



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



FINAL AUTOPSY REPORT

Name: MUTLIB, Ali Hussein

Interment Serial (b)(6)

Date of Birth: (b)(6) 946

Date of Death (b)(6) 2006

Date of Autopsy: 11 DEC 2006 @ 1200

Date of Report: 28 FEB 2007

Autopsy No: (b)(6)

AFIP No (b)(6)

Place of Death: Camp Bucca, Iraq

Place of Autopsy: Dover AFB Port Mortuary,
Delaware

Circumstances of Death: (b)(6) an Iraqi National male, was held as a detainee in Camp Bucca, Iraq. He was admitted to the Theater Internment Facility (TIF) on 17 November for heart and blood pressure problems. On (b)(6), (b)(6) became hypotensive and unresponsive. He expired despite cardiac resuscitative measures.

Authorization for Autopsy: Office of the Armed Forces Medical Examiner, in accordance with Title 10 US Code, Section 1471 (10 USC 1471).

Identification: Positive identification established by investigative agency

CAUSE OF DEATH: Severe Atherosclerotic Cardiovascular Disease

MANNER OF DEATH: Natural

AUTOPSY FINDINGS:

I. Severe Atherosclerotic Cardiovascular Disease

Heart: Cardiomegaly, 710 grams

Coronary arteries:

- i. Left main coronary artery – 60% stenosis with concentric calcification
- ii. Left anterior descending coronary artery – multifocal 95% stenosis
- iii. Right coronary artery - multifocal 95% stenosis

Concentric left ventricular hypertrophy – left ventricular thickness – 2.5cm;
septum 2.4 cm

Remote myocardial infarction, posterior-lateral left ventricle

Diffuse atherosclerosis of the abdominal aorta and iliac vessels with multiple erosive plaques

II. Lungs:

- a. Marked bilateral pulmonary edema (combined weight 2220 grams)
- b. Diffuse anthracotic pigment, pleura and parenchymal
- c. Emphysema
- d. Bronchopneumonia

III. Kidneys:

- a. Marked arteriolonephrosclerosis (clinical history of hypertension)

IV. Brain:

- a. Incidental arteriovenous malformation of the left pons, 0.5 cm

V. Toxicology:

- **VOLATILES:** The blood and vitreous fluid are examined for the presence of ethanol at a cutoff level of 20 mg/dL. No ethanol is detected.
- Peripheral blood contains less than 1% carboxyhemoglobin (COHgb) determined by spectrophotometry with a limit of quantitation of 1%. COHgb saturations of 0-3% are expected for non-smokers and 3-10% for smokers. Saturations above 10% are considered elevated and are confirmed by gas chromatography.
- There is no cyanide detected in the blood. The limit of quantitation for cyanide is 0.25 mg/L. Normal blood cyanide concentrations are less than 0.15 mg/L. Lethal concentrations of cyanide are greater than 3 mg/L.
- **DRUGS:** The blood is screened for acetaminophen, amphetamine, antidepressants, antihistamines, barbiturates, benzodiazepines, cannabinoids, chloroquine, cocaine, dextromethorphan, lidocaine, narcotic analgesics, opiates, phencyclidine, phenothiazines, salicylates, sympathomimetic amines and verapamil by gas chromatography, color test or immunoassay. The following drugs are detected:
 - Lidocaine is detected in the blood by gas chromatography and confirmed by gas chromatography/mass spectrometry
 - Acetaminophen is detected in the blood by color test and confirmed by immunoassay. The blood contains 17mg/L of acetaminophen as quantitated by immunoassay.

EXTERNAL EXAMINATION

The body is that of a well-developed, well-nourished, 71-inch tall, 202 pound male. Lividity is fixed on the posterior aspect of the body. Rigor has passed and the temperature of the body is cold, that of the refrigerator.

The scalp is covered with gray hair, with frontal balding. Facial hair consists of a gray beard and mustache. The irides are hazel and the conjunctivae are cloudy. The pupils are round and equal in diameter. The external auditory canals are unremarkable. The ears lobes have prominent creases and are otherwise unremarkable. The nares are patent and the lips are atraumatic. The nose and maxillae are palpably stable. The teeth are natural.

The neck is straight, and the trachea is midline and mobile. The chest is symmetric. The abdomen is protuberant. The genitalia are those of a normal adult circumcised male. The testes are descended and free of masses. Pubic hair is present in a normal distribution. The buttocks and anus are unremarkable.

The upper and lower extremities are symmetric and without clubbing or edema.

CLOTHING AND PERSONAL EFFECTS

- The deceased is clad in a hospital gown. Personal effects do not accompany the body.

MEDICAL INTERVENTION

- Endotracheal intubation; intravenous access devices in the right neck and left groin; needle marks in both wrists; Foley catheter; cardiac monitor pads anterior chest; bandage covering surgical incision right knee (stapled closed)

RADIOGRAPHS

- A complete set of postmortem radiographs is obtained and demonstrates no acute injuries aside from those discussed in the evidence of injury

EVIDENCE OF INJURY

- External injuries consist of mid-sternal contusion and internal examination reveals fractures of lateral right ribs 2-7 and lateral left ribs 2-6 (injuries consistent with cardiopulmonary resuscitation)
- Two contusions on the posterior right calf and ankle, 2 ½ x 1 and 3 x 1-inches, respectively

INTERNAL EXAMINATION

HEAD: The galeal and subgaleal soft tissues of the scalp are free of injury. The calvarium is intact, as is the dura mater beneath it. Clear cerebrospinal fluid surrounds the 1340 gm brain, which has unremarkable gyri and sulci. Coronal sections demonstrate sharp demarcation between white and grey matter, without hemorrhage or contusive injury. The ventricles are of normal size. The basal ganglia, cerebellum, and arterial systems are free of injury or other abnormalities. Examination of the mid-section of the pons on the left side shows a 0.5cm area of apparent hemorrhage. There are no skull fractures. The atlanto-occipital joint is stable.

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 thyroid is symmetric and red-brown, without cystic or nodular change. 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.

BODY CAVITIES: Contusion of the sternum and rib fractures have been described. Otherwise, the ribs, sternum, and vertebral bodies are visibly and palpably intact. No excess fluid is in the pleural, pericardial or peritoneal cavities. The organs occupy their usual anatomic positions.

RESPIRATORY SYSTEM: The right and left lungs are markedly edematous and weigh 1100 and 1120 gm, respectively. The external surfaces are smooth and deep red-purple with marked anthracotic pigment deposition on the pleura and in the parenchyma. The pulmonary parenchyma is diffusely congested and edematous and displays emphysematous changes at the upper lobes. No mass lesions or areas of consolidation are present.

CARDIOVASCULAR SYSTEM: The enlarged 710 gm 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 60% stenosis of the left main coronary artery; 95% multi-focal stenosis of the left anterior descending coronary artery and 95% stenosis of the right coronary artery. The myocardium is homogenous, red-brown, and firm. The valve leaflets are thin and mobile. The walls of the left and right ventricles are 2.5 and 1.0 cm thick, respectively. The endocardium is smooth and glistening. A 2 cm area of apparent fibrosis on the postero-lateral left ventricle is grossly consistent with remote myocardial infarction. The aorta shows marked erosive atherosclerosis along the entire length. The renal and mesenteric vessels are calcific with marked atherosclerosis.

LIVER & BILIARY SYSTEM: The 1970 gm liver has an intact, smooth capsule and a sharp anterior border. The parenchyma is tan-brown and congested, with the usual lobular architecture. No mass lesions or other abnormalities are seen. The gallbladder contains 25 ml of green-black bile and no stones. The mucosal surface is green and velvety. The extrahepatic biliary tree is patent.

SPLEEN: The 190 gm spleen has a smooth, intact, red-purple capsule. The parenchyma is maroon and congested, with distinct Malpighian corpuscles.

PANCREAS: The pancreas is mildly autolytic but otherwise firm and yellow-tan, with the usual lobular architecture. No mass lesions or other abnormalities are seen.

ADRENALS: The right and left adrenal glands are symmetric, with yellow cortices and grey medullae. No masses or areas of hemorrhage are identified.

GENITOURINARY SYSTEM: The right and left kidneys are reduced in size and weigh 90 and 80 gm, respectively. The external surfaces are coarsely granular. The cut surfaces are red-tan and the corticomedullary junctions are poorly differentiated. The pelves are unremarkable and the ureters are normal in course and caliber. White bladder mucosa overlies an intact bladder wall. The bladder is empty. The prostate is normal in size, with lobular, yellow-tan parenchyma. The seminal vesicles are unremarkable. The testes are free of mass lesions, contusions, or other abnormalities.

GASTROINTESTINAL TRACT: The esophagus is intact and lined by smooth, gray-white mucosa. The stomach contains approximately 350 ml of brown fluid. The gastric wall is intact. The entire small and large intestines are examined along their entire length and the mucosa is unremarkable. The appendix is present.

MUSCULOSKELETAL: No evidence of chronic disease; incision of the soft tissues of the back, buttocks, thighs, legs and wrists show no evidence of injury.

MICROSCOPIC EXAMINATION

Selected portions of organs are retained in formalin and the following histologic slides are made:

- #1, #2, and #4: Histologic sections of the coronary arteries confirm the gross descriptions
- #3 and #5: Left Ventricle: multifocal fibrosis
- #6. Cardiac septum: multifocal fibrosis
Right Ventricle: unremarkable
- #7 and #8: Lung: bronchopneumonia; pulmonary edema; emphysematous change
- #9: Liver: no pathologic diagnosis
- #10: Kidney: hyaline arteriosclerosis; diffuse fibrinoid necrosis of arterioles and hyperplastic arteriolitis (onion-skin change); tubular atrophy, interstitial fibrosis and chronic inflammation; focal glomerular fibrosis
- #11: Pons: arteriovenous malformation
Medulla: no pathologic diagnosis
- #12: Cortex, brain: no pathologic diagnosis
- #13: Aorta; marked calcific erosive atherosclerosis confirming the gross observations
- #14: Left Ventricle (posterolateral): remote myocardial infarction

ADDITIONAL PROCEDURES

- Documentary photographs are taken by the OAFME Photographer
- Identifying marks include a scars on the posterior right leg (calf)
- Specimens retained for toxicological testing and/or DNA identification are: vitreous fluid, blood, urine, spleen, liver, kidney, lung, brain, bile, gastric contents, psoas muscle and adipose tissue
- The dissected organs are forwarded with the body

OPINION

Based on these autopsy findings and the investigative information available to me, the cause of death of Iraqi detainee (b)(6) is severe three vessel atherosclerotic cardiovascular disease. The markedly enlarged heart shows histologic evidence of previous myocardial infarction (heart attack) and left ventricular hypertrophy. The left ventricle of the heart and the kidneys show both gross and microscopic changes consistent with long standing hypertension (high blood pressure). An incidental arteriovenous malformation of the brain (likely congenital), located in the pons, had no bearing on the cause of death. Toxicology examination is positive for acetaminophen and lidocaine, medications utilized in hospitalized care.

The manner of death is natural.

(b)(6)

Armed Forces Medical Examiner System

(b)(6)

CERTIFICATE OF DEATH (OVERSEAS) Acte de décès (D'Outre-Mer)			
NAME OF DECEASED (Last, First, Middle) Nom du décédé (Nom et prénoms) BTB Mutlib, Ali Hussein,		GRADE Grade	BRANCH OF SERVICE Arme Civilian
ORGANIZATION Organisation		NATION (e.g. United States) Pays Iraq	SOCIAL SECURITY NUMBER Numéro de l'Assurance Social (b)(6)
DATE OF BIRTH Date de naissance 1 January 1946		SEX - Sexe <input checked="" type="checkbox"/> MALE <input type="checkbox"/> FEMALE	
RACE Race	MARITAL STATUS État Civil		RELIGION Culte
<input checked="" type="checkbox"/> CAUCASOID Caucasique	<input type="checkbox"/> SINGLE Célibataire	<input type="checkbox"/> DIVORCED Divorcé	<input type="checkbox"/> PROTESTANT Protestant
<input type="checkbox"/> NEGROID Négride	<input type="checkbox"/> MARRIED Marié	<input type="checkbox"/> SEPARATED Séparé	<input checked="" type="checkbox"/> CATHOLIC Catholique
<input type="checkbox"/> OTHER (Specify) Autre (Spécifier)	<input type="checkbox"/> WIDOWED Veuf		<input type="checkbox"/> JEWISH Juif
NAME OF NEXT OF KIN Nom du plus proche parent		RELATIONSHIP TO DECEASED Parenté du décédé avec le sus	
STREET ADDRESS Domicile à (Rue)		CITY OR TOWN OR STATE (Include ZIP Code) Ville (Code postal compris)	
MEDICAL STATEMENT Déclaration médicale			
CAUSE OF DEATH (Enter only one cause per line) Cause du décès (N'indiquer qu'une cause par ligne)			INTERVAL BETWEEN ONSET AND DEATH Intervalle entre l'attaque et le décès
DISEASE OR CONDITION DIRECTLY LEADING TO DEATH ¹ Maladie ou condition directement responsable de la mort.		Arteriosclerotic Cardiovascular Disease	
ANTECEDENT CAUSES Symptômes précurseurs de la mort.	MORBID CONDITION, IF ANY, LEADING TO PRIMARY CAUSE Condition morbide, s'il y a lieu, menant à la cause primaire		
	UNDERLYING CAUSE, IF ANY, GIVING RISE TO PRIMARY CAUSE Condition morbide, s'il y a lieu, menant à la cause primaire		
OTHER SIGNIFICANT CONDITIONS ² Autres conditions significatives ²		hypertension, arteriolonephrosclerosis	
MODE OF DEATH Condition de décès	AUTOPSY PERFORMED Autopsie effectuée <input checked="" type="checkbox"/> YES Oui <input type="checkbox"/> NO Non	CIRCUMSTANCES SURROUNDING DEATH DUE TO EXTERNAL CAUSES Circonstances de la mort suscitées par des causes extérieures	
<input checked="" type="checkbox"/> NATURAL Mort naturelle	MAJOR FINDINGS OF AUTOPSY Conclusions principales de l'autopsie		
<input type="checkbox"/> ACCIDENT Mort accidentelle			
<input type="checkbox"/> SUICIDE Suicide	NAME OF PATHOLOGIST Nom du pathologiste (b)(6)		
<input type="checkbox"/> HOMICIDE Homicide	SIGNATURE (b)(6)	DATE Date 11 December 2006	AVIATION ACCIDENT Accident à Avion <input type="checkbox"/> YES Oui <input checked="" type="checkbox"/> NO Non
DATE OF DEATH (day, month, year) Date de décès (le jour, le mois, l'année) (b)(6) 2006	PLACE OF DEATH Lieu de décès Iraq		
I HAVE VIEWED THE REMAINS OF THE DECEASED AND DEATH OCCURRED AT THE TIME INDICATED AND FROM THE CAUSES AS STATED ABOVE. J'ai examiné les restes mortels du dé funt et je conclus que le décès est survenu à l'heure indiquée et à la suite des causes énumérées ci-dessus.			
NAME OF MEDICAL OFFICER Nom du médecin militaire ou du médecin sanitaire (b)(6)		TITLE OR DEGREE Titre ou diplôme Medical Examiner	
GRADE Grade (b)(6)	INSTALLATION OR ADDRESS Installation ou adresse Dover AFB, Dover DE		
DATE Date 3/21/2007	SIGNATURE (b)(6)		
¹ State disease, injury or complication which caused death, but not conditions contributing to the death, but not related to the disease or condition causing death. ² State conditions contributing to the death, but not related to the disease or condition causing death. ¹ Préciser la nature de la maladie, de la blessure ou de la complication qui a contribué à la mort, mais non la manière de mourir, telle qu'un arrêt du coeur, etc. ² Préciser la condition qui a contribué à la mort, mais n'avant aucun rapport avec la maladie ou la condition qui a provoqué la mort.			

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REPLACES DA FORM 3665, 1 JAN 72 AND DA FORM 3665-R(PAS), 28 SEP 76, WHICH ARE OBSOLETE.

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