



ARMED FORCES INSTITUTE OF PATHOLOGY
Office of the Armed Forces Medical Examiner
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AUTOPSY EXAMINATION REPORT

Name: BTB Sardah, Muthor Nassar	Autopsy No.: (b)(6)
ISN: (b)(6)	AFIP No.: (b)(6)
Date of Birth: BTB (b)(6) 1932	Rank: Civilian
Date of Death: (b)(6) 2005	Place of Death: Iraq
Date/Time of Autopsy: 31 Oct 2005 @ 1200 hrs	Place of Autopsy: Port Mortuary, Dover AFB, DE
Date of Report: 03 Jan 2006	

Circumstances of Death: This elderly civilian detainee was, as reported, admitted to the SASH ICW on 10 Oct 2005 for dehydration, pneumonia and respiratory distress. On (b)(6) (b)(6) 2005 he went into cardiac arrest and died despite Advanced Cardiac Life Support.

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

Identification: Presumptive identification by accompanying paperwork and wrist band photographic identification

CAUSE OF DEATH: **Atherosclerotic Coronary Vascular Disease and
Metastatic Large Cell Carcinoma of the Lung**

MANNER OF DEATH: **Natural**

FINAL AUTOPSY DIAGNOSES:

- I. **Pulmonary System:**
 - A. **Right Lung:**
 1. Poorly differentiated adenocarcinoma, mixed subtype (Stage IV)
 2. Irregular white-gray tumor mass, 9 x 6 x 6-centimeter, in the right lower lung lobe that extends into the hilum of the right lung
 3. Peribronchiolar, perihilar and mediastinal lymph nodes are involved
 - B. **Left Lung:** Metastatic poorly differentiated adenocarcinoma, mixed subtype (numerous up to 1-centimeter irregular tan tumor nodules)
 - C. **Respiratory bronchiolitis**
 - D. **Emphysema**
 - E. **Focal acute bronchopneumonia**
 - F. **Pulmonary congestion (lung weights: left 910-grams; right 980-grams)**
 - G. **Bilateral serous pleural effusions (200 ml bilaterally)**
 - H. **Diaphragm: Fibrous pleural plaques**
- II. **Reticuloendothelial System: Spleen, fibrous plaques (numerous small (up to 2mm) white plaques on the capsule of the spleen)**
- III. **Cardiovascular System:**
 - A. **Atherosclerotic Coronary Vascular Disease:**
 1. 60% stenosis of the left anterior descending coronary artery by atherosclerotic plaque
 2. 80% stenosis of the left circumflex coronary artery by atherosclerotic plaque
 3. 50% stenosis of the right coronary artery by atherosclerotic plaque
 - B. **Cardiomegaly: Heart weight 390-grams (predicted normal heart weight for a male with a body weight of 110-pounds is 276-grams with a lower 95% confidence limit of 209-grams and an upper 95% confidence limit of 364-grams)**
 - C. **Concentric hypertrophy of the left ventricle of the heart (septum 2.2-centimeters, left ventricle free wall 1.9-centimeters)**
 - D. **Moderate Atherosclerosis of the Aorta**
- IV. **Hepatobilliary System:**
 - A. **Congested liver (Liver weight 1280-grams)**

- V. **Skin:**
 - A. **Sacral erosion, 2 ½-inch, with associated 1-inch pressure contusions on the left and right buttocks**
 - B. **Pedunculated nevus on the skin of the left axilla**
 - C. **Erosion on the right elbow, 1/2-inch**
 - D. **Erythematous patch on the right forearm**

- VI. **Erosion of the oral mucosa**

- VII. **Evidence of Injury:**
 - A. **Abrasion on the right hip, 1/8-inch**
 - B. **Contusion on the left forearm, 3/4-inch**
 - C. **Abrasion on the center of the upper back, 1/8-inch**
 - D. **Contusion on the left forearm, 1/8-inch**

- VIII. **Post-mortem changes:**
 - A. **Lividity is fixed on the posterior surface of the body except in areas exposed to pressure**
 - B. **Rigor has passed**
 - C. **Mild decomposition of the internal organs**

- IX. **Post-mortem radiographs reveal no significant skeletal trauma**

- X. **Toxicology (AFIP):**
 - A. **CARBON MONOXIDE: The Carboxyhemoglobin saturation in the blood is less than 1%**
 - B. **CYANIDE: There is no cyanide detected in the blood**
 - C. **VOLATILES: No ethanol is detected in the blood and vitreous fluid**
 - D. **DRUGS: There are no screened drugs of abuse or medications detected in the liver**

EXTERNAL EXAMINATION

The body is that of a thin 64-inches tall, 110-pounds elderly male. Lividity is fixed on the posterior surface of the body. Rigor has passed.

The scalp is covered with short gray hair in a normal distribution. The irides are hazel, and the pupils are round and equal in diameter. The external auditory canals and ears are unremarkable. The nares are patent and the lips are atraumatic. The nose and maxillae are palpably stable. The deceased has no upper teeth. The lower teeth are natural. There is an erosion on the palate.

The neck is straight, and the trachea is midline and mobile. The chest is symmetric. The abdomen is flat. The genitalia are those of a normal adult 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.

There is a sacral erosion, 2 ½-inches, with associated 1-inch pressure contusions on the left and right buttocks, a ½-inch pedunculated nevus on the skin of the left axilla, a ½-inch erosion on the right elbow and an erythematous patch on the right forearm.

CLOTHING AND PERSONAL EFFECTS

The following clothing items and personal effects are present on the body at the time of autopsy:

- Blue shorts

MEDICAL INTERVENTION

- Orogastric tube (properly placed)
- Endotracheal tube (properly placed)
- 11 EKG leads on the torso, shoulders and ankles
- Automatic defibrillator pads on the right side of the chest (with underlying 4 x 4-inch superficial burn) and on the left side of the chest
- Triple lumen catheter in the right subclavian vein
- Intravenous access in the left antecubital fossa and on the right forearm
- Needle puncture sites with surrounding hematomas on the right arm, right hand and left arm

RADIOGRAPHS

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

- No blunt force or penetrating skeletal injuries
- No metallic foreign objects are identified

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.

- abrasion on the right hip. 1/8-inch
- contusion on the left forearm. 3/4-inch
- abrasion on the center of the upper back. 1/8-inch
- Contusion on the left forearm. 1/8-inch

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 1320-grams brain, which has unremarkable gyri and sulci. Coronal sections demonstrate sharp demarcation between white and gray 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. The thyroid cartilage and hyoid 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.

BODY CAVITIES:

The ribs, sternum, and vertebral bodies are visibly and palpably intact. Both chest cavities contain 200-milliliters of serous fluid. The organs occupy their usual anatomic positions.

RESPIRATORY SYSTEM:

The right and left lungs weigh 980 and 910-grams, respectively. The external surfaces are smooth and deep red-purple. The pulmonary parenchyma is diffusely congested and edematous. There is a 9 x 6 x 6-inch irregular white, gray and black mass in the lower lobe of the right lung that extends into the hilum. Multiple irregular tan tumor nodules up to 1-centimeters in greatest dimension are in both lobes of the left lung. The mediastinal lymph nodes are enlarged (up to 1-inch) and their cut surfaces are white-gray, soft, and heterogenous. Contralateral mediastinal and hilar lymph nodes are involved. Both hemidiaphragms are involved by 1-centimeter white plaques.

CARDIOVASCULAR SYSTEM:

The 390-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. Cross sections of the vessels show 60% stenosis of the left anterior descending, 80% stenosis of the left circumflex and 50% stenosis of the right coronary artery by atherosclerotic plaque. The myocardium is homogenous, red-brown, and firm. The valve leaflets are thin and mobile. There is relatively concentric hypertrophy of the left ventricle and the walls of the left and right ventricles and septum are 1.9, 0.8 and 2.2-centimeters thick, respectively. The endocardium is smooth and glistening. The aorta gives rise to three intact and patent arch vessels. There is moderate atherosclerosis of the aorta. The renal and mesenteric vessels are unremarkable.

LIVER & BILIARY SYSTEM:

The 1280-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 150-gram spleen has a red-purple capsule with numerous (up to 2-millimeter) white plaques. 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 right and left adrenal glands are symmetric, with bright yellow cortices and gray medullae. No masses or areas of hemorrhage are identified.

GENITOURINARY SYSTEM:

The right and left kidneys each weigh 130-grams. The external surfaces are intact and smooth. The cut surfaces are red-tan and congested, with uniformly thick cortices and sharp corticomedullary junctions. The pelves are unremarkable and the ureters are normal in course and caliber. White bladder mucosa overlies an intact bladder wall. The bladder contains approximately 50-milliliters of dark yellow urine. 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, grey-white mucosa. The stomach contains approximately 20-milliliters of brown fluid. The gastric wall is intact. The duodenum, loops of small bowel, and colon are unremarkable. The appendix is present.

ADDITIONAL PROCEDURES

1. Documentary photographs are taken by the OAFME.
2. Specimens retained for toxicologic testing and/or DNA identification are: Lung, blood, spleen, psoas muscle, bile, urine, vitreous, brain, kidney, liver, adipose and gastric fluid
3. The dissected organs are forwarded with body.
4. Identifying marks include: Scar on the right shoulder and (b)(6) tattoo (b)(6)
(b)(6)

MICROSCOPIC EXAMINATION

HEART:

Myocardium (Slides-H, I, J) – increased inter-myocyte fibrosis

Left Anterior Descending Coronary Artery (Slide-K)– 60% stenosis by calcified atherosclerotic plaque

Right Coronary Artery (Slide-N) – 50% stenosis by calcified atherosclerotic plaque

Left Circumflex Coronary Artery (Slides-M, L) – calcified atherosclerotic plaque

MEDIASTINAL LYMPH NODES:

(Slide-C) Lymph node with widespread areas of necrosis and malignant epithelial cells that have large pleomorphic nuclei, prominent nucleoli and abundant eosinophilic cytoplasm

LUNGS:

Right Lung – (Slides-B, G) Tumor mass consisting of malignant epithelial tumor cells that have large pleomorphic nuclei, prominent nucleoli and moderate to abundant eosinophilic cytoplasm, the overall pattern is a large cell adenocarcinoma with some bronchoalveolar features. There is multi-focal necrosis and inflammation

Left Lung – (Slides-D, E) Tumor masses consisting of malignant epithelial tumor cells that have large pleomorphic nuclei, prominent nucleoli and moderate to abundant eosinophilic cytoplasm

DIAPHRAGM:

(Slide-F) Dense fibrosis and scant mesothelial cells that have large nuclei, prominent nucleoli and moderate eosinophilic cytoplasm

SPLEEN:

(Slide-A) Dense fibrosis and scant mesothelial cells that have pleomorphic spindled nuclei, conspicuous nucleoli and moderate eosinophilic cytoplasm

PULMONARY PATHOLOGY CONSULTATION (AFIP):

The Pulmonary Pathology Department of the AFIP submitted the following report after reviewing the submitted material:

- Poorly differentiated adenocarcinoma, mixed subtype
- Acute bronchopneumonia
- Respiratory bronchiolitis and emphysema
- Fibrous pleural plaque

Sections of lung showing a poorly differentiated adenocarcinoma with lepidic, papillary, solid and acinar growth patterns. Pleural and capillary/lymphatic invasion are present. Metastatic tumor is identified in the left lung, peribronchiolar/perihilar and mediastinal lymph nodes. Emphysema and respiratory bronchiolitis are also present. RB is characterized by bronchiolocentric intraalveolar accumulations of macrophages containing dusty yellow-brown pigment, a finding typically associated with cigarette smoke. Focal acute bronchopneumonia is identified. On immunohistochemical studies, the tumor cells are immunoreactive for CK7, CK20 and TTF-1. Based on the light microscopic morphology we classify this tumor as poorly differentiated adenocarcinoma, mixed subtype. The immunophenotype is compatible with a lung primary. Sections of diaphragm and spleen show fibrous plaques. We noticed occasional atypical cells along the surface of the spleen and along the surface of the diaphragm plaque that we favor are mesothelial in origin (mesothelial hyperplasia). As there is metastatic disease in the left lung from what appears to be a right lung primary, the stage of this tumor is AJCC stage IV.

OPINION

This elderly Iraqi male died of atherosclerotic coronary vascular disease and metastatic large cell carcinoma of the lung. The toxicology screen is negative. The small abrasion on the right hip and upper back and the small contusion on the left forearm are minor and non-contributory to either the cause or manner of death. The manner of death is natural.

(b)(6)

(b)(6) Medical Examiner

(b)(6)

(b)(6) Medical Examiner

CERTIFICATE OF DEATH (OVERSEAS)

Acte de décès (D'Outre-Mer)

NAME OF DECEASED (Last, First, Middle) Nom du décédé (Nom et prénoms) BTB Sardah, Muthor, Nassar		GRADE Grade	BRANCH OF SERVICE Arme Civilian	SOCIAL SECURITY NUMBER Numéro de l'Assurance Social (b)(6)
ORGANIZATION Organisation		NATION (e.g. United States) Pays Iraq	DATE OF BIRTH Date de naissance (b)(6) 1932	SEX Sexe <input checked="" type="checkbox"/> MALE <input type="checkbox"/> FEMALE
RACE Race		MARITAL STATUS État Civil		RELIGION Culte
<input type="checkbox"/> CAUCASOID Caucasique	<input type="checkbox"/> SINGLE Célibataire	<input type="checkbox"/> DIVORCED Divorcé	<input type="checkbox"/> PROTESTANT Protestant	<input checked="" type="checkbox"/> OTHER (Specify) Autre (Spécifier)
<input type="checkbox"/> NEGROID Négride	<input type="checkbox"/> MARRIED Marié	<input type="checkbox"/> SEPARATED Séparé	<input type="checkbox"/> CATHOLIC Catholique	
<input checked="" 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		Pending
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		

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 Mode of Death: Pending Mode of Death: Pending
<input 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	DATE Date 31 October 2005	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) 2005	PLACE OF DEATH Lieu de décès Iraq
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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 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 21 NOV 2005	(b)(6)

¹ State disease, injury or complication which caused death, but not mode of dying such as heart failure, etc.
² State conditions contributory to the death, but not related to the disease or condition causing death.
Préciser la nature de la maladie, de la blessure ou de la complication qui a contribué à la mort, mais non le mode de mourir, telle qu'un arrêt du cœur, etc.
Préciser la condition qui a contribué à la mort, mais n'établir aucun rapport avec la maladie ou à la condition qui a entraîné la mort.

DD FORM 1 APR 77 2064 REPLACES DA FORM 3565, 1 JAN 72 AND DA FORM 3565-R(PAS), 26 SEP 75, WHICH ARE OBSOLETE.

MEDCOM 0246

(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 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			

DD FORM 2064, APR 1977 (BACK)

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