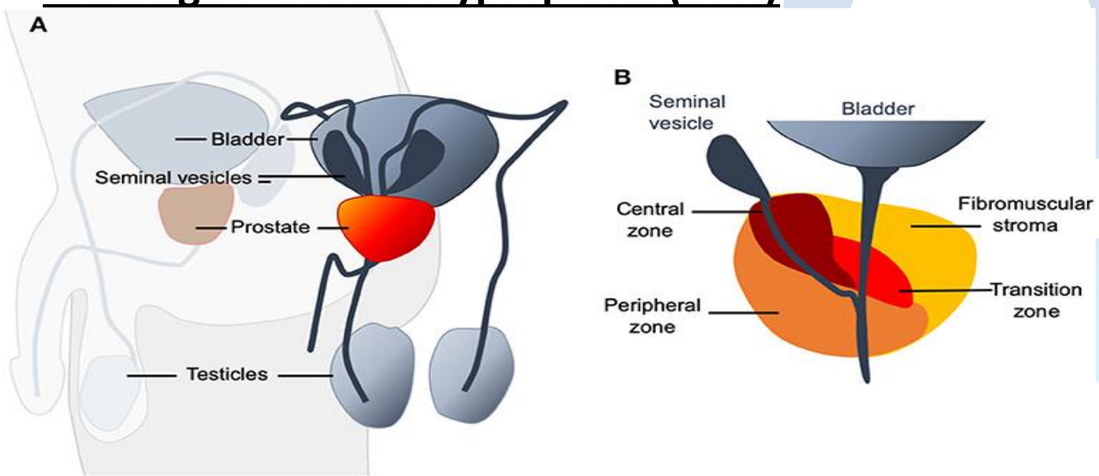


Diseases of the Prostate

1. Prostatitis

- **Bacterial prostatitis** may be **acute or chronic**; the responsible organism usually is **E. coli or another gram-negative rod.**
- **Chronic abacterial prostatitis,** despite sharing symptoatology with chronic bacterial prostatitis, is of **unknown etiology** and **does not respond** to antibiotics.
- **Granulomatous prostatitis** has a multifactorial etiology, including **infectious** and **noninfectious** causes.

2. Benign Prostatic Hyperplasia (BPH)



- Proliferation of **benign stromal** and **glandular** elements.
- **DHT**, an androgen derived from testosterone, **is the major hormonal stimulus for proliferation.**
- Most commonly affects the **INNER PERIURETHRAL ZONE** of the prostate, producing nodules that compress the **prostatic urethra.**
- **Histologically :** the nodules exhibit variable proportions of stroma and glands. **Hyperplastic glands** are lined by **two cell layers** : an **inner columnar layer** and an **outer layer composed of flattened basal cells**.
- **C/P:** are reported by 10% of affected patients and include **hesitancy**, **urgency**, **nocturia**, and **poor urinary stream**.
- **Comp. :** Chronic obstruction →recurrent UTI.

3.Carcinoma of the prostate :

- is a common cancer of older men between **65 and 75 years** of age.
- range from **indolent lesions** that will never cause harm to **aggressive fatal tumors.**
- Carcinomas of the prostate arise **most commonly in the outer, peripheral gland.**
- **Histologically :** adenocarcinomas with variable differentiation. Neoplastic glands are **lined by a single layer of cells.**
- **Bone metastases** typify advanced prostate cancer.
- Most localized cancers are clinically silent and are detected by routine monitoring of **PSA (prostate specific antigen)** concentrations in older men.
- Serum PSA measurement is a **useful but imperfect cancer-screening test**, with significant rates of **false-negative** and **false-positive** results.
- Evaluation of PSA concentrations **after treatment** has great value in monitoring **progressive** or **recurrent disease.**

Done by : Dr.Abdullah Alwikhyan