






XIX. Diseases of the Urinary System

Calculus		
Urethra (prostatic)	<ul style="list-style-type: none"> • Shows a stone 	
	<p>The stone:</p> <ul style="list-style-type: none"> • In the prostatic part of the urethra • Single • Small • Rounded • Greyish-white • Firm in consistence 	
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<p>N.B.1: Urethral calculus: <i>A rare condition; usually from renal calculosis (or a vesical one).</i></p> <p>Sequels and complications:</p> <ol style="list-style-type: none"> 1. Hypertrophy of the bladder. 2. Hydronephrosis. 3. Complications of obstruction of urinary outflow. 		
		
<p>N.B.2: Diseases of the urethra I. Inflammatory: I. Acute non-specific (staphylococcal, streptococcal, pneumococcal and B.coli etc.).</p>		

2. Acute gonococcal urethritis:

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

Complications:

- (a) Inflammation and abscess of peri-urethral tissue, prostate, seminal vesicles and epididymis.
- (b) Spread → 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 (yellowish-grey), nodules (caseating) and ulcers (undermined edges).
- (b) **Syphilis** (primary stage → chancre and secondary stage → 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 haemangiomas 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 → inflammation and obstruction.
2. Trauma (external or internal) → laceration and rupture.
3. Calculi (primary or secondary); stationary → ulceration, abscess and fistula; or, migrating → pain, haematuria and retention.
4. Obstruction (congenital, inflammatory, neoplastic or mechanical).