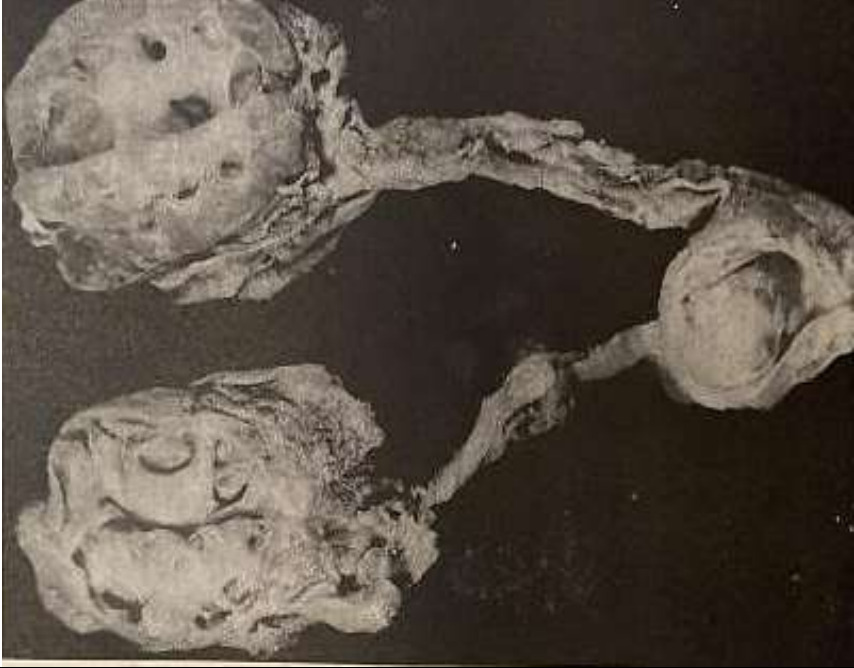


XIX. Diseases of the Urinary System

Carcinoma (bladder), Hypernephroma (kidney)			
<i>Kidney:</i>			<ul style="list-style-type: none"> • Shows a tumour • Malignant in appearance
	<i>The tumour:</i>		<ul style="list-style-type: none"> • Variegated cut surface • Has the characteristic features of hypernephroma
<i>Urinary bladder:</i>		<i>Shows:</i>	<ul style="list-style-type: none"> • Dirty yellowish-grey sandy patches • A tumour
		<i>The tumour:</i>	<ul style="list-style-type: none"> • Is infiltrating the wall (malignancy) • Fungating and ulcerating
		<i>The ulcer:</i>	<ul style="list-style-type: none"> • Is large • Everted raised edges • Necrotic neoplastic floor
			
<i>N.B.:</i>			
<ul style="list-style-type: none"> • <i>Histologically, the tumour in the kidney proved to be a hypernephroma; and, that in the bladder to be a squamous cell carcinoma.</i> • <i>There was, as well, evidence of Bilharziasis of the urinary bladder.</i> 			
<i>Possible causes of death:</i>			
<ol style="list-style-type: none"> 1. Obstruction of ureters and its sequels. 2. Septic infection of the kidneys. 3. Metastatic tumours. 4. Uraemia. 5. An intercurrent infection (unrelated to the urinary system). 			

NB:

Malignant tumours of the urinary bladder have got many classifications, one of which is:

1. *Carcinoma (common; more in males).*
2. *Sarcoma (rare; large fleshy, greyish-white and soft-firm in consistence).*
3. *Rhabdomyosarcoma (rare).*

Metastases in bladder from primary cancer elsewhere by:

- (a) *Direct extension (common) from cervix and corpus uteri, prostate and rectum,*
- (b) *Implantation and*
- (c) *Lymphatics and blood stream (from stomach, lungs and breast).*

N.B.3:

Gross types of carcinoma of the bladder (in their order of frequency in Egypt):

1. **The nodular-fungating type (so-called protuberant):** Occupies almost the whole bladder-cavity; is slowly-infiltrating the bladder-wall; is chiefly a squamous cell carcinoma which is often of low grade malignancy.
2. **The Ulcerating type:** A characteristic malignant ulcer; the tumour-base is infiltrating deeply the bladder-wall; may be adenocarcinoma (mucoïd or non-mucoïd).
3. **The diffuse type:** Produces thickening of the bladder-wall; is a diffusely-infiltrating, rapidly growing tumour; is chiefly anaplastic carcinoma.
4. **The papillary type:** Is characterized by a fronded appearance.



Staging (AJCC 2010)

Primary Tumor (T)

TX	Primary tumor cannot be assessed
T0	No evidence of primary tumor
Ta	Noninvasive papillary tumor
Tis	Carcinoma in situ
T1	Tumor invades the lamina propria (subepithelial connective tissue) but not beyond
T2	Tumor invades the muscularis propria
pT2a	Tumor invades superficial muscle (inner half)
pT2b	Tumor invades deep muscle (outer half)
T3	Tumor invades perivesical tissue
pT3a	Microscopically
pT3b	Macroscopically (extravesical mass)
T4	Tumor invades any of the following: prostate, seminal vesicles, uterus, vagina, pelvic or abdominal wall
T4a	Tumor invades prostatic stroma, uterus, vagina
T4b	Tumor invades pelvic or abdominal wall