

GENITAL AND URINARY TRACT INJURIES

A. Perforating and Penetrating Wounds of Kidney.

Ain El Turck .....	6
Naples .....	1
Rome .....	16
Leghorn .....	<u>11</u>
	34 cases

Right side .....	18
Left side .....	15
Bilateral .....	<u>1</u>
	34 cases

1. Thoraco-abdominal wounds with renal involvement - 16 cases.

Right Side: - 8 cases.

Liver involvement - 2 cases  
Lung involvement - 1 case

Left Side: - 8 cases.

Spleen involved - 6 cases  
Descending colon involved - 1 case  
Stomach and ileum involved - 1 case

Surgical Approach:

Thoracotomy - 6 cases  
Thoracotomy and laparotomy - 1 case  
Laparotomy - 9 cases

Renal Surgery:

Nephrectomy - 5 cases  
Secondary nephrectomy - 2 cases  
Conservative surgery of kidney - 9 cases  
Secondary removal, foreign body from kidney pelvis - 7 cases

2. Wounds of Abdomen with renal involvement - 7 cases.

Right Side: - 4 cases.

Liver involved - 2 cases  
Colon involved - 2 cases  
Adrenal - 1 case

Left Side: - 3 cases.

Colon involved -- 1 case  
Ileum involved -- 1 case  
Stomach, pancreas involved -- 1 case

Surgical Approach:

Laparotomy - 7 cases.

Renal Surgery:

Nephrectomy - 1 case  
Conservative renal surgery - 6 cases.

3. Wounds in which the kidney alone was involved: - 10 cases.

Surgical Approach:

Lumbar extraperitoneal - 5 cases  
Subcostal transverse lap - 2 cases  
Laparotomy (midline or lateral rectus) - 3 cases

Renal Surgery:

Nephrectomy - 3 cases  
Conservative renal surgery - 7 cases  
Secondary removal of foreign body from kidney - 2 cases

4. Bilateral renal injury : - 1 case.

Associated Injury - Fracture of spine L 1 - 3.

Transverse traumatic myelitis. D - 12 right, L - 1, left.

Missile in above wounds:

Bullet - 9 cases.  
Artillery shell fragments - 22 cases  
Aerial Bomb fragment - 1 case  
Mine fragments - 2 cases.

Disposition - "C" on all above cases.

B. Blunt Subcutaneous Renal Injury.

Ain El Truck ..... 9  
Rome ..... 9  
Leghorn ..... 2  
20 cases

Right ..... 5  
Left ..... 15  
20 cases

1. Mode of Injury.

a. Vehicle accidents - 9 cases

Jeep ran over land mine - 2 cases  
Hit by vehicle - 4 cases  
Injured while in vehicle - 3 cases

b. Shellfire - 3 cases

Hit in flank by flying rock - 1 case  
Knocked against building - 1 case  
Injured by collapsing building - 1 case

c. Miscellaneous - 8 cases

Blow to loin by:

Boom of crane - 1 case  
Mess trays - 1 case  
Baseball - 1 case  
Shoulder of opposing player during football game - 1 case  
Injured during torpedoing of ship - 1 case  
Fall down embankment - 1 case  
Jumping out of plane and hitting tail assembly of plane - 1 case  
Fall when thrown into ravine by shock from x-ray machine - 1 case

2. Associated Injuries: - 10 cases.

- a. Severe hemothorax, lacerations of knees, cerebral concussion, severe.
- b. Cerebral concussion.
- c. Penetrating wound, right index finger, abrasion of right leg.
- d. Contusion of ascending colon and laceration of liver.
- e. Hemorrhage about lumbar nerve roots, left, with partial anesthesia, left leg.
- f. Fracture, compound, comminuted, right olecranon, with dislocation of elbow.
- g. Fracture, simple, 9, 10, 11, ribs, left.
- h. Fracture, simple, 7, 8, ribs, left.
- i. Fracture, compound, comminuted, tibia and fibula, right.
- j. Contusion, left ankle; fracture, simple, left acetabulum

Conservative treatment - 11 cases

Surgery - 9 cases

3. Early Surgery elsewhere:

Nephrectomy - 2 cases

Exploratory laparotomy for suspected intraabdominal injury-1 case

4. Early Surgery at 12th General Hospital:

Nephrectomy - 1 case.

5. Late Surgery at 12th General Hospital:

a. Nephrectomy - 1 case

18 days after injury because of recurrent severe hemorrhage and demonstration of severe laceration on retrograde pyelography.

b. Decapsulation and drainage for subcapsular abscess - 1 case.

c. Nephrectomy for secondary stone - 1 case.

d. Ureterotomy for secondary stone - 1 case.

e. Nephrectomy for hydronephrosis - 1 case.

Disposition: - 20 cases.

"A" duty - 5 cases

"B" duty - 8 cases

"C" duty - 7 cases

Operated Cases: - 9 cases ( "B" - 7; "C" - 2)

Nephrectomies - 7 cases ("B" - 5; "C" - 2)

One to "C" because of severe associated abdominal injury and necessity of long convalescence. Condition excellent at time of evacuation; ambulant and all wounds healed. One to "C" because of end of campaign and all "B" cases were being evacuated to the Zone of Interior.

Ureterotomy - 1 case - to temporary "B" duty

Decapsulation and drainage of subcapsular abscess - 1 case - B duty

Conservatively Treated Cases: - 11 cases.

A duty - 5 cases.

B duty - 1 case because of associated injury.

C duty - 5 cases. All because of associated injuries:

a. Because of severe fractures - 3 cases.

b. Because of peripheral nerve injury - 1 case

c. Because of severe chest injury 1 case ( this case had a functionless left kidney and would require surgery later)

C. Ureteral Injuries:

Ain El Turck - 4 cases.

Right side - 2 cases  
Left side - 1 case

Penetrating Wounds - 3 cases



Missile: Bullet, 2 cases  
shell fragment, 1 case.

Associated Injuries:

- a. Transverse colon and second part of duodenum - 1 case
- b. Ileum and posterior wall of urinary bladder - 1 case
- c. Ileum, urinary bladder, rectum, anus, lumbe-sacral plexus, right - 1 case

Part of ureter injured: in

- a. (above) - upper third
- b. (above) - middle third
- c. (above) - lower third

Blunt Subcutaneous Injury - 1 case (motorcycle accident).  
Laceration of upper third of ureter, left.

Surgical Treatment:

Penetrating wounds:

In the three above cases laparotomy for care of intra abdominal injury. In two, the ureteral injury was recognized at the time and drainage provided to the site of injury. In the third case (injury to pelvic ureter) the ureteral injury was overlooked until urological study was carried out at the 12th General Hosp. Conservative treatment.

Disposition: - 3 cases - "C" duty.

Blunt Subcutaneous Injury - No surgery was performed. Original intravenous urography shortly after injury revealed slight extravasation about upper ureter. Subsequently, a low grade chronic extravasation developed and persisted. Evacuated for surgery because of closing of hospital.

D. Penetrating and Perforating Wounds of the Urinary Bladder.

Ain El Turck .....	19
Naples .....	2
Rome .....	4
Leghorn .....	4
	29 cases

Missile: Shell fragment, 12  
Bomb fragment, 2  
Grenade fragment, 1  
Bullet, 14

12, multiple  
17, single

Wound of Entrance:

Buttock,	12	Supra pubic region,	5
Sacral region,	3	Coxal region,	1
Lumbar region,	1	Perineum,	2
Lower lateral quadrants of abdomen,			4
Thigh,			1
Extra-peritoneal ( 3 of these questionably so)			17
Intraperitoneal			7
Both, (1 questionably so)			4

Fracture of Pelvic Bones - 13 cases

Associated injuries

Bladder alone - 5 cases  
Bladder sciatic nerve (tibial component) - 1 case  
Bladder, lumbosacral plexus - 1 case  
Bladder, spermatic cord - 1 case  
Bladder, ileum - 6 cases  
Bladder, ileum, ureter - 1 case  
Bladder, ileum, urethra - 1 case  
Bladder, urethra, lumbosacral plexus - 1 case  
Bladder, rectum - 4 cases  
Bladder, rectum, ileum - 1 case  
Bladder, rectum, with ileum, lumbosacral plexus, ureter - 1 case  
Bladder, rectum, sciatic nerve - 1 case  
Bladder, rectum, descending colon - 1 case  
Bladder, sigmoid colon - 2 cases  
Bladder, sigmoid, ileum - 1 case

Surgery

Laparotomy - 25 cases  
Delayed laparotomy - 1 case  
No laparotomy - 2 cases

Drainage of Bladder

1 Cystostomy - 18 cases  
Delayed cystostomy - 4 cases  
Trocar cystostomy - 1 case  
Pezzer through wound - 2 cases  
Inlying catheter alone - 3 cases

Bladder Wounds in which Rectum was also involved - 8 cases

Sigmoid colostomy - 5 cases  
Delayed sigmoid colostomy - 1 case  
Colostomy descending colon - 1 case  
No colostomy (?) - 1 case

Bladder Wounds in which Colon was also involved - 4 cases

Wound in colon was exteriorized as colostomy - 4 cases

Disposition - "C" - 29 cases.

E. Rupture of Urinary Bladder. - 3 cases

Rome ..... 1 case  
Leghorn .... 2 cases

Manner in which injured:

Jeep accidents - 2 cases  
Fell from 3rd floor while intoxicated - 1 case

Location of injury:

Intraperitoneal - 2 cases  
Intra and extraperitoneal - 1 case

Associated Injuries:

Pelvic fracture and compound fracture, left fibula - 1 case  
Pelvic fracture, fracture, simple, right radius, fracture, simple, right femur, and fracture, compound, comminuted, nasal bone - 1 case

Bladder Surgery:

Laparotomy, suture of bladder wall and inlying urethral catheter - 2 cases  
Laparotomy, suture of bladder wall and suprapubic cystostomy - 1 case.

One case died - was operated upon 14 days after injury.

F. Perforation of Bladder by Bone Fragments in Pelvic Fracture.

Rome ..... 1 case

Leghorn ..... 1 case

In both cases there was severe urethral injury. As part of the surgical management of the urethral injury suprapubic cystostomy was carried out. During this procedure the bladder wound was sutured.

Disposition:- "C" - 2 cases.