

Cryptorchidism (Pathology)

Ms.Divya K M
Associate Professor

- ▶ **Cryptorchidism or undescended testis** is a condition in which the testicle is arrested at some point in its descent.

Etiology

- ▶ **Mechanical factors**

eg. Short spermatic cord, narrow inguinal canal, adhesions in the peritoneum

- ▶ **Genetic factors** eg, trisomy 13, maldevelopment of scrotum

- ▶ **Hormonal factors** eg. deficient androgenic secretions

Clinical features

- ▶ Completely asymptomatic and discovered only on physical examination

Adverse clinical outcome

1. Sterility–infertility
 2. Inguinal hernia
 3. malignancy
- 

Morphological features

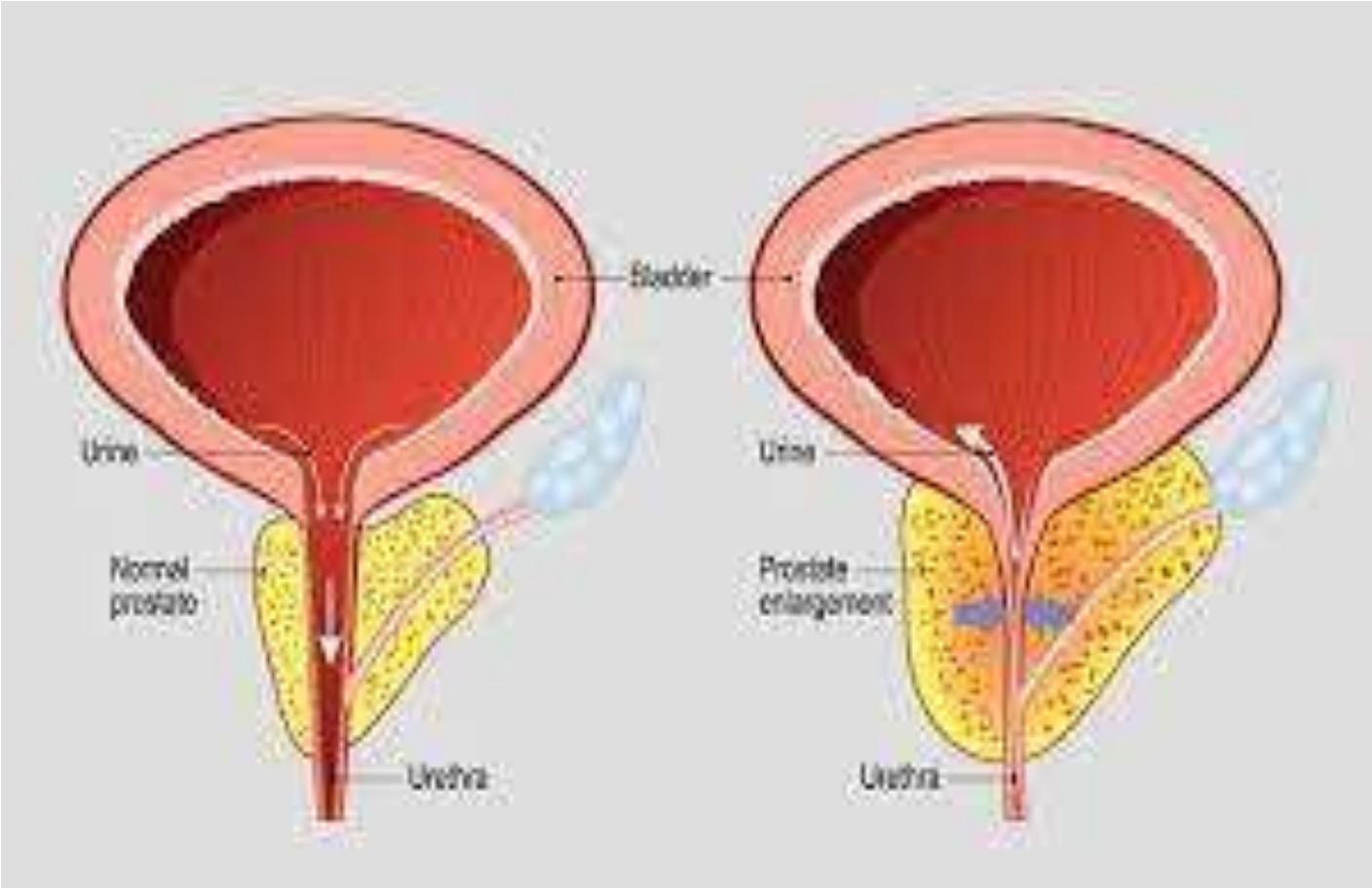
- ▶ Grossly criptochid testis **small in size, firm**
- ▶ **Histologically**
 - Semniferous tubules, basement membrane is thickened
 - Interstitial stroma – there is usually increase in interstitial fibrovascular stroma

Benign Prostate hyperplasia

- ▶ Prostatic enlargement can occur as a result of BPH (benign prostate hyperplasia) or carcinoma of the prostate

Benign prostate hyperplasia

- ▶ BPH is the enlargement of the periurethral portion of the prostate. As the prostate undergoes hyperplasia it compresses upon the urethra and causes the symptoms of lower urinary tract obstruction.



Morphological features

Grossly

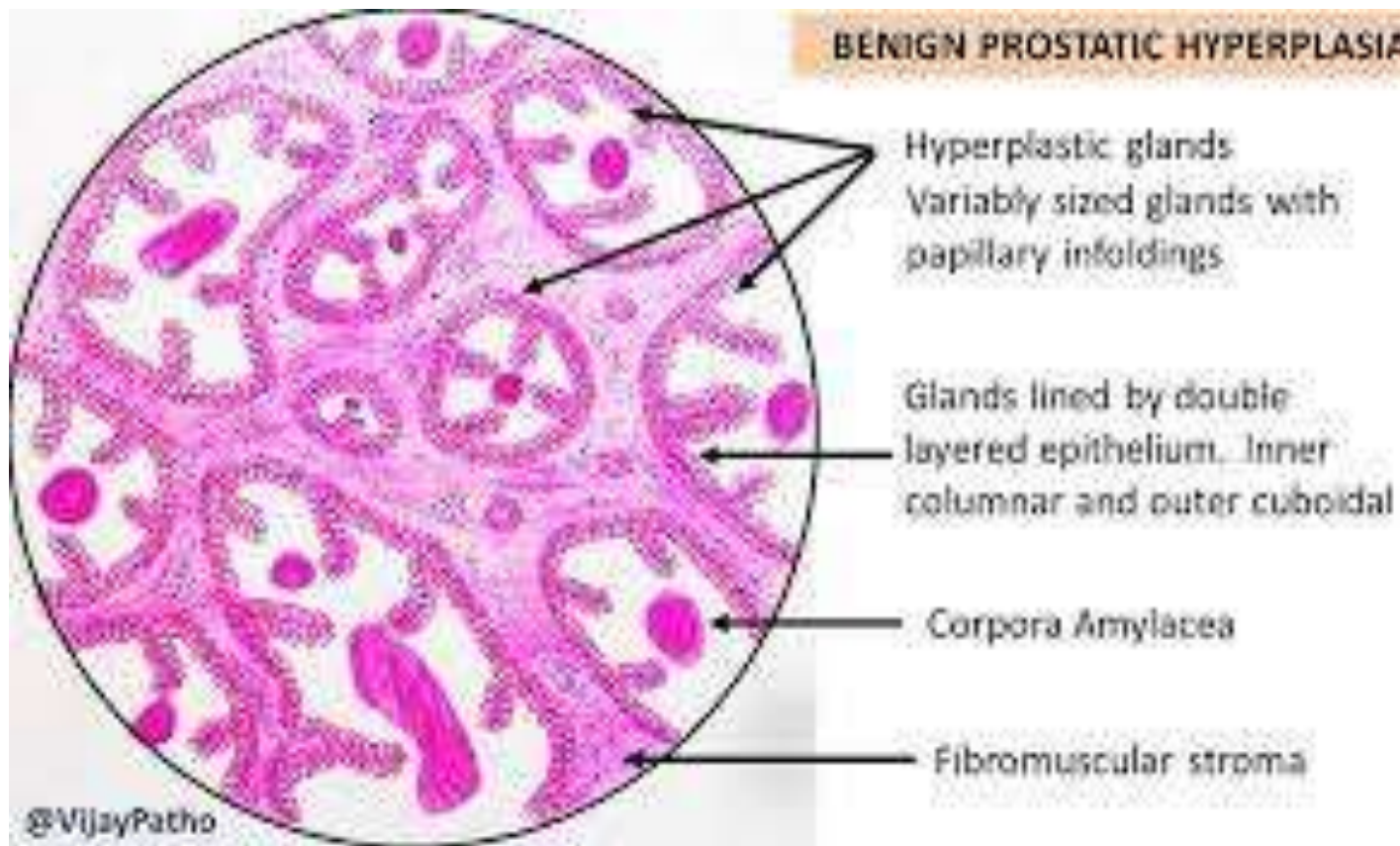
- ▶ Enlarged prostate is nodular, smooth and firm weigh 2–4 times its normal weight that is may weigh upto 40–80gm

Histologically

In every case there is hyperplasia of all **3 tissue elements** in varying proportions- **glandular, fibrous and muscular**


- ❑ **Glandular hyperplasia-** the lining epithelium is two layered the inner tall **columnar** mucus secreting with poorly defined borders and outer **cuboidal** to flattened epithelium.
- ❑ Fibromuscular hyperplasia

BENIGN PROSTATIC HYPERPLASIA

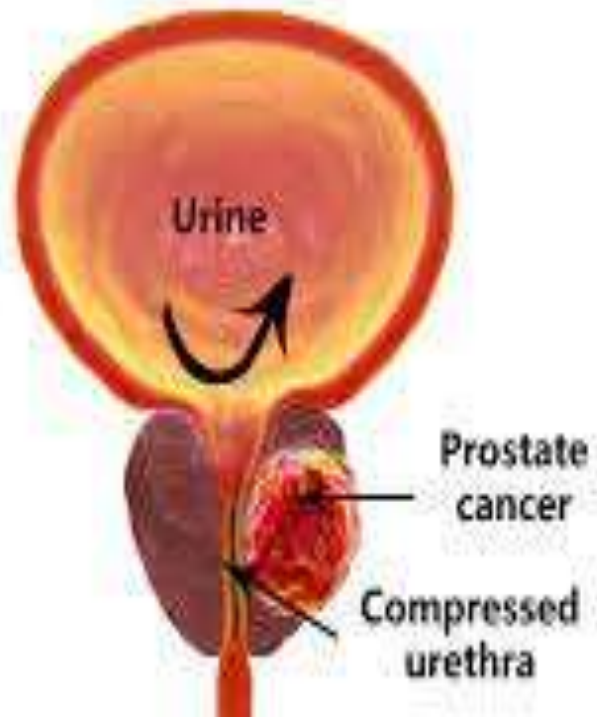


Carcinoma of prostate



- ▶ Cancer of prostate is the second most common form of cancer in males followed in frequency by lung cancer.
 - ▶ It is a disease of men above age of 50yrs
 - ▶ Prevalence increased with increasing age
- 

PROSTATE CANCER



Types

- ▶ **Latent carcinoma**

this found unexpectedly as a small focus of carcinoma in the prostate during autopsy studies in men

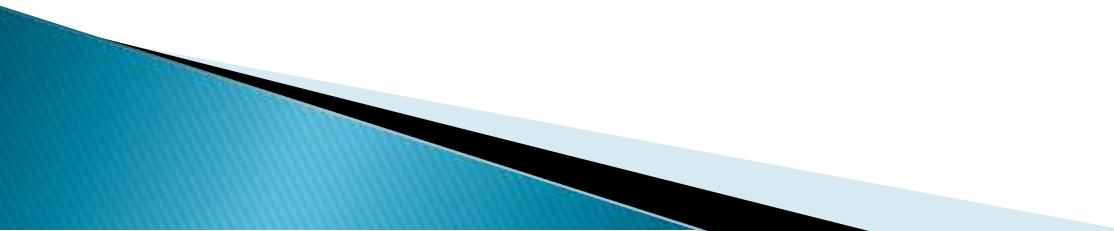
- ▶ **Incident carcinoma**

Incidental prostate cancer is defined as clinically inapparent **tumor** that is neither palpable nor visible by imaging. **Incidental carcinoma** is found in 3%-16% of pathology specimens of patients undergoing BPH surgery and it involves less than 5% of resected tissue.

- ▶ **Occult carcinoma**

this is the type in which the patient has no symptoms of prostatic carcinoma but show evidence of metastases on clinical examination and investigation

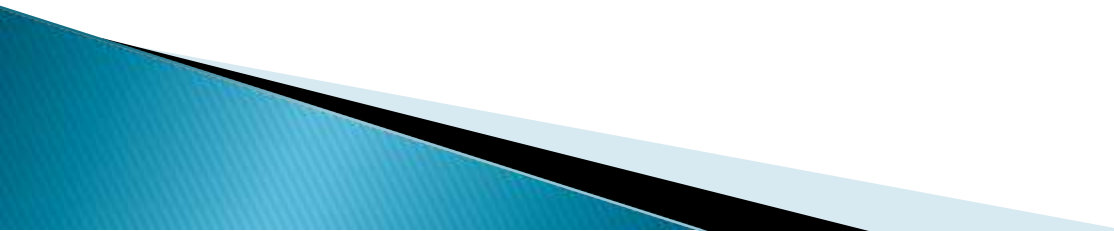
Etiology and pathogenesis

- ▶ Etiology and pathogenesis of tumor development is not clear
 - ▶ Hormonal etiology has been suspected
 - ▶ First degree relatives of patients have an increased risk
 - ▶ Environmental influence
- 

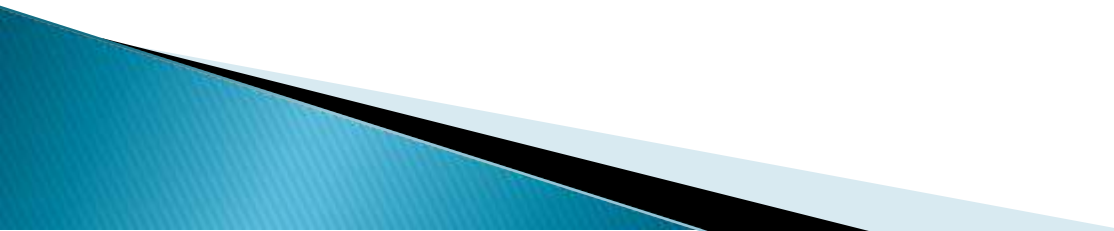
Pathology

- ▶ Carcinoma of prostate common in peripheral part (posterior lobe) of the gland
- ▶ Irregular hard nodule on digital rectal examination
- ▶ As they affect posterior posterior lobe the symptoms produced by urethral obstructionis late compared to BPH

▶ **Microscopy**

- ▶ Tumors are adenocarcinoma
 - ▶ The glands are arranged back to back and infiltrate the adjacent stroma
 - ▶ The neoplastic glands are lined by single layer of cuboidal cells
 - ▶ Tumor spreads via lymphatics to pelvic lymph node
 - ▶ It may also spread to rectum,,urinary bladder and other pelvic structures.
- 

Clinical features

- ▶ Silent in initial stage
 - ▶ Increased PSA (prostate specific antigen)
 - ▶ Other tumor markers include prostatic acid phosphatase (PAP) and alkaline phosphatase.
 - ▶ Alkaline phosphatase increase when there is metastasis of prostatic cancer to the bone
- 

Carcinoma of the Penis



- ▶ Carcinoma of the penis is considered to be an environmentally induced cancer. It is related to the poor genital hygiene and in uncircumcised men over 40years of age

Etiology

- ▶ Smoking
- ▶ Infection with human papiloma virus types 16 and 18

Pathology

▶ **Grossly**

- They are grey, crusted, papular lesions situated on the glans or prepuce. Infiltration into underlying connective tissue causes induration and ulceration

➤ **Microscopy**

- Keratinizing squamous cell carcinoma
- Spread occurs to inguinal lymph nodes and infrequent to distant sites

