



ARMED FORCES INSTITUTE OF PATHOLOGY
Office of the Armed Forces Medical Examiner
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Rockville, MD 20850
1-301-319-0000



FINAL AUTOPSY EXAMINATION REPORT

Name: (BTB) AL-ZUBAYDI, Muhammed Hamza Autopsy No.: (b)(6)
ISN: (b)(6) AFIP No.: (b)(6)
Date of Birth: (BTB) (b)(6) 1938 Rank: Civilian Detainee
Date of Death: (b)(6) 2005 Place of Death: Abu Ghraib, Iraq
Date/Time of Autopsy: 09 DEC 2005 @ 1200 Place of Autopsy: Port Mortuary
Date of Report: 23 JUN 2006 Dover AFB, DE

Circumstances of Death: This 67-year-old Iraqi civilian detainee was admitted to the hospital on 20 NOV 2005 with chest pain and in respiratory distress. He was by report in heart failure, and on (b)(6) 2005 suffered a cardiac arrest. Advanced Cardiac Life Support was provided to no avail.

Authorization for Autopsy: Office of the Armed Forces Medical Examiner, IAW 10 USC 1471.

Identification: Presumptive identification is established by comparison of antemortem records and identification bands. A complete postmortem fingerprint examination was conducted and can be used to establish positive identification should exemplars become available.

CAUSE OF DEATH: HYPERTENSIVE ATHEROSCLEROTIC
CARDIOVASCULAR DISEASE

MANNER OF DEATH: NATURAL

FINAL AUTOPSY DIAGNOSES

- I. Hypertensive Atherosclerotic Cardiovascular Disease**
- A. Cardiomegaly (heart weight 560-grams; 358-grams to 438-grams expected for a body weight of 199-pounds) with biventricular dilated hypertrophy
 - B. Remote coronary artery bypass surgery with patent mammary artery graft to mid left anterior descending coronary artery
 - C. Severe aortic atherosclerosis with focally heavy calcification and ulceration
 - D. Severe coronary atherosclerosis with calcification, three vessel disease
 - E. Healed transmural infarction, posterior and septal left ventricle
 - F. Tricuspid regurgitation
 - G. Renal pitting and petechiae with arteriolosclerosis bilaterally
- II. Other Natural Disease**
- A. Congestion of the lungs bilaterally (right lung weight 1040-grams, left lung weight 600-grams)
 - B. Bilateral pleural adhesions
 - C. Bilateral pleural effusions (right 400-milliliters, left 525-milliliters)
 - D. Microscopic evidence of pulmonary hypertension, including thickened pulmonary vasculature and interstitial fibrosis
 - E. Diffuse alveolar damage
 - F. Enlarged prostate gland with associated muscular hypertrophy of the bladder
 - G. Incidental nephrogenic rest
 - H. Passive central congestion of the liver with associated mild portal inflammation
 - I. Right adrenal myelolipoma
 - J. Smooth muscle tumor of uncertain malignant potential of the stomach
- III. Other findings:**
- A. No internal or external evidence of recent trauma to head, trunk or extremities identified by complete autopsy and total body x-ray studies
 - B. No injuries of the neck identified (layer-by layer dissection of the neck performed)
- IV. Early Changes of Decomposition**
- V. Evidence of Medical Therapy**
- A. Properly located endotracheal tube
 - B. Left nasogastric tube is in place
 - C. Triple-lumen balloon-tip catheter is in the left jugular vein
 - D. Right radial arterial line
 - E. Needle-stick marks are in the antecubital fosse bilaterally and in the right neck
 - F. Defibrillator abrasion is on the anterior right torso
- IV. Toxicology**
- A. The blood and vitreous fluid are tested for ethanol and none is found

- B. The blood is tested for carbon monoxide and the level is less than 1%
- C. The blood is tested for cyanide and none is found
- D. The blood is screened for drugs of abuse and none are found

EXTERNAL EXAMINATION

The body is that of a well-developed, well-nourished appearing, 69 ½-inches, 199-pound obese white male whose appearance is consistent with the reported age of 67 years. Lividity is posterior and fixed. Rigor is equal in all extremities, and the temperature of the body is that of the refrigeration unit.

The scalp is covered with short gray hair, in a male-pattern baldness distribution. The irides are hazel, and the pupils are round and equal in diameter. There are no conjunctival petechiae. The external auditory canals are patent and clear. The ears are unremarkable. The nares are patent and the lips are atraumatic. The nose and maxillae are palpably stable. The teeth appear natural.

The neck is straight, and the trachea is midline and mobile. The chest is symmetric. There is a 7 ½-inch midline sternotomy scar. The abdomen is flat. There is a 13-inch surgical scar in the left inguinal region. 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. Generalized edema and focal ecchymoses that are associated with medical therapy are present. Early changes of decomposition are present and evidenced by skin slippage on the lower back, posterior right arm and the scalp on the back of the head.

CLOTHING AND PERSONAL EFFECTS

The body is received nude, and no personal effects accompany the remains.

MEDICAL INTERVENTION

- G. There is a properly located endotracheal tube
- H. A left nasogastric tube is in place
- I. A triple-lumen balloon-tip catheter is in the left jugular vein
- J. There is a right radial arterial line
- K. Needle-stick marks are in the antecubital fossa bilaterally and in the right neck
- L. A defibrillator abrasion is on the anterior right torso

RADIOGRAPHS

A complete set of postmortem radiographs is obtained and demonstrates the following:

- No skeletal trauma is identified

- No metallic foreign bodies are identified

EVIDENCE OF INJURY

There is no evidence of recent trauma.

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 1,340-gram 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, brainstem, cerebellum, and arterial systems are free of injury or other abnormalities. 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, as demonstrated by layer-wise dissection. The thyroid cartilage and hyoid bone are intact. The larynx is lined by intact white mucosa. The thyroid gland is symmetric and red-brown, without cystic or nodular change. The tongue is free of bite marks, hemorrhage, or other injuries.

BODY CAVITIES:

The ribs, sternum, and vertebral bodies are visibly and palpably intact. No excess fluid is in the pericardial or peritoneal cavities. The right pleural cavity contains 400-milliliters of serosanguinous fluid and the left pleural cavity contains 525-milliliters of serosanguinous fluid. There are pleural adhesions bilaterally. The pericardium is intact and is tightly adhered to the heart. The organs occupy their usual anatomic positions.

RESPIRATORY SYSTEM:

The right and left lungs weigh 1,040 and 600-grams, respectively. The external surfaces are roughened and deep red-purple. The pulmonary parenchyma is diffusely congested and edematous. The lower lobe of the left lung is consolidated. No mass lesions are identified in either lung.

CARDIOVASCULAR SYSTEM:

The 730-gram heart is contained in an intact pericardial sac. There is evidence of remote cardiac surgery, and the heart is submitted for Cardiovascular Pathology consultation (Addendum 1).

The aorta gives rise to three intact and patent arch vessels. Severe atherosclerosis with heavy calcification and ulceration is present along the entire length of the aorta. Atherosclerosis is also present in the renal and mesenteric vessels.

LIVER & BILIARY SYSTEM:

The 2.250-gram 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 a minute amount of green-black bile and no stones. The mucosal surface is green and velvety. The extrahepatic biliary tree is patent.

SPLEEN:

The 210-gram spleen has a smooth, intact, red-purple capsule. The parenchyma is maroon and congested, with distinct Malpighian corpuscles.

PANCREAS:

The pancreas is firm and yellow-tan, with the usual lobular architecture. No mass lesions or other abnormalities are seen.

ADRENALS:

The left adrenal gland has a bright yellow cortices and grey medullae. The right adrenal gland is enlarged (2.0 x 2.0-centimeters), and is yellow and had yellow cut surfaces. No areas of hemorrhage are identified.

GENITOURINARY SYSTEM:

The right and left kidneys weigh 220 and 220-grams, respectively. The external surfaces are intact and pitted with scattered petechiae bilaterally. The cut surfaces are red-tan and congested, with uniformly thin cortices and sharp corticomedullary junctions. The pelves are unremarkable and the ureters are normal in course and caliber. White bladder mucosa that is focally hemorrhagic overlies an intact bladder wall. The bladder contains approximately 10-milliliters of yellow urine. The prostate is enlarged in size, with nodular, 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, grey-white mucosa. The stomach contains approximately 10-milliliters of tan fluid. The gastric wall is intact, and a 1.0 x 1.0 x 1.0-centimeter mass arises from the stomach wall. The duodenum, loops of small bowel and colon are unremarkable. The appendix is absent.

MICROSCOPIC EXAMINATION

Cardiovascular System: See the Cardiovascular Pathology consultation (Addendum 1) for complete details.

Respiratory System: Sections of the lung demonstrate evidence of pulmonary hypertension, including thickened pulmonary vasculature (mild to moderated medial hypertrophy) and interstitial fibrosis. Anthracotic pigment and hemosiderin are present in

Genitourinary System: There is marked arteriosclerosis with focal glomerulosclerosis in both kidneys. An incidental nephrogenic rest is noted.

Hepatobiliary System: Passive central congestion of the liver and associated mild portal inflammation is present.

Endocrine System: Myelolipoma of the right adrenal.

Gastrointestinal System: Smooth muscle tumor of uncertain malignant potential of the stomach.

Spleen: Parenchymal congestion, otherwise unremarkable.

ADDITIONAL PROCEDURES/REMARKS

- Documentary photographs are taken by AFMES photographers
- Specimens retained for toxicological testing and/or DNA identification are: vitreous fluid, heart blood, urine, gastric fluid, bile, spleen, liver, brain, lung, kidney, adipose tissue and psoas muscle
- The dissected organs are forwarded with the body and the body is sutured closed without embalming
- The following identifying body marks are present: Midline sternotomy incision (well-healed, 7 1/2-inches), left lateral abdomen/groin incision (well-healed, 13-inches)

OPINION

This 67-year-old white male, (BTB) (b)(6) died as a result of hypertensive atherosclerotic cardiovascular disease. Cardiomegaly, severe three-vessel coronary artery disease, a history of bypass-grafting surgery, aortic atherosclerosis and a healed transmural myocardial infarction are all components of this diagnosis. Also, microscopic sections of the kidneys show arteriolosclerosis in the kidneys that is a histological manifestation of systemic hypertension. Pulmonary interstitial fibrosis and the microscopic evidence of pulmonary hypertension are directly related. Incidental findings at autopsy of the right adrenal myelolipoma and smooth muscle tumor of the stomach did not contribute to the cause of death. Toxicological testing for ethanol, drugs of abuse, carbon monoxide and cyanide was negative. The manner of death is natural.

(b)(6)

(b)(6) Medical Examiner

(b)(6)

(b)(6) Medical Examiner

(b)(6) *11 July 06*

ADDENDUM 1

Cardiovascular Pathology Consultation

FINAL DIAGNOSIS

DIAGNOSIS: (b)(6)

1. Severe coronary atherosclerosis with calcification, three vessel disease
2. Patent mammary artery graft to mid left anterior descending artery
3. Healed transmural infarction, posterior and septal left ventricle
4. Cardiomegaly with biventricular hypertrophy
5. Tricuspid regurgitation

History: 67 year old male Iraqi detainee admitted to hospital on 11/20/05 with chest pain and respiratory distress; subject developed heart failure and suffered a cardiac arrest on (b)(6) 05 and could not be resuscitated

Heart: 560 grams after removal of adherent pericardium and mediastinal soft tissues: diffuse fibrous pericardial adhesions; oversewn right atrial appendage; closed foramen ovale; dilated right atrium and right ventricle; left ventricular hypertrophy: left ventricular cavity diameter 35 mm, left ventricular free wall thickness 16 mm, ventricular septum thickness 18 mm, right ventricle thickness 6 mm; tricuspid regurgitation: thickened and redundant tricuspid valve leaflets, with dilated right atrium and right ventricle, and endocardial thickening under septal leaflet of valve; mild thickening of mitral valve leaflets along lines of closure; other valves unremarkable; endocardial thickening in left ventricular septum overlying healed transmural infarction that extends to anterior and posterior walls toward the apex; histologic sections show biventricular myocyte hypertrophy with subendocardial and perivascular interstitial fibrosis and patchy replacement fibrosis: transmural replacement fibrosis, posterior and septal left ventricle; basophilic degeneration of myocytes

Coronary arteries: Normal ostia; right dominance; severe calcific coronary atherosclerosis:

Left main coronary artery: 30% luminal narrowing with nodular calcification

Left anterior descending artery (LAD): 50% narrowing of proximal LAD and 90% narrowing of mid LAD by fibrocalcific plaque; mammary artery graft to mid LAD, patent anastomosis with mild intimal thickening and 30% luminal narrowing in run-off vessel; 80% narrowing of first diagonal artery by fibrocalcific plaque

Left circumflex artery (LCA): 60% narrowing of proximal LCA with nodular calcification and 70% narrowing of mid LCA by fibrocalcific plaque

Right coronary artery (RCA): 80% narrowing of proximal and distal RCA, and 75% narrowing of mid RCA by fibrocalcific plaque

(b)(6)

Staff Pathologist

Blocks made: 18 (5 heart, 13 coronary arteries)
Slides made: 31 (18 H&E, 13 Movat)

CERTIFICATE OF DEATH (OVERSEAS) Acte de décès (D'Outre-Mer)			
NAME OF DECEASED (Last, First, Middle) Nom du décédé (Nom et prénoms) BTB Al-Zubaydi, Muhammed, Hamza		GRADE Grade	BRANCH OF SERVICE Arme Civilian
ORGANIZATION Organisation		NATION (e.g. United States) Pays Iraq	DATE OF BIRTH Date de naissance (b)(6) 1938
		SOCIAL SECURITY NUMBER Numéro de l'Assurance Social (b)(6)	
		SEX Sexe <input checked="" type="checkbox"/> MALE <input type="checkbox"/> FEMALE	
RACE Race		MARITAL STATUS État Civil	
CAUCASOID Caucasique		SINGLE Célibataire	
NEGRÖID Négre		MARRIED Marié	
<input checked="" type="checkbox"/> OTHER (Specify) Autre (Spécifier)		DIVORCED Divorcé	
		SEPARATED Séparé	
		PROTESTANT Protestant	
		CATHOLIC Catholique	
		JEWISH Juif	
		OTHER (Specify) Autre (Spécifier) X	
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 Maladie ou condition directement responsable de la mort. Hypertensive Atherosclerotic Cardiovascular Disease			Years
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 Autres conditions significatives			
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		
ACCIDENT Mort accidentelle			
SUICIDE Suicide	NAME OF PATHOLOGIST Nom du pathologiste (b)(6)		
HOMICIDE Homicide	SIGNATURE Signature	DATE Date 9 December 2005	AVIATION ACCIDENT Accident à Avion <input type="checkbox"/> YES Oui <input checked="" type="checkbox"/> NO Non
DATE OF DEATH Date de décès (day, month, year) (le jour, le mois, l'année) (b)(6) 2005	PLACE OF DEATH Lieu de décès		
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 défunt 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	SIGNATURE Signature		

¹ State disease, injury or complication which caused death, but not mode of dying such as heart failure, etc.

² State conditions contributing to the death, but not related to the disease or condition causing death.

³ 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.

⁴ Préciser la condition qui a contribué à la mort, mais n'ayant aucun rapport avec la maladie ou à la condition qui a provoqué la mort.

REPLACES DA FORM 3666, 1 JAN 72 AND DA FORM 3666-R(PAS), 28 SEP 78, WHICH ARE OBSOLETE.

DD FORM 1 APR 77 2064

MEDCOM 0225

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

DISPOSITION OF REMAINS			
NAME OF MORTICIAN PREPARING REMAINS	GRADE	LICENSE NUMBER AND STATE	OTHER
INSTALLATION OR ADDRESS	DATE	SIGNATURE	
NAME OF CEMETERY OR CREMATORY	LOCATION OF CEMETERY OR CREMATORY		
TYPE OF DISPOSTION		DATE OF DISPOSTION	
REGISTRATION OF VITAL STATISTICS			
REGISTRY <i>(Town and Country)</i>	DATE REGISTERED	FILE NUMBER	
		STATE	OTHER
NAME OF FUNERAL DIRECTOR	ADDRESS		
SIGNATURE OF AUTHORIZED INDIVIDUAL			

DD FORM 2064, APR 1977 (BACK)

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