



ARMED FORCES INSTITUTE OF PATHOLOGY
Office of the Armed Forces Medical Examiner
1413 Research Blvd., Bldg. 102
Rockville, MD 20850
301-319-0000



AUTOPSY EXAMINATION REPORT

Name: Lateef, Hatem K	(b)(6)	Autopsy No.:	(b)(6)
ISN:	(b)(6)	AFIP No.:	(b)(6)
Date of Birth:	(b)(6)	Rank:	Detainee
Date of Death:	(b)(6)	Place of Death:	Iraq
Date/Time of Autopsy:	27 AUG 2007 @1100 hrs	Place of Autopsy:	Port Mortuary, Dover AFB,
Date of Report:	20 NOV 2007		Dover, Delaware

Circumstances of Death: It is reported that this detainee was admitted to the 31st Combat Surgical Hospital on 4 JUL 2007 after receiving numerous battlefield injuries including shrapnel injuries, lacerations of the liver, kidney damage, and brain injury. He clinically suffered multiple complications including hemothorax, pneumothorax, bowel perforation, diabetic ketoacidosis, cardiac arrest (two times), congestive heart failure, anoxic brain injury, and peritonitis. Despite treatment, this detainee died on (b)(6) 2007.

Authorization for Autopsy: Armed Forces Medical Examiner, per 10 U.S. Code 1471

Identification: Presumptive identification is established by review of accompanying paperwork. Post-mortem dental charting, fingerprints and a specimen suitable for DNA comparison are obtained.

CAUSE OF DEATH: **Complications of blast and blast fragmentation injuries.**

MANNER OF DEATH: **Homicide.**

EXTERNAL EXAMINATION

The body is that of a well-developed, well-nourished male clad in a hospital gown. The body exhibits generalized edema, weighs 156 pounds, is 69 inches in length, and appears compatible with the reported age of 21 years. The body is cold. Rigor has passed. Lividity is present and fixed on the posterior surface of the body, except in areas exposed to pressure. Skin slippage is identified on the extremities and face.

The head is normocephalic, and the scalp hair is short and black. The irides are brown. The corneae are cloudy. The conjunctivae are congested. The sclerae are white. The external auditory canals, external nares and oral cavity are free of foreign material and abnormal secretions. The nasal skeleton and maxilla are palpably intact. The lips are without evident injury. The teeth are natural. Examination of the neck reveals no evidence of injury.

Injuries of the torso and extremities are described below. No evidence of injury of the ribs or the sternum is evident externally. The abdomen is protuberant. Healed surgical scars are noted on the abdomen. The external genitalia are those of an adult male. The anus is without note. The scrotum is swollen.

The fingernails are intact. Decubitus ulcers are identified on the lower back overlying the sacrum (6 x 2 inches), the buttock (1/4 inch), the back of the head (1 inch), the medial surface of the right thigh (4 x 4 inches), and the lateral surfaces of both heels (right - 2 x 1 inch, left - 1 1/2 x 3/4 inches).

CLOTHING AND PERSONAL EFFECTS

- None

MEDICAL INTERVENTION

- Nasogastric tube
- IV access (left subclavian; left groin)
- Laparotomy scar (10 inch vertical with a 1 inch area of granulation tissue on the superior, and a 1 1/2 inch area of granulation tissue on the inferior aspects)
- Foley catheter and attached urine bag
- EKG leads on the torso
- Multiple gauze dressings
- Sutures located in multiple loops of small and large bowel
- Tracheostomy
- A plastic bag is affixed to the left lower quadrant of the abdomen overlying a 1 inch stapled incision

RADIOGRAPHS

A complete set of postmortem radiographs is obtained.

EVIDENCE OF INJURY

The ordering of the following injuries is for descriptive purposes only, and is not intended to imply order of infliction or relative severity. All wound pathways are given relative to standard anatomic position.

HEAD/NECK:

On the left side of the face, lateral to the left eye, is a 1/4 inch scar. Radiographically there is a minute fragment of radiopaque foreign material (not recovered).

TORSO:

There is a 1 x 1 inch healing laceration on the right side of the chest, a 1/4 x 1/4 inch healing laceration of the center of the chest just left of the midline, and two healing lacerations of the left side of the chest lateral to the left nipple (1/2 x 1/2 inch and 1 1/2 x 1 inch). Within the superior aspect of the above described laparotomy scar is a 1/4 x 1/4 inch healing laceration. On the right side of the abdomen are two 1/8 inch healing lacerations. On the left side of the abdomen are two healing lacerations that measure 1/2 and 1 1/2 inches in greatest dimension. On the right lower back is a 1/4 x 1/4 inch healing laceration. Multiple radiopaque foreign bodies are detected in the torso radiographically. However, due to their small size and limited evidentiary value these foreign bodies are not recovered. One thousand two hundred and fifty milliliters of serosanguineous fluid is identified in the right chest cavity, and 350 mL of serosanguineous fluid is identified in the left chest cavity. One liter of serosanguineous fluid is identified in the abdomen with mucous and frank pus present. There is a 250 mL of clotted blood identified in the left lower quadrant of the abdomen. Within the area of the clotted blood, there is a small amount of green stool. There is a 1 inch superficial laceration of the left lobe of the liver and a 1/2 inch superficial laceration of the spleen. Both of these wounds appear to be healing and are associated with old hemorrhage into the surrounding tissues. There are multiple defects of the small and large bowel that are sutured. The left scapula is fractured. Posterior cutdowns revealed hemorrhage into the soft tissues of the right buttock.

EXTREMITIES:

Right upper extremity - There is a 1 inch healing laceration of the posterior right arm. A cutdown of the forearm reveals hemorrhage into the anterior muscle group of the forearms.

Left upper extremity - There is a 1/2 inch healing laceration of the anterior forearm, and two 1/8 inch healing lacerations of the posterior forearm.

Right lower extremity - There is a 1/4 inch abrasion of the distal anterior thigh, and 3/4 x 1/4 inch healing laceration of the proximal right shin. There is a 1/4 inch healing laceration of the posterior right thigh, and four (4) 1/4 inch healing lacerations of the lateral right ankle.¹

INTERNAL EXAMINATION

BODY CAVITIES:

The body is opened by the usual thoraco-abdominal incision and the chest plate is removed. The ribs, sternum, and vertebral bodies are visibly and palpably intact. Multiple adhesions are identified in both chest cavities and in the abdomen. All body organs are present in normal anatomical position. The subcutaneous fat layer of the abdominal wall is 1/8 inch thick.

HEAD AND CENTRAL NERVOUS SYSTEM

The scalp is reflected. The galeal and subgaleal soft tissues of the scalp are free of injury. There are no skull fractures. The calvarium of the skull is removed. The dura mater and falx cerebri are intact. There is no epidural or subdural hemorrhage present. The leptomeninges are thin and delicate. The cerebral hemispheres are symmetrical. The structures at the base of the brain, including cranial nerves and blood vessels are intact. Clear cerebrospinal fluid surrounds the 1260-gram brain, which has unremarkable gyri and sulci. Coronal sections through the cerebral hemispheres reveal no lesions. Transverse sections through the brain stem and cerebellum are unremarkable. The atlanto-occipital joint is stable. The spinal cord is unremarkable. The entire brain is soft, however, this finding is most prominent in the brainstem.

NECK:

The anterior strap muscles of the neck are homogenous and red-brown, without hemorrhage. The thyroid cartilage and hyoid bone are intact. The larynx is lined by intact white mucosa. The tongue is free of bite marks, hemorrhage, or other injuries. Incision and dissection of the posterior neck demonstrates no deep paracervical muscular injury and no cervical spine fractures.

¹ The healing lacerations that are described most likely represent superficial and deep penetrating blast fragmentation injuries.

CARDIOVASCULAR SYSTEM:

The 310-gram heart is contained in an intact pericardial sac. The epicardial surface is smooth, with minimal fat investment. The coronary arteries are present in a normal distribution, with a right-dominant pattern. Cross sections of the vessels show wide patency. The myocardium is homogenous, red-brown, and firm. The valve leaflets are thin and mobile. The walls of the left ventricle, interventricular septum, and right ventricle are 1.2, 1.2, and 0.3 cm thick, respectively. The endocardium is smooth and glistening. The aorta gives rise to three intact and patent arch vessels. The renal and mesenteric vessels are unremarkable.

RESPIRATORY SYSTEM:

The upper airway is clear of debris and foreign material; the mucosal surfaces are smooth, yellow-tan and unremarkable. The pleural surfaces are smooth, glistening and unremarkable bilaterally. The pulmonary parenchyma is diffusely congested and edematous, exuding slight to moderate amounts of blood and frothy fluid; no focal lesions are noted. The cut surfaces are firm and red. The pulmonary arteries are normally developed, patent and without thrombus or embolus. The right lung weighs 880 grams; the left 690 grams.

HEPATOBIILIARY SYSTEM:

See Evidence of Injury. The 1230-gram liver has a smooth capsule. The cut surface of the liver has a nutmeg appearance. No focal nontraumatic lesions are identified. The gallbladder contains 10 ml of green-brown, mucoid bile; the mucosa is velvety and unremarkable. The extrahepatic biliary tree is patent, without evidence of calculi.

GASTROINTESTINAL SYSTEM:

See Evidence of Injury. The esophagus is lined by gray-white, smooth mucosa. The gastric mucosa is arranged in the usual rugal folds and the lumen contains 10 ml of brown fluid. The small and large bowels are described above. The pancreas has a normal pink-tan lobulated appearance and the ducts are clear.

GENITOURINARY SYSTEM:

The right kidney weighs 110 grams; the left 200 grams. The renal capsules are smooth and thin, semi-transparent and strip with ease from the underlying smooth, red-brown cortical surface. The cortex is dotted with numerous (less than 0.1 cm) abscesses. The calyces, pelves and ureters are unremarkable. White bladder mucosa overlies an intact bladder wall. The bladder is empty. The prostate gland and seminal vesicles are without note.

LYMPHORETICULAR SYSTEM:

See Evidence of Injury. The 320-gram spleen has a smooth, capsule covering red-purple, moderately firm parenchyma; the lymphoid follicles are unremarkable. Lymph nodes in the hilar, periaortic, and iliac regions are not enlarged.

ENDOCRINE SYSTEM:

The thyroid gland is symmetric and red-brown, without cystic or nodular change. The right and left adrenal glands are symmetric, with bright yellow cortices and red-brown medullae. No masses or areas of hemorrhage are identified.

MUSCULOSKELETAL SYSTEM:

No non-traumatic abnormalities of muscle or bone are identified.

ADDITIONAL PROCEDURES

1. Documentary photographs are taken by OAFME staff photographers.
2. Personal effects are released to the appropriate mortuary operations representatives.
3. Specimens retained for toxicology testing and/or DNA identification are: brain, heart, lung, kidney, liver, spleen, skeletal muscle, adipose tissue, blood, vitreous fluid, gastric contents, bile, and urine (from urine bag).
4. The dissected organs are forwarded with body.

MICROSCOPIC EXAMINATION

Lung (Slide 1) – There is extensive autolysis, congestion and edema. Intra-alveolar neutrophils are seen, consistent with an acute bronchopneumonia.

Spleen (Slide 1) – No significant pathological changes.

Kidney (Slide 2) – Numerous cortical abscesses are identified

Liver (Slide 3) – Necrosis is identified and confined to the peri-central hepatocytes. There is relative sparing of the peri-portal hepatocytes. These changes are consistent with centrilobular necrosis.

Brain (Slide 4) – There are changes consistent with anoxic brain injury and ischemia.

Heart (Slides 5, 6, 7) – Focal areas of granulomatous inflammation with calcifications are seen. There is focal sub-endocardial myocytolysis and necrosis. Special stains (periodic acid-Schiff, Gomori methenamine silver and Ziehl-Neelsen) are negative.

FINAL AUTOPSY DIAGNOSES:

- I. Blast and blast fragmentation injuries**
 - A. Multiple superficial and deep penetrating blast fragmentation injuries**
 - B. Multiple lacerations of the small and large bowel**
 - C. Clotted blood and stool is identified in the left lower quadrant of the abdomen**
 - D. Lacerations of the spleen**
 - E. Lacerations of the liver**
- II. Other findings:**
 - A. Anoxic brain injury**
 - B. Acute bronchopneumonia**
 - C. Acute pyelonephritis with abscess formation**
 - D. Changes consistent with peritonitis**
 - E. Centrolobular necrosis of the liver**
 - F. Granulomatous myocarditis**
 - G. Serosanguineous fluid is identified in both chest cavities and the abdomen**
 - H. Multiple adhesions are identified in both chest cavities and the abdomen**
- III. Medical therapy: As described above**
- IV. Postmortem changes: As described above**
- V. Identifying marks: None**
- VI. Toxicology (AFIP):**
 - A. VOLATILES: No ethanol is detected in the blood and vitreous fluid. Acetone is detected in the blood (11 mg/dL) and vitreous fluid (14 mg/dL). Trace amounts of 2-Propanol are detected in the blood and vitreous fluid.**
 - B. DRUGS: No screened drugs of abuse or medications are detected in the blood.**
 - C. CARBON MONOXIDE: The carboxyhemoglobin saturation in the blood was less than 1%.**
 - D. CYANIDE: No cyanide is detected in the blood.**

(REMOVE, REVERSE AND RE-INSERT CARBONS BEFORE COMPLETING THIS SIDE)

DISPOSITION OF REMAINS			
NAME OF MORTICIAN PREPARED REMAINS	GRADE	DISCHARGE NUMBER AND STATE	OTHER
INSTALLATION OR ADDRESS (b)(6)	DATE	SIGNATURE	
NAME OF CEMETERY OR CREMATORY	LOCATION OF CEMETERY OR CREMATORY		
TYPE OF DISPOSITION		DATE OF DISPOSITION	
REGISTRATION OF VITAL STATISTICS			
REGISTRY (Town and Country)	DATE REGISTERED	FILE NUMBER	
		STATE	OTHER
NAME OF FUNERAL DIRECTOR	ADDRESS		
SIGNATURE OF AUTHORIZED INDIVIDUAL			

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