XIX. Diseases of the Urinary System

Pyonephrosis IV-1.3142

Kidney:

- Ensheathed in a fibro-fatty layer
- Surface is irregularly-lobulated
- Shows atrophy of the parenchymal tissue
- Appears as a thin sac filled with pus
- Gives the false appearance of enlargement

Renal pelvis (and ureter):

- Obstructed (partly)
- Distended with suppurative material





N.B.:

- On opening the pyonephrotic kidney a mere shell is left of renal parenchyma and the picture simulates a **bag of pus** due to extreme dilatation of pelvis and calyces and their distension with thick creamy pus.
- These appear as cavities inter-communicating with each other and opening into the distended pelvis.
- This condition may be a consequence of:
- 1.) Progressive suppuration and destruction often with the presence of a calculus (within the pelvis or within the ureters).
- 2.) An infected hydronephrosis.
- 3.) Tuberculous pyonephrosis.
- 4.) Progressive acute pyelonephritis if an element of obstruction existed from the start.
- The kidney will be damaged by
- (1) The infective element of pyelonephritis and
- (2) The hydro-nephrotic atrophy produced by the progressive back-pressure.





Kidney:	Size:	Slightly increased (large or swollen)			
External surface:		• Pale			
	Capsule:	• Tense			
		• Smooth (most parts)			
Subcapsular surface:		Scattered areas of abscesses			
		Abscesses →:	With centralSlightly-rai	shape and yellow Il necrosis and su sed margins y congested zone of tline	ppuration
	Consistence:	• Soft			
	Cut surface:	• Streaked yellow			
Cortex:		 Shows the yellow areas to be rounded lesions Is more affected than the medulla 			
	Medulla:	• Yellow streaks			

N.B.:

Pyaemic abscesses of the kidney may be a part of general (systemic) pyaemia (common) or other causes (rare); death may be due to septicaemia.

Sources of infection -

- 1. Carbuncle of kidney.
- 2. Acute bacterial endocarditis.
- 3. Acute osteomyelitis.
- 4. Acute suppurating middle ear (otitis media).
- 5. Puerperal sepsis.