



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



AUTOPSY EXAMINATION REPORT

Name: BTB Muhammad Hamad, Bnayyan	Autopsy No.: (b)(6)
Internment Serial No. (b)(6)	AFIP No.: (b)(6)
Date of Birth: (b)(6) 1931	Rank: Detainee
Date of Death: (b)(6) 2006	Place of Death: Iraq
Date/Time of Autopsy: 04 DEC 2006 @ 1200 hrs	Place of Autopsy: Port Mortuary, Dover AFB, DE
Date of Report: 17 JAN 2007	

Circumstances of Death: This 75 year-old elderly male civilian detainee suffered a prolonged hospitalization due to pneumonia and eventual septic and cardiogenic shock which progressed to multi-organ system failure. The ethics committee of the Camp Cropper TIF Hospital determined that continuation of treatment was not warranted due to futility. Accordingly, cardiac support (vasopressors) was withdrawn and the detainee expired.

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

Identification: Presumptive identification based on accompanying paperwork

CAUSE OF DEATH: Acute and Organizing Diffuse Alveolar Damage

MANNER OF DEATH: Natural

FINAL AUTOPSY DIAGNOSIS

- I. Pulmonary System:**
 - A. Acute and Organizing Diffuse Alveolar Damage (Lung Weights – Right 1880-grams; Left 1750-grams)**
 - B. Silico-anthracotic Nodules**
 - C. Bilateral Pleural Adhesions**
 - D. Bilateral Serous Pleural Effusions (Left 100-milliliters; Right 100-milliliters)**
- II. Cardiovascular System:**
 - A. Heart Weight 460-grams**
 - B. Serous Pericardial Effusion (50-milliliters)**
 - C. Mild Atherosclerosis of the Aorta**
 - D. Chronic Inflammation of the Epicardium**
- III. Hepatobiliary System:**
 - A. Passive Congestion (Liver Weight 1950-grams)**
 - B. Adhesions Between the Liver and Both Hemidiaphragms**
 - C. Mild Portal Triaditis and Fibrosis**
- IV. Reticuloendothelial System:**
 - A. Congestion of the Spleen (Spleen Weight 250-grams)**
 - B. Adhesions Between the Spleen and Multiple Loops of Bowel**
- V. Gastrointestinal System: Abdominal Adhesions**
- VI. Genitourinary System:**
 - A. Simple Cortical Cysts of Both Kidneys**
 - B. Mild Chronic Pyelonephritis**
 - C. Benign Nephrosclerosis (hyaline arteriolosclerosis)**
- VII. Other Findings:**
 - A. Anasarca**
 - i. 250-milliliters of ascites**
 - B. Multiple Decubitus Ulcers:**
 - i. Right Forearm, ½-inch**
 - ii. Right Buttock (4), Ranging From ¼-inch to 1-inch in Greatest Dimension**
 - iii. Left Buttock (2), 2-inch and 2 ¼-inch**
 - iv. Left Posterior Thigh (2), ¼-inch and ½-inch**
 - v. Right Knee (2), 1-inch and 1 ½-inch**
 - vi. Left Knee, 1-inch**
 - vii. Right Leg, ½-inch**
 - viii. Right Lateral Malleolus, ½-inch**
 - ix. Left Lateral Malleolus, ½-inch**
 - C. Blister of the Right Heel**
 - D. Skin Tag: Right Shoulder**
 - E. Multiple Brown and White Macules on the Torso and Extremities**
 - F. Drying and Cracking of the Lips**
 - G. Drying and Cracking of the Plantar Surfaces of Both Feet**
- VIII. Evidence of Significant Injury: None**
- IX. Evidence of Medical Intervention:**

- A. Tracheostomy**
- B. EKG Leads on the Anterior Torso**
- C. Right Chest Tube**
- D. Percutaneous Endoscopic Gastrostomy**
- E. Stapled Vertical Incision of the Abdomen, 7-inches**
- F. Dressings:**
 - i. Buttocks (3)**
 - ii. Right Knee**
 - iii. Abdomen**
 - iv. Chest**
 - v. Neck**
- G. Foley Catheter**
- H. Arterial Line, Right Wrist**
- I. Intravenous Access, Right Subclavian**
- J. Multiple Needle Punctures:**
 - i. Left Subclavian (4)**
 - ii. Left Wrist (1)**
- X. 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. Skin slippage**
- XI. Toxicology (AFIP):**
 - A. CARBON MONOXIDE: The carboxyhemoglobin saturation in the blood is 1%**
 - B. CYANIDE: No cyanide is detected in the blood**
 - C. VOLATILES: No ethanol is detected in the blood and vitreous fluid**
 - D. DRUGS: No screened drugs of abuse or medications are detected in the blood**

EXTERNAL EXAMINATION

The body is that of a well-developed, well-nourished appearing 68 ½-inch tall, 198-pounds male whose appearance is consistent with the reported age of 75-years. There is generalized edema of the torso and extremities. Lividity is fixed on the posterior surface of the body except in areas exposed to pressure. Rigor has passed. The body is cold to the touch. The body is lying on blue hospital chucks.

There is a male pattern baldness hair distribution. The irides are brown, 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 teeth appear natural with excess wear. The dentition is poor. The face is edematous. The lips are dry and cracked.

The neck is straight, and the trachea is midline and mobile. The chest is symmetric. The abdomen is protuberant. There is a ½-inch round scar on the lower abdomen. The genitalia are those of an adult male. The penis and scrotum are edematous. The testes are descended and free of masses. Pubic hair is present in a normal distribution. The anus is unremarkable.

Multiple decubitus ulcers are observed on the: right forearm, ½-inch; right buttock (4), ranging from ¼-inch to 1-inch in greatest dimension; left buttock (2), 2-inch and 2 ¾-inch; left posterior thigh (2), ¼-inch and ½-inch; right knee (2), 1-inch and 1 ½-inch; left knee, 1-inch; right leg, ½-inch; right lateral malleolus, ½-inch; and left lateral malleolus, ½-inch. One of the decubitus ulcers on the left buttock extends into the underlying muscle. There is a blister on the right heel, a skin tag on the right shoulder and multiple tan and white macules on the extremities and torso.

The upper and lower extremities are symmetric. The plantar surfaces of both feet are dry and cracked. (b)(6)

CLOTHING AND PERSONAL EFFECTS

The following clothing items and personal effects are present on the body at the time of autopsy: The body is received unclad. There is a green personal effects bag tied to the left wrist. The contents of the bag are documented photographically. The bag contains foreign and United States currency, personal papers, two photos and an identification bracelet

MEDICAL INTERVENTION

The following medical interventions are present on the body at the time of autopsy:

- Tracheostomy
- EKG Leads on the Anterior Torso
- Right Chest Tube
- Percutaneous Endoscopic Gastrostomy
- Stapled Vertical Incision of the Abdomen, 7-inches

- Dressings:
 - Buttocks (3)
 - Right Knee
 - Abdomen
 - Chest
 - Neck
- Foley Catheter
- Arterial Line, Right Wrist
- Intravenous Access, Right Subclavian
- Multiple Needle Punctures:
 - Left Subclavian (4)
 - Left Wrist (1)

RADIOGRAPHS

A complete set of postmortem radiographs and computerized tomography scans are obtained and demonstrates the following:

- Consolidation of both lungs
- Pericardial effusion
- Contrast in the distal colon
- No blunt force or penetrating injuries are detected radiographically

EVIDENCE OF INJURY

There is no evidence of any significant injury.

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 1440-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. 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. There is 100-milliliters of serous fluid in both chest cavities, 50-milliliters of serous fluid in the pericardium and 250-milliliters of serous fluid in the peritoneum. The organs occupy their usual anatomic positions.

RESPIRATORY SYSTEM:

The right and left lungs weigh 1880 and 1750-grams, respectively. There are dense adhesions between both lungs and the pleura and both hemidiaphragms. The external surfaces are rough, irregular and tan-brown. The pulmonary parenchyma is diffusely congested, edematous and firm. There are multiple areas of tan consolidation present in both lungs.

CARDIOVASCULAR SYSTEM:

The 460-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 and right ventricles are 1.1 and 0.4-centimeters thick, respectively. The endocardium is smooth and glistening. The aorta gives rise to three intact and patent arch vessels. There is mild atherosclerosis consisting of fatty streaks in the aorta. The renal and mesenteric vessels are unremarkable.

LIVER & BILIARY SYSTEM:

The 1950-gram liver has an intact, smooth capsule and a sharp anterior border. The parenchyma is tan-brown and congested, with the usual lobular architecture. The cut surface has a "nutmeg" appearance. No mass lesions or other abnormalities are seen. The gallbladder contains a 20-milliliters of green-black bile and no stones. The mucosal surface is green and velvety. The extrahepatic biliary tree is patent. There are adhesions between the liver and both hemidiaphragms.

SPLEEN:

The 250-gram spleen has a smooth (in areas not involved by adhesions), intact, red-purple capsule. There are adhesions between the spleen and multiple loops of small bowel. 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 grey medullae. There is significant autolysis seen. No masses or areas of hemorrhage are identified.

GENITOURINARY SYSTEM:

The right and left kidneys each weigh 220-grams. The external surfaces are intact and granular. The cut surfaces are red-tan and congested, with uniformly thick cortices and sharp corticomedullary junctions. There are multiple smooth walled cortical cysts identified in both kidneys. The largest cyst measures 1 1/2-centimeters in diameter. The pelves are unremarkable and the ureters are normal in course and caliber. The bladder

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mucosa overlies an intact bladder wall and is focally hyperemic. The bladder contains approximately 5-milliliters of clear 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 is empty and there is very mild erythema of the mucosal surface. The gastric wall is intact. The duodenum, loops of small bowel, and colon are unremarkable. There are multiple adhesions between the small bowel, colon and spleen. The appendix is present.

PULMONARY PATHOLOGY CONSULTATION (AFIP)

08 JAN 2007

-Acute organizing diffuse alveolar damage

-Silico-anthracotic nodules

Lungs show mostly organizing diffuse alveolar damage with focal acute areas (hyaline membranes). As is typical of patients on a respirator, there is focal acute inflammation. No organisms are seen on GMS. Stains for CMV, adenovirus and herpes virus are negative.

MICROSCOPIC EXAMINATION

- Lung (Slides 1 through 5) See pulmonary pathology consultation.
- Kidney (Slide 6) There is a simple cortical cyst and mild chronic interstitial inflammation with occasional sclerotic glomeruli. A rare interstitial eosinophil is seen. Some of the tubules are distended and have atrophic epithelium and contain a pink granular material (mild "thyroidization"). There is a mild narrowing of the lumens of arterioles caused by thickening and hyalinization of their walls.
- Liver (Slide 7) There is congestion of the centrilobular sinusoids and peri-portal and portal chronic inflammation. Occasional acute inflammatory cells are seen. Mild fibrosis is seen.
- Spleen (Slide 8) The spleen is congested and otherwise unremarkable.
- Brain (Slide 9) There are no significant pathologic findings.
- Bladder/Prostate (Slide 10) There are no significant pathologic findings
- Heart (Slides 11 through 13) There are chronic inflammatory cells seen in the epicardial fat. Otherwise there are no significant pathologic findings.

ADDITIONAL PROCEDURES

1. Documentary photographs are taken by OAFME staff photographers.
2. Full body radiographs are obtained and demonstrate no significant blunt force or penetrating trauma.
3. Specimens retained for toxicology testing and/or DNA identification are: Blood, vitreous fluid, bile, urine, brain, lung, liver, spleen, kidney, adipose tissue and psoas muscle
4. The dissected organs are forwarded with the body.
5. Selected portions of organs are retained in formalin. Histologic slides are prepared on: Lung, kidney, liver, spleen, brain, bladder and heart.
6. Personal effects are released to the appropriate mortuary operations representatives.
7. Identifying marks include: A tattoo on (b)(6)
(b)(6)

OPINION

This 75 year-old male, BTB (b)(6) died of acute and organizing diffuse alveolar damage. The etiology of this condition is most likely the previously clinically diagnosed and treated pneumonia. Complications of these conditions included a clinical history of sepsis, shock and multi-organ system failure. Multiple decubitus ulcers were seen on external examination and are most likely due to prolonged hospitalization with a debilitating illness. The toxicology screen is negative for cyanide, ethanol, and screened drugs of abuse and medications. The carboxyhemoglobin saturation was not elevated. The manner of death is natural.

(b)(6)

(b)(6) Medical Examiner

(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 Muhammad, Bnayyan,		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 (b)(6) 1931	SEX Sexe <input checked="" type="checkbox"/> MALE <input type="checkbox"/> FEMALE
RACE Race		MARITAL STATUS État Civil	
CAUCASOID Caucasique		SINGLE Célibataire	
NEGROID Négride		MARRIED Marié	
<input checked="" type="checkbox"/> OTHER (Specify) Autre (Spécifier)		WIDOWED Veuf	
		DIVORCED Divorcé	
		SEPARATED Séparé	
		PROTESTANT Protestant	
		CATHOLIC Catholique	
		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. Acute and Organizing Diffuse Alveolar Damage			
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 Decubitus Ulcers			
MODE OF DEATH Condition de décès	AUTOPSY PERFORMED Autopsie effectuée	CIRCUMSTANCES SURROUNDING DEATH DUE TO EXTERNAL CAUSES Circonstances de la mort suscitées par des causes extérieures	
<input checked="" type="checkbox"/> NATURAL Mort naturelle	<input checked="" type="checkbox"/> YES OUI		
<input type="checkbox"/> ACCIDENT Mort accidentelle	<input type="checkbox"/> NO NON		
<input type="checkbox"/> SUICIDE Suicide	NAME OF PATHOLOGIST Nom du pathologiste (b)(6)		
<input type="checkbox"/> HOMICIDE Homicide	SIGNATURE (b)(6)	DATE 4 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 1/18/2007		SIGNATURE (b)(6)	

DD FORM 1 APR 77 2064

REPLACES DA FORM 1368, 1 JAN 72 AND DA FORM 1368-R(PAS), 26 SEP 75, WHICH ARE OBSOLETE.

MEDCOM 0453