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XIX. Diseases of the Urinary System

Calculus			
Urethra (prostatic)		•	Shows a stone
	The stone:	•	In the prostatic part of the urethra
		•	Single
		•	Small
		•	Rounded
		•	Greyish-white
		•	Firm in consistence







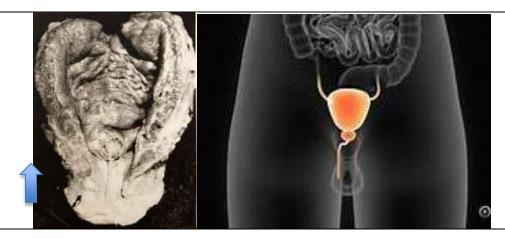
N.B.I:

Urethral calculus:

A rare condition; usually from renal calculosis (or a vesical one).

Sequels and complications:

- 1. Hypertrophy of the bladder.
- 2. Hydronephrosis.
- 3. Complications of obstruction of urinary outflow.



N.B.2:

Diseases of the urethra

I. Inflammatory:

1. Acute non-specific (staphylococcal, streptococcal, pneun.ococcal and B.coli etc.).

2. Acute gonococcal urethritis:

• After 2 days to 2 weeks from infection by sexual contact \rightarrow burning pain and pus at meatus \rightarrow red everted external urethral opening.

Complications:

- (a) Inflammation and abscess) of peri-urethral tissue, prostate, seminal vesicles and epididymis.
- (b) Spread \rightarrow septicaemia, pyaemia, endocarditis and *arthritis*.
- (c) Urethral stricture by fibrosis (at anterior portion and bulbo-membranous).
- (3) Reiter's disease (urethritis associated with diarrhea, conjunctivitis and arthritis).
- 4. Chronic non-specific inflammation.
- 5. Chronic specific or granulomatous:
 - (a) Tuberculosis (in the posterior part of the cavernous portion) → tubercles (yellowishgrey), nodules (caseating) and ulcers (undermined edges).
 - (b) Syphilis (primary stage \rightarrow chance and secondary stage \rightarrow mucous patches).
 - (c) Bilharzia: Usually in the posterior urethra at the roof (site of venous plexus); and, forms bilharzial scarring but no stricture i.e. in spite of the presence of extensive scarring, the lumen of the prostatic urethra (unlike that of the penile one), is rarely narrowed sufficiently to give rise to any obstructive symptom.
 - Bilharzial infiltration may occur to adjacent tissues (peri-urethral, scrotum and perineum)
 + secondary infection (pyogenic on top of bilharzial lesion) → breaking down of tissue
 → urethral fistula which is rather difficult to cure as it may recur unless surgically
 removed with its whole track.

II. Neoplastic:

1. Benign:

- (a) True papilloma: Sessile (in anterior urethra); villous (in posterior urethra).
- (b) Fibroma and myoma.

2. Malignant:

(a) Primary.

- 1. Carcinoma (papillary, annular or ulcerative):
- Invades locally, ulcerates and destroys and sends metastases to regional lymph nodes and distant organs.
- 2. Sarcoma and malignant lymphoma.
- (b) Secondaries From penis, prostate, bladder, vulva, vagina or cervix uteri.

III. Caruncle (a neoplastic-like tissue):

- Considered to be an inflammatory granulation tissue or a capillary haemangiomatous tissue or both.
- It occurs usually at the distal portion of the female urethra (within the meatal opening in the form of a small tender polypoid, crescentic, irregular, sessile, friable and reddish-grey mass).

IV. Mechanical disturbances:

- 1. Foreign bodies \rightarrow inflammation and obstruction.
- 2. Trauma (external or internal) \rightarrow laceration and rupture.
- 3. Calculi (primary or secondary); stationary \rightarrow ulceration, abscess and fistula; or, migrating \rightarrow pain, haematuria and retention.
- 4. Obstruction (congenital, inflammatory, neoplastic or mechanical).