

# 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: MUHAISIN, Jamil Iraqi National Detainee (b)(6)	Autopsy No: (b)(6)				
Date of Birth (b)(6) 1937  Date of Death: (b)(6) 2006  Date of Autopsy: 04 DEC 2006 @ 1230  Date of Report: 16 JAN 2007	AFIP No: (b)(6)  Rank: Civilian  Place of Death: Camp Bucca, Iraq  Place of Autopsy: Dover AFB Port Mortuary  Delaware				
detainee in Camp Bucca, Iraq. He reportedly	was a 69 year-old male, Iraqi National, held as a suffered a myocardial infarction on 23 November arrhythmias. Despite advanced care including 2006.				
Authorization for Autopsy: Office of the Artitle 10 US Code, Section 1471 (10 USC 147	rmed Forces Medical Examiner, in accordance with				

CAUSE OF DEATH: Atherosclerotic Cardiovascular Disease

Identification: Identification established by investigative agency

MANNER OF DEATH: Natural

#### AUTOPSY DIAGNOSES:

I.

#### A.Heart:

Cardiomegaly, 540 grams
Calcific stenosis, 60% of the left main coronary artery
Calcific stenosis, 99% of the proximal left anterior descending coronary artery
Stenosis, 80% of the proximal right coronary artery
Acute myocardial infarction, left ventriculo-septum
Severe aortic atherosclerosis with plaque erosions

## B. Lungs:

Marked bilateral pleural and intraparenchymal anthrocotic pigment deposition Marked pulmonary edema (combined lung weight 2000 gm)
Bilateral pulmonary effusions; 500 ml right, 400 left
Acute bronchopulmonary and lobar pneumonia
Emphysema

C. Kidneys: Arteriolonephrosclerosis

D. Thyroid Gland: Follicular adenoma and nodular hyperplasia

E. Prostate Gland: Benign nodular hyperplasia

## II. No external injuries

III. Evidence of medical treatment includes placement of a nasogastric tube; endotracheal tube intravascular devices in the left side of the neck, both antecubital fossae, left wrist and left groin; needle puncture marks with surrounding ecchymosis on the back of the right hand; cardiac monitor/defibrillator pads on the anterior chest and abdomen; a Foley catheter is in the penis

## IV. Toxicological examination:

VOLATILES: The blood and vitreous fluid are negative for ethanol at a cutoff level of 20 mg/dL.

CARBON MONOXIDE: The carboxyhemoglobin (COHgb) saturation in the blood is less than 1% as determined by spectrophotometry with a limit of quantitation of 1%. Saturations above 10% are considered elevated and are confirmed by gas chromatography.

CYANIDE: 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 amphetamine, antidepressants, antihistamines, barbiturates, benzodiazepines, cannabinoids, chloroquine, cocaine, dextromethorphan,

Muhaisin (b)(6)

lidocaine, narcotic analgesics, opiates, phencyclidine, phenothiazines, sympathomimetic amines and verapamil by gas chromatography, color test or immunoassay. The following drugs are detected:

- Benzodiazepine, Midazolam, is detected in the blood by immunoassay and confirmed by gas chromatography/mass spectrometry. The blood contains 0.08 mg/L of Midazolam as quantitated by gas chromatography/mass spectrometry.
- o Benzodiazepine, Alphahydroxymidazolam (a metabolite of Midazolam), is detected in the blood by gas chromatography and confirmed by gas chromatography/mass spectrometry. The blood contains 0.03 mg/L of Alphahydroxymidazolam as quantitated by gas chromatography/mass spectrometry.
- Benzodiazepine, (Lorazepam), is detected in the blood by gas chromatography/mass spectrometry. The blood contains 0.033 mg/L of Lorazepam as quantitated by gas chromatography/mass spectrometry.
- Lidocaine is detected in the blood by immunoassay and confirmed by gas chromatography/mass spectrometry.

## EXTERNAL EXAMINATION

The body is that of a well-developed 67-inch tall, 164 pound Caucasian male whose appearance is consistent with the reported age of 69-years. Lividity is fixed on the posterior aspect of the body and rigor has passed. The temperature is cold, that of the refrigeration unit.

The scalp is covered with brown hair with frontal balding and temporal greying. Facial hair consists of a brown mustache. The irides are brown and the pupils are round and equal in diameter. The external auditory canals are free of foreign material. The ears are unremarkable. The nares are patent and the lips are atraumatic. The nose and maxillae are palpably stable. The teeth are natural.

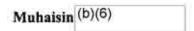
The neck is straight, and the trachea is midline and mobile. The chest is symmetric. The abdomen is moderately protuberant. The genitalia are those of a normal adult circumcised male. The testes are descended and free of masses. Pubic hair is present in a normal distribution. The buttocks and anus are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

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

## CLOTHING AND PERSONAL EFFECTS

The deceased is unclad and personal effects are not present on the body at the time of autopsy.

Page 3 of 7 MEDCOM 0456



## MEDICAL INTERVENTION

Evidence of medical treatment includes placement of a nasogastric tube and endotracheal tube; intravascular devices in the left side of the neck, both antecubital fossae, left wrist and left groin; needle puncture marks with surrounding ecchymosis are on the back of the right hand; cardiac monitor/defibrillator pads on the anterior chest and abdomen; a Foley catheter is in the penis

## RADIOGRAPHS

A complete set of postmortem radiographs is obtained and shows no acute injuries or abnormalities.

## EVIDENCE OF INJURY

There are no external injuries.

## INTERNAL EXAMINATION

<u>HEAD</u>: 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 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, brainstem, cerebellum, and arterial systems are free of injury or other abnormalities. There are no skull fractures. The atlanto-occipital joint is stable.

<u>NECK</u>: 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 gland is bilaterally enlarged and nodular with cystic changes, greater on the right than left. A well circumscribed 1 cm nodule is on the left lobe and frequent cysts, ranging in size from 1 to 2 cm, are present. The right lobe shows several cysts ranging from 1 to 3 cm in greatest dimension. A poorly defined 2 cm nodule is present and on sectioning contains dark brown fluid.

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. Longitudinal incisions of the back, buttocks, thighs, ankles and wrist show no evidence of 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 chest cavity contains 500 ml of serosanguinous fluid and the left contains 400 ml of serosanguinous fluid. The organs occupy their usual anatomic positions.

RESPIRATORY SYSTEM: The right and left lungs are grossly edematous and weigh 1140 and 860 gm, respectively. Bilateral pleural adhesions are easily broken with gentle dissection. The external surfaces are otherwise smooth and deep red-purple with marked deposition of anthracotic pigment on the pleura and within the lung parenchyma. The pulmonary parenchyma is markedly congested and edematous. No mass lesions or areas of consolidation are present.

<u>CARDIOVASCULAR SYSTEM</u>: The 540 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 marked atherosclerosis:

- 99% (pinpoint lumen) calcific stenosis of the proximal left anterior descending coronary artery
- 80% calcific stenosis of the proximal to mid right coronary artery
- 60% calcific stenosis of the left 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 1.7 cm and 0.5 cm thick, respectively. The endocardium is smooth and glistening. A definitive area of myo-necrosis is not identified. The aorta shows marked erosive atherosclerosis along the thoracic and abdominal segments.

<u>LIVER & BILIARY SYSTEM</u>: The 1960 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 35 ml of green-black bile and no stones. The mucosal surface is green and velvety. The extrahepatic biliary tree is patent.

SPLEEN: The 260 gm spleen has a smooth, intact, red-purple capsule. The parenchyma is maroon and congested, with distinct Malpighian corpuscles.

<u>PANCREAS</u>: The pancreas is firm and yellow-tan, with the usual lobular architecture. No mass lesions or other abnormalities are seen.

<u>ADRENALS</u>: 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 nodular; the right kidney weighs 160 gm and the left weighs 140 gm. The external surfaces are rough and granular and the capsules strip with difficulty from the cortical surfaces. The cut surfaces are red-tan and congested and the corticomedullary junctions are poorly demarcated. 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 moderately enlarged, with lobular, yellow-tan parenchyma. A 1-cm, well circumscribed nodule occupies the right lobe. The seminal vesicles are unremarkable. The testes are free of mass lesions, contusions, or other abnormalities.

Muhaisin (b)(6)

GASTROINTESTINAL TRACT: The esophagus is intact and lined by smooth, grey-white mucosa. The stomach contains approximately 50 ml of dark brown fluid. The gastric wall is intact. The duodenum, loops of small intestine and colon are unremarkable. The appendix is present.

## MICROSCOPIC EXAMINATION

Selected portions of organs are retained in formalin with preparation of the following histologic slides:

- 1. Brain: frontal cortex and hippocampus no pathologic abnormality
- 2. Brain: pons no pathologic abnormality
- 3. Brain: cerebellum no pathologic abnormality
- Thyroid gland, left follicular adenoma, 1cm
- Thyroid gland, right nodular hyperplasia (adenomatous goiter); follicular adenoma, 0.5
   cm
- Prostate gland benign prostatic hyperplasia
- Coronary artery, proximal LAD confirms the gross observation
- Coronary arteries, left and right confirms the gross observation
- 10. Heart, left ventricle: acute inflammation with myocyte necrosis and contraction bands
- Hearts: septum acute inflammation with myocyte necrosis and contraction bands right ventricle - no pathologic abnormality
- Aorta: severe atherosclerosis
- Liver: centro-lobular congestion
  - Kidney: hyaline arteriolosclerosis; interstitial fibrosis
- 14/15. Lung: acute bronchopulmonary and lobar pneumonia; emphysematous change

#### ADDITIONAL PROCEDURES

- Documentary photographs are taken by the OAFME Photographer
- Specimens retained for toxicological testing and/or DNA identification are: vitreous fluid, blood, bile, liver, spleen, kidney, lung, brain, psoas muscle and gastric contents
- The dissected organs are forwarded with the body
- Personal effects are released to the appropriate mortuary operations representatives.

Muhaisin	(b)(6)
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## OPINION

Based on these autopsy findings and the investigative information available to me, the cause of death of (b)(6) is severe atherosclerotic cardiovascular disease complicated by an acute myocardial infarction and acute pneumonia. Additional incidental autopsy findings (non contributory to the cause of death) include a follicular adenoma and nodular hyperplasia of the thyroid gland and benign hypertrophy of the prostate gland. Toxicology findings show medications consistent with hospital care and resuscitation.

The manner of death is natural.



Armed Forces Medical Examiner System

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REPLACES DA FORM 3668, 1 JAN 72 AND DA FORM 3665-R(PAS), 26 SEP 76, WHICH ARE OBSOLETE.