



**ARMED FORCES INSTITUTE OF PATHOLOGY**  
**Office of the Armed Forces Medical Examiner**  
1413 Research Blvd., Bldg. 102  
Rockville, MD 20850  
1-301-319-0000



**FINAL AUTOPSY REPORT**

Name: Mahmoud, Naffa Ibrahim  
ISN: (b)(6)  
Date of Birth: (b)(6) 1954  
Date of Death: (b)(6) 2007  
Date/Time of Autopsy: 2 June 2007  
@0730  
Date of Report: 28 June 2007

Autopsy No.: (b)(6)  
AFIP No.: (b)(6)  
Rank: Iraqi detainee  
Place of Death: Iraq  
Place of Autopsy: Port Mortuary, Dover  
AFB, DE

**Circumstances of Death:** This 53 year-old Iraqi detainee reportedly collapsed while speaking with his son, who is also a detainee, at Compound 2B, Camp Remembrance II, Theatre Internment Facility, Camp Cropper, Bagdad, Iraq.

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

**Identification:** Accompanying documentation establishes presumptive identification

**CAUSE OF DEATH:** Hypertensive atherosclerotic cardiovascular disease

**MANNER OF DEATH:** Natural

**FINAL AUTOPSY DIAGNOSES**

- I. Hypertensive atherosclerotic cardiovascular disease:**
- A. Coronary artery calcifying atherosclerosis
    - 1. Left coronary artery with 95% stenosis (gross observation)
    - 2. Left anterior descending artery with 99% stenosis (gross observation)
    - 3. Left circumflex artery with 75% stenosis (gross observation)
    - 4. Right coronary artery with 95% stenosis (gross observation)
  - B. Transmural cardiac myocyte replacement fibrosis, anterior wall of the left ventricle, 1.5 x 1.0 x 0.5 centimeters
  - C. Cardiomegaly (580 grams) with cardiac myocyte hypertrophy,
  - D. Hypertensive changes of the kidneys
- II. Evidence of medical therapy:**
- A. Endotracheal tube appropriately positioned and secured with tape
  - B. Five electrocardiogram pick ups on the anterior torso
  - C. Two defibrillator pads appropriately positioned on the anterior torso
  - D. Intravenous catheter in the right antecubital fossa secured with purple tape
  - E. Puncture mark to the left antecubital fossa
  - F. Bilateral anterior rib fractures
- III. Post-mortem changes:**
- A. Lividity fixed on the posterior surface of the body except where exposed to pressure
  - B. Rigor passing to an equal degree in all extremities
  - C. Body cold
- IV. Identifying marks:**
- A. Brown papule on the right upper cheek, 1/8-inch
  - B. Well healed scar to the lateral and upper surface of the right thigh
  - C. Well healed scar above the right knee, 1-1/2 x 1-inches
  - D. Firm, raised subdermal nodule to the anterior surface of the right foot, 1/2-inch
  - E. Missing right 5<sup>th</sup> toe
- V. Toxicology:**
- A. Volatiles (blood and vitreous fluid): No ethanol detected
  - B. Screened medications and screened drugs of abuse (blood): None detected
  - C. Carbon monoxide (blood): carboxyhemoglobin saturation less than 1%
  - D. Cyanide (blood): None detected

**Mahmoud, Naffa Ibrahim**

**VI. Microscopy:**

- A. Heart: extensive transmural myocyte replacement fibrosis; mild myocyte hypertrophy
- B. Coronary vessels: calcifying atheromas, with one section demonstrating 90 % stenosis
- C. Kidney: obsolescent glomeruli; arterosclerosis; arteriolosclerosis; interstitial fibrosis
- D. Lung: vascular congestion, otherwise unremarkable
- E. Liver: vascular congestion, otherwise unremarkable

### **EXTERNAL EXAMINATION**

The body is that of a well-developed, well-nourished appearing Male whose appearance is consistent with the reported age of 53 years. The body is 68 inches in length and weighs 178 pounds. Lividity is fixed on the posterior aspect of the body except where exposed to pressure. Rigor is equal in all extremities. The body temperature is cold.

The head and the face are atraumatic. There is a 1/8-inch brown papule on the left cheek. The scalp is covered with closely shaved brown and grey hair with male patterned baldness. The irides are brown, the corneae are clear, the conjunctivae are unremarkable, and the sclerae are white. The external auditory canals are unremarkable. The ears are unremarkable. The nares and the lips are unremarkable. The nose and maxillae are palpably intact. The teeth are natural with multiple remotely absent. The neck is straight, and the trachea is midline and mobile.

The chest is unremarkable. The abdomen is soft with no palpable masses. The genitalia are those of a normal adult circumcised male. The testes are present and free of masses. Pubic hair is present in a normal distribution. The back is unremarkable. The buttocks and anus are unremarkable.

The upper and lower extremities are symmetric and without clubbing or edema. There is a 1-1/2 x 1-1/4-inch well healed scar on the upper lateral surface of the right thigh. A 1-1/2-inch x 1-inch well healed scar on the right knee. A 1/2-inch firm flesh colored nodule is on the dorsum of the foot. The right 5<sup>th</sup> toe is absent.

There is a personal effects bag secured to the left wrist. A paper identification tag is secured to the right wrist. The left wrist has an orange band with the words "Insulin Dependent Diabetic." A Dover Port Mortuary identification tag is secured to the left ankle.

### **CLOTHING AND PERSONAL EFFECTS**

The following clothing items and personal effects accompany the body at the time of autopsy:

- White shirt, previously cut and partially wrapped around the right arm
- Yellow trousers
- White boxer shorts
- Three passports
- Four picture identifications
- Five miscellaneous papers
- Watch inscribed (b)(6)
- Compact disc with pictured cover
- Various medications in plastic bags with dosing instructions, to include:
  - Paxil 20 milligrams
  - Lisinopril 10 milligrams
  - Glyburide 5 milligrams

**Mahmoud, Naffa Ibrahim**

- Tamsulosin 0.4 milligrams
- Multivitamins
- Lasix 20 milligrams
- Metformin 500 milligrams
- Aspirin 81 milligrams

### **MEDICAL INTERVENTION**

- Endotracheal tube appropriately positioned and secured with white tape
- Vascular catheter in the right antecubital fossa secured with purple tape and connected to IV tubing
- Puncture site in the left antecubital fossa
- Two defibrillator pad on the anterior torso
- Five electrocardiogram pick-ups on both shoulders and the left upper thigh
- Bilateral anterior rib fractures
  - Right anterior 3<sup>rd</sup> through 5<sup>th</sup>
  - Left anterior 3<sup>rd</sup> through 5<sup>th</sup>

### **RADIOGRAPHS**

A complete set of postmortem radiographs is obtained and demonstrates no traumatic injuries.

### **EVIDENCE OF INJURY**

There is no evidence of recent injury. A complete dissection of the back, buttocks and posterior extremities reveals no intramuscular hemorrhage.

### **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 1520 gram 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, and cerebellum are free of injury or other abnormalities. The arterial system is anatomically normal and there is mild atherosclerosis of the internal carotid arteries. There are no skull fractures. The atlanto-occipital joint is stable.

#### **NECK:**

Layer by layer dissection of the anterior neck is performed. 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.

**Mahmoud, Naffa Ibrahim****BODY CAVITIES:**

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 weigh 890 and 700 grams, respectively. The external surfaces are smooth and deep red-purple. The pulmonary parenchyma is diffusely congested and edematous. No mass lesions or areas of consolidation are present.

**CARDIOVASCULAR SYSTEM:**

The 580 gram heart is contained in an intact pericardial sac. The epicardial surface is smooth, with moderate fat investment. The coronary arteries are present in a normal distribution. Cross sections of the vessels show 95 % calcifying atherosclerotic stenosis of the left coronary artery, 99% calcifying atherosclerotic stenosis of the entire left anterior descending artery, 75% calcifying atherosclerotic stenosis of the proximal left circumflex artery and 95% calcifying atherosclerotic stenosis of the right coronary artery. The myocardium of the anterior wall of the left ventricle is replaced by transmural fibrosis, 1.5 x 1.0 x 0.5-centimeters. The valve leaflets are thin and mobile. The anterior, lateral, posterior and interventricular walls of the left ventricle are 0.8-centimeter, 1.2-centimeters, 1.4-centimeters and 1.3-centimeters respectfully. The right ventricular wall is 0.2-centimeters. The endocardium is smooth and glistening. The aorta gives rise to three intact and patent arch vessels and has diffuse calcifying atheromas. The renal and mesenteric vessels are unremarkable.

**LIVER & BILIARY SYSTEM:**

The 1640 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 5-milliliters of green-black bile and no stones. The mucosal surface is green and velvety. The extrahepatic biliary tree is patent.

**SPLEEN:**

The 300 gram spleen has a smooth, intact, red-purple capsule. The parenchyma is maroon and congested, with distinct lymphoid follicles.

**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 red-brown medullae. No masses or areas of hemorrhage are identified.

**Mahmoud, Naffa Ibrahim****GENITOURINARY SYSTEM:**

The right and left kidneys weigh 140 and 180 grams, respectively. The external surfaces are intact and diffusely granular. 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 30 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 contains approximately 300 milliliter of tan viscous fluid with whole black beans. The gastric wall is intact. The duodenum, loops of small bowel, and colon are unremarkable. The appendix is present.

**MUSCULOSKELETAL:**

No non-traumatic abnormalities of muscle or bone are identified.

**MICROSCOPIC EXAMINATION**

- Heart: extensive transmural myocyte replacement fibrosis; mild myocyte hypertrophy
- Coronary vessels: calcifying atheromas, with one section demonstrating 90 % stenosis
- Kidney: obsolescent glomeruli; arterosclerosis; arteriolosclerosis; interstitial fibrosis
- Lung: vascular congestion, otherwise unremarkable
- Liver: vascular congestion, otherwise unremarkable

**TOXICOLOGY**

- Volatiles (blood and vitreous fluid): No ethanol detected
- Screened medications and screened drugs of abuse (blood): None detected
- Carbon monoxide (blood): carboxyhemoglobin saturation less than 1%
- Cyanide (blood): None detected

**ADDITIONAL PROCEDURES**

1. Documentary photographs are taken by OAFME staff photographers.
2. Full body radiographs and computed tomography are obtained.
3. Specimens retained for toxicology testing and/or DNA identification are: Blood, vitreous fluid, bile, urine, gastric contents, brain, heart, 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.
6. Personal effects are released to the appropriate mortuary operations representatives.



**OPINION**

This 53-year-old Male Iraqi detainee (b)(6) died from hypertensive atherosclerotic cardiovascular disease. The decedent had documented insulin dependent diabetes mellitus and essential hypertension. The decedent had significant narrowing of the coronary arteries, a prior healed myocardial infarction, a large heart and changes to the heart and kidneys consistent with hypertension. Toxicology analyses are negative for ethanol, screened drugs of abuse, screened medication and cyanide. Toxicology analysis for carbon monoxide is less than 1%. 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'Ouvre-Mer)			
NAME OF DECEASED (Last, First, Middle) Nom du décédé (Nom et prénoms) <b>BTB Mahmoud, Neffa, Ibrahim</b>		GRADE Grade	BRANCH OF SERVICE Armée <b>Civilian</b>
ORGANIZATION Organisation		NATION (e.g. United States) Pays <b>Iraq</b>	SOCIAL SECURITY NUMBER Numéro de l'Assurance Sociale <b>(b)(6)</b>
		DATE OF BIRTH Date de naissance <b>(b)(6) 1954</b>	SEX Sexe <input checked="" type="checkbox"/> MALE <input type="checkbox"/> FEMALE
RACE Race		MARITAL STATUS État civil	
<input checked="" type="checkbox"/> CAUCASOID Caucasique	<input type="checkbox"/> NEGROID Négré	<input type="checkbox"/> SINGLE Célibataire	<input type="checkbox"/> DIVORCED Divorcé
<input type="checkbox"/> OTHER (Specify) Autre (Spécifier)	<input type="checkbox"/> MARRIED Marié	<input type="checkbox"/> SEPARATED Séparé	<input checked="" type="checkbox"/> OTHER (Specify) Autre (Spécifier)
NAME OF NEXT OF KIN Nom du plus proche parent		RELATIONSHIP TO DECEASED Rapport du décès avec le déf.	
STREET ADDRESS Domicile à (Ville)		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) <b>Hypertensive atherosclerotic cardiovascular disease</b>			INTERVAL BETWEEN ONSET AND DEATH Intervalle entre l'apparition et le décès
DISEASE OR CONDITION DIRECTLY LEADING TO DEATH Maladie ou condition directement responsable de la mort			
ANTICIPATED CAUSE 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 au 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 suscitée par des causes extérieures	
<input checked="" type="checkbox"/> NATURAL Mort naturelle	ALL CAUSES OF DEATH Toutes les causes de décès <b>(b)(6)</b>		DATE DEB <b>2 June 2007</b>
<input type="checkbox"/> ACCIDENT Mort accidentelle	CONCISE PRINCIPALS OF RELIGION Concises principes de religion		
<input type="checkbox"/> SUICIDE Suicide	<b>(b)(6)</b>		
<input type="checkbox"/> HOMICIDE Homicide	<b>(b)(6)</b>		AVIATION ACCIDENT Accident d'Avion <input type="checkbox"/> YES OUI <input checked="" type="checkbox"/> NO NON
DATE OF DEATH (Day, month, year) Date du décès (Jour, mois, année) <b>(b)(6) 2007</b>	PLACE OF DEATH Lieu du décès <b>Baghdad Iraq</b>		
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 déf. et suis en accord 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 civil <b>(b)(6)</b>		TITLE OR DEGREE Titre ou diplôme <b>Medical Examiner</b>	
GRADE Grade <b>(b)(6)</b>	INSTALLATION OR ADDRESS Installation ou adresse <b>(b)(6)</b>		
DATE Date <b>8/2/2007</b>			
<small>         * State location, type of transportation vehicle involved, etc.          * State conditions contributing to the death, but not related to the cause of death, as it appears on the certificate.          * Do not include the name of the deceased on the certificate.       </small>			

DD FORM 1 APR 77 2064

MEDCOM 0894