

## ARMED FORCES INSTITUTE OF PATHOLOGY Office of the Armed Forces Medical Examiner

1413 Research Blvd., Bldg. 102 Rockville, MD 20850 1-301-319-0000 (FAX 1-301-319-0635)



## FINAL AUTOPSY REPORT

Name: ALI. Ismael Hamid

ISN: (b)(6)

Date of Birth: (b)(6)

Date of Deatt

Autopsy No. (b)(6)

AFIP No.: (b)(6)

Rank: Civilian Iraqi Detainee

Place of Death: Iraq (Camp Bucca)

Place of Autopsy: 04 JUN 1100 hours

Date of Report: 08 JUL 2006

## Circumstances of Death:

(b)(6) is a 32 year-old civilian Iraqi detainee at the Theater Internment Facility at Camp Bucca, Iraq who collapsed while playing volleyball. He was unresponsive to oral commands and made gurgling sounds. He was not breathing and was pulseless with fixed and dilated pupils when received at the nearest medical facility. Basic and advanced cardiac (CPR/ACLS) life support measures were unsuccessful.

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

Identification:
(b)(6) was identified by detention camp wrist bracelet, toe tags and transportation documents. A muscle sample is collected for DNA comparison if needed.

## CAUSE OF DEATH:

Arrhythmogenic Right Ventricular Dysplasia

## MANNER OF DEATH:

Natural

## FINAL AUTOPSY DIAGNOSIS:

## I. A. Cardiovascular System:

- Cardiomegaly, mild, 480 grams.
- Heart is submitted for further specialized examination at the Armed Forces Institute of Pathology.
  - Arrhythmogenic right ventricular dysplasia.
  - Coronary arteries with no significant pathological changes.

## B. Respiratory System:

- Pulmonary edema, extensive, right lung 1730 grams and left lung 1270 grams.
- Frothy fluid fills the trachea and major bronchi.

## C. Other Body Systems:

Passive congestion of liver, spleen and kidneys.

## D. Injuries

- A longitudinal superficial abrasion is noted on the posterior surface of the proximal right forearm.
- No evidence of other blunt or shape force trauma.

## II: Evidence of Medical Intervention:

- a. Endotracheal tube, properly positioned.
- b. Gastric tube.
- c. Multiple IV lines into both anticubital fossae.
- d. Urinary catheter, properly positioned.
- e. EKG pads.
- Automatic Defibrillator Pads (2) on the torso.

#### III. Evidence Collection: none

## IV. Identification Marks:

•	A tattoo (b		
	(b)(6) (b)(6)		
	(b)(6)	tattoos (b)(6)	
	(b)(6)		

- A tattoo (b)(6)
- Multiple scars are noted of chin and both distal thighs.

#### VI. Toxicology:

- Negative.
- Carboxyhemoglobin saturation in the blood is 2% (0-3% saturation is expected in non-smokers).
- Cyanide, negative.
- No evidence of ethanol, screened medications or drugs of abuse.

## EXTERNAL EXAMINATION

The unclad body is that of a well-developed, well-nourished male. The body weighs 197 pounds, is 72" in height and appears compatible with the reported age of 32 years. The body is cold. Rigor is present to an equal degree in all extremities. Lividity is present and fixed on the posterior surface of the body, except in areas exposed to pressure. The scalp hair is Black and has a Black mustache. The irides are brown. The corneae are dull. The conjunctivae are slightly congested. The sclerae are unremarkable. The external auditory canals, external nares and oral cavity are free of foreign material and abnormal secretions. The nasal skeleton is palpably intact. The lips are without evident injury, and reveal postmortem drying. The teeth are natural and in good condition. Examination of the neck revealed no evidence of injury. The chest is unremarkable. No injury of the ribs or sternum is evident externally. The abdomen is unremarkable. No major surgical scars are noted. The extremities show no evidence of remote or recent trauma. The fingernails are intact. Tattoos (b)(6)

(b)(6 A skin tag is noted behind the right ear. The external genitalia are those of a normal adult circumcised male. The posterior torso is without note.

## EVIDENCE OF THERAPY

Endotracheal tube and gastric tube, properly positioned, multiple IV lines into both anticubital fossae, urinary catheter, properly positioned, EKG pads and Automatic Defibrillator Pads.

## EVIDENCE OF INJURY

No evidence of major trauma, recent or remote, is identified. An abrasion is noted on the back of the right forearm. Minor scars are noted on the distal thigh, bilaterally.

## INTERNAL EXAMINATION

## **BODY CAVITIES:**

The body is opened by the usual thoraco-abdominal incision and the chest plate is removed. No adhesions are noted of the body cavities. 200 ml of effusion fluid are present in each of the right and left pleural cavities and in the pericardial cavity. No excess fluid is seen in the peritoneal cavity. All body organs are present in the normal anatomical position. There is no internal evidence of blunt force or penetrating injury to the thoraco-abdominal region.

## **HEAD: (CENTRAL NERVOUS SYSTEM)**

The scalp is reflected. The calvarium of the skull is removed. The dura mater and falx cerebri are intact. There is no epidural or subdural hemorrhage present. The leptomeninges are thin and delicate. The brain weighs 1470 grams. The cerebral hemispheres are symmetrical. The structures at the base of the brain, including cranial nerves and blood vessels, are intact. Coronal sections through the cerebral hemispheres revealed no lesions.

Transverse sections through the brain stem and cerebellum are unremarkable. No significant pathological changes are noted.

## NECK:

Examination of the soft tissues of the neck, including strap muscles, thyroid gland and large vessels, reveals no abnormalities. The hyoid bone and larynx are intact.

## CARDIOVASCULAR SYSTEM:

The pericardial surfaces are smooth, glistening and unremarkable; the pericardial sac is free of significant fluid and adhesions. The heart weighs 480 grams. The aorta and its major branches and the venae cavae and their major tributaries follow the usual distribution and are grossly unremarkable. The heart is fixed in formalin and submitted for further studies. (Please see the Cardiovascular Consultation Report below).

## RESPIRATORY SYSTEM:

The upper airway is clear of debris and foreign material, but reveals presence of frothy fluid; the mucosal surfaces are smooth, yellow-tan and unremarkable. The pleural surfaces are smooth, glistening and unremarkable bilaterally. The pulmonary parenchyma is red-purple, exuding excessive amounts of edematous fluid; no focal lesions are noted. The pulmonary arteries are normally developed, patent and without thrombus or embolus. The right lung weighs 1370 grams; the left 1270 grams.

## LIVER & BILIARY SYSTEM:

The hepatic capsule is smooth, glistening and intact, covering dark red-brown, markedly congested parenchyma with no focal lesions noted. The gallbladder contains dark green mucoid bile; the mucosa is velvety and unremarkable. No stone present. The extrahepatic biliary tree is patent, without evidence of calculi. The liver weighs 2060 grams.

## ALIMENTARY TRACT:

The tongue exhibits no evidence of recent injury. The esophagus is lined by gray-white, smooth mucosa. The gastric mucosa is arranged in the usual rugal folds and the lumen contains greenish fluid. The gastric mucosa is congested with no ulceration. The small and large bowels are unremarkable. The pancreas has a normal pink-tan lobulated appearance and the ducts are clear. The appendix is present and grossly unremarkable.

#### GENITOURINARY SYSTEM:

The renal capsules are smooth and thin, semi-transparent and strip with ease from the underlying smooth, red-brown cortical surfaces. The cortices are sharply delineated from the medullary pyramids, which are red-purple to tan and unremarkable. The calyces, pelves and ureters are unremarkable. The urinary bladder contains no urine (urinary catheter is in place); the mucosa is gray-tan and unremarkable. The right kidney weighs 150 grams; the left 170 grams.

## RETICULOENDOTHELIAL SYSTEM:

The spleen has a smooth, intact capsule covering red-purple, moderately firm parenchyma; the lymphoid follicles are unremarkable. The regional lymph nodes appear normal. The spleen weighs 260 grams.

## ENDOCRINE SYSTEM:

The pituitary, thyroid and adrenal glands are unremarkable.

## MUSCULOSKELETAL SYSTEM:

Muscle development is normal. No bone or joint abnormalities are noted.

## ADDITIONAL PROCEDURES

- Documentary photographs are taken by an OAFME photographer.
- Full body radiographs document absence of skeletal injuries or evidence of trauma.
- Specimens retained for toxicological and/or DNA identification are: blood, vitreous fluid, bile, urine, gastric contents and tissue samples from liver, lung, kidney, spleen, brain, psoas muscle and adipose tissue.
- Representative sections of organs are retained in formalin for microscopic examination if needed in the future.
- Clothing, personal effects and military gear are released to the appropriate mortuary operations representative.

## CARDIOVASCULAR CONSULT

DIAGNOSIS: Arrhythmogenic Right Ventricular Dysplasia

History: 32 year old male Iraqi detainee who collapsed while playing volleyball.

Heart: 480 grams; normal epicardial fat; closed foramen ovale; normal left ventricular chamber dimensions: left ventricular cavity diameter 40 mm, left ventricular free wall thickness 12 mm, ventricular septum thickness 14 mm.; right ventricular dilatation with fibrofatty replacement, focal transmural scarring, and coarsely trabeculated endocardial surface with focal thickening; mildly thickened and redundant mitral valve leaflets; small fenestration, left coronary cusp of aortic valve; transmural scars, anterior and posterior right ventricle; histological sections show transmural fibrofatty replacement of right ventricle with focal attenuation and vacuolization of myocardial fibers, and rare foci of single cell necrosis with lymphohistiocytic infiltrates; unremarkable left ventricular myocardium.

Coronary Arteries: Normal ostia; right dominance; no gross atherosclerosis

## **OPINION**

(b)(6)	a 32 year-old Iraqi detainee, who collapsed while playing volleyball at
ventricular of transmural s recent or rer	nt facility, died from cardiac arrhythmia secondary to "arrhythmogenic right lysplasia. Examination of the heart revealed fibrofatty replacement, carring and fenestration of the right ventricle. There was no evidence of note trauma. Toxicological studies were negative for ethanol, screened and drugs of abuse. Manner of death is "natural".
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Name

ALI, ISMAEL HAMID

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Autopsy: (b)(6)

Toxicology Accession #: (b)(6)

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Date Report Generated: June 12, 2006

## CONSULTATION REPORT ON CONTRIBUTOR MATERIAL

AFIP DIAGNOSIS

REPORT OF TOXICOLOGICAL EXAMINATION

Condition of Specimens: GOOD

Date of Incident (b)(6) 2006

Date Received: 6/6/2006

CARBON MONOXIDE: The carboxyhemoglobin saturation in the blood was 2% as determined by spectrophotometry with a limit of quantitation of 1%. Carboxyhemoglobin saturations of 0-3% are expected for non-smokers and 3-10% for smokers. Saturations above 10% are considered elevated and are confirmed by gas chromatography.

VOLATILES: The HEART BLOOD AND URINE were examined for the presence of ethanol at a cutoff of 20 mg/dL. No ethanol was detected.

CYANIDE: There was no cyanide detected in the heart 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 URINE was screened for acetaminophen, amphetamine, antidepressants, antihistamines, barbiturates, benzodiazepines, cannabinoids, chloroquine, cocaine, dextromethorphan, lidocaine, narcotic analgesics, opiates, phencyclidine, phenothiazines, salicylates, sympathomimetic amines and verapamil by gas chromatography, color test or immunoassay. The following drugs were detected:

None were found.

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