
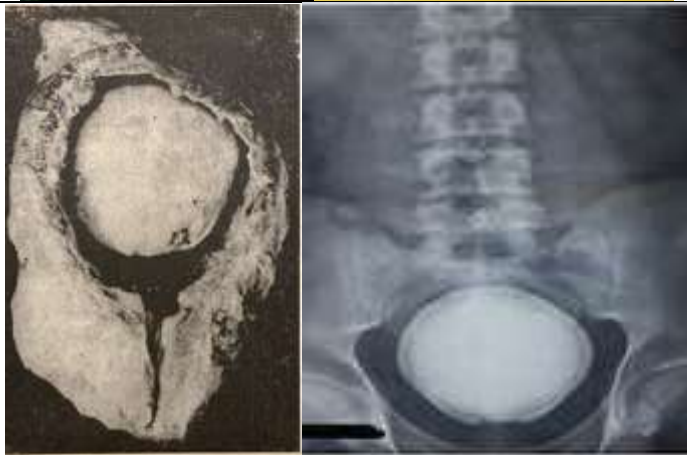


XIX. Diseases of the Urinary System

Calculus	
<i>Urinary bladder:</i>	<ul style="list-style-type: none"> • Shows a calculus
<i>The calculus:</i>	<ul style="list-style-type: none"> • Large (about a hen's egg) • Rounded (slightly ovoid) • With an almost smooth surface • Chalky-white • Solid but friable
	
	
<p>N.B.:</p> <ul style="list-style-type: none"> • This is an example of the pure form of phosphate stone of the urinary bladder. • It is usually single (occasionally multiple). <p>Calculi :</p> <ol style="list-style-type: none"> 1. Primary (originating in the bladder) due to retention of urine and infection. <ul style="list-style-type: none"> • They are of mixed composition (calcium, ammonium and magnesium phosphates, carbonates, urates, etc.). 2. Secondary (originating in the kidney and renal pelvis → passing into bladder) <ul style="list-style-type: none"> • Clinically, either no symptoms (silent) or → chronic irritation, obstruction and inflammation → frequent painful micturition, haematuria and pyuria. 	



Other types of bladder stones

RENAL CALCULI

- *↑ INCIDENCE IN MALES OVER AGE 40.
- *NAUSEA & VOMITING
- *PAIN RADIATES IN FLANK AREA
- *HEMATURIA
- *SHARP, SUDDEN, SEVERE PAIN: (MAY BE INTERMITTENT DEPENDING ON STONE MOVEMENT)

*DIAGNOSIS:

- UA
- CYSTOSCOPY
- IVP
- RENAL STONE ANALYSIS
- KUB (X-RAY)
- SERUM: CALCIUM
- OXALATE
- URIC ACID

*RISK FACTORS-ETIOLOGY

- INFECTION
- URINARY STASIS
- IMMOBILITY
- HYPER CALCEMIA
- ↑ URIC ACID
- ↑ URINARY OXALATE LEVEL

© 1994 Nursing Education Consultants

Stricture		
<i>Urethra:</i>	<i>Wall:</i>	Is thickened Shows fibrosis
	<i>Lumen:</i>	Is narrowed

N.B.:

Narrowing (stricture) of the urethra may be due to the formation of excessive fibrous tissue in the wall and subsequent contraction.

Stricture of the urethra:

I. Inflammatory:

Gonorrhoeal:

- Stricture may be: Single or multiple
- ***Site:*** *Bulb or anterior urethra.*

II. Traumatic:

1. *Rupture from a fall on perineum.*
2. Injury by instruments.

- ***Site:*** Membranous urethra.

III. Congenital defect:

- Valve-like fold of mucosa.
- ***Site:*** Posterior urethra.

Effects of stricture of urethra:

1. Bladder:

- Hypertrophy.
- Dilatation.

2. Ureters and renal pelvis:

- Dilatation.

3. Kidneys:

- Hydronephrosis (bilateral).
- Infection (ascending pyelonephritis).

The effects, in general, resemble those produced by prostatic enlargement and obstruction but with the following two differences:

1. **No residual urine.**
2. **Straining helps micturition.**