

# 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: BTB Karim, Ala Shnaywir SSAN: (b)(6)

Date of Birth: (b)(6) 1982 Date of Death (b)(6) 2008

Date/Time of Autopsy: 09 APR 2008 @ 0900

Date of Report: 15 JUL 2008

Autopsy No.: (b)(6)
AFIP No.: (b)(6)

Grade: Civilian, Detainee Place of Death: Iraq

Place of Autopsy: Dover Mortuary

Dover AFB, DE

Circumstances of Death: This 25 year-old detained was being detained in Theater Internment Facility (TIF) Camp Bucca, when as reported, he was observed to be vomiting outside of his tent. When questioned, he complained of being dizzy and vomiting blood. He was brought to the TIF hospital where he was listed in serious condition with a possible aneurysm. He was urgently MEDEVAC'd to the combat support hospital in Balad. While in the air, his condition worsened and the aircraft was diverted to Al Kut. All resuscitative measures were unsuccessful.

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

Identification: Presumptive identification via review of all accompanying paperwork.

Post-mortem fingerprints taken and dental exam performed. Suitable specimen for DNA analysis obtained.

CAUSE OF DEATH: Hemorrhage of the right cerebellum

MANNER OF DEATH: Natural

# EXTERNAL EXAMINATION

The body is that of a well-developed, well-nourished male. The body is 69 ½ inches in length, weighs 215 pounds, and appears compatible with the stated age of 25 years old. The body is cold. Lividity is fixed on the posterior surface of the body except in the areas exposed to pressure. The head and neck are suffused. Rigor is resolving to an equal degree in all extremities. There is marbling of the skin of both shoulders.

The scalp hair is black. On the back of the head is a 1-inch linear scar. Facial hair consists of a beard. The irides are indistinct. The corneae are cloudy. The conjunctivae are pale with no petechiae. The sclerae are white. The oral cavity, external nares, and external auditory canals are free of foreign material or abnormal secretions. There are no petechiae of the oral mucosa.

The chest is symmetric. The genitalia are those of a circumcised adult male. The anus is atraumatic.

The upper and lower extremities are symmetric and without clubbing or edema. The fingernails are intact. On the lateral right thigh is a 2 x 1-inch scar. A 2 x 1/4-inch scar is on the left knee. On the right knee is a 1 x 1/2-inch healing abrasion.

# CLOTHING AND PERSONAL EFFECTS

The body is clad in socks. Accompanying the body are three syringes, two bottles of vecuronium, and a bottle of midazolam (submitted to toxicology).

# MEDICAL INTERVENTION

An endotracheal tube is in the oral cavity and trachea. On the anterior torso are multiple EKG lead pads. A catheter is in the urethra and attached to a catch bag that contains 700 milliliters of yellow urine. Intravenous catheters are in the left groin, right wrist, and left antecubital fossa. There are multiple needle puncture marks of both clavicles, right antecubital fossa, and left wrist. There is gauze around the left wrist.

#### RADIOGRAPHS

A complete set of post-mortem radiographs is obtained and reveal no evidence of trauma.

#### EVIDENCE OF INJURY

There is no evidence of significant external or internal recent injury.

### INTERNAL EXAMINATION

#### BODY CAVITIES:

The ribs, sternum, and vertebral bodies are visibly and palpably intact. There are 100 milliliters of serosanguineous fluid in both chest cavities. No adhesions are present in any of the body cavities. The organs occupy their usual anatomic positions.

#### HEAD (CENTRAL NERVOUS SYSTEM) and NECK:

The galeal and subgaleal soft tissues of the scalp are free of injury. There are no skull fractures. The dura mater and falx cerebri are intact. The leptomeninges are thin and delicate. There is no epidural or subdural hemorrhage. There is focal subarachnoid hemorrhage of the right cerebellum. The brain weighs 1270 grams and is examined after

fixation. The cerebral hemispheres are symmetrical and the structures at the base of the brain are intact. The gyri and sulci are unremarkable. The surface of the right cerebellum is soft. Coronal sections through the cerebral hemispheres reveal no lesions. Transverse sections through the brain stem and cerebellum reveal a 3.0 x 3.0 x 3.0 centimeter area of hemorrhagic, soft, and friable tissue of the right cerebellum and scattered punctuate hemorrhages of the pons.

The anterior strap muscles of the neck are homogenous and red-brown (by layer-wise dissection). There is hemorrhage around the puncture sites superior to the clavicles. The thyroid cartilage and hyoid bone are intact. The larynx is lined by intact white mucosa. The tongue is free of bite marks, hemorrhage, or other injuries. The thyroid is symmetric and dark brown, without cystic or nodular change. Incision and dissection of the posterior neck demonstrates no deep paracervical muscular injury and no cervical spinal column fractures.

#### RESPIRATORY SYSTEM:

The upper airway is clear of debris and foreign material. The mucosal surfaces are smooth, yellow-tan and unremarkable. The right and left lungs weigh 700 and 700 grams, respectively. The pulmonary parenchyma red-purple exuding moderate amounts of blood. The pulmonary arteries are normally developed and patent without thrombus or embolus.

# CARDIOVASCULAR SYSTEM:

The heart weighs 380 grams and 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. There is tunneling of the proximal left anterior descending coronary artery (0.5 centimeters below the epicardium for 2.0 centimeters). The coronary arteries are widely patent. The myocardium is homogenous. The valve leaflets are thin and mobile. The walls of the left ventricle, interventricular septum, and right ventricle are 0.8, 0.8, and 0.2 centimeters, respectively. The right ventricle is dilated. The aorta and its major branches arise normally and follow the usual course and are unremarkable. The vena cava and its major tributaries return to the heart in the usual distribution and are free of thrombi.

#### LIVER & BILIARY SYSTEM:

The 2000 gram liver has an intact, smooth capsule and a sharp anterior border. The parenchyma is tan-brown with the usual lobular architecture with no focal lesions noted. The gallbladder contains 5 milliliters of dark-green bile. There is cholesterolosis of the gall bladder mucosa. The extrahepatic biliary tree is patent.

#### SPLEEN:

The 350 gram spleen has a smooth, intact, red-purple capsule. The parenchyma is maroon with unremarkable lymphoid follicles.

#### PANCREAS:

The pancreas is red-tan with a lobulated appearance. No mass lesions or other abnormalities are seen.

# ADRENALS:

The right and left adrenal glands are symmetric, with mild autolytic changes. No masses or areas of hemorrhage are identified.

#### GENITOURINARY SYSTEM:

The right and left kidneys weigh 170 and 160 grams, respectively. The external surfaces are intact and smooth. The cut surfaces are tan-red and the cortex is delineated from the medullary pyramids. The pelves are unremarkable and the ureters are normal in course and caliber. The bladder contains scant urine. The prostate and testes are unremarkable.

# GASTROINTESTINAL TRACT:

The esophagus is intact and lined by smooth, grey-white mucosa. The stomach, small bowel, colon, and appendix are unremarkable. The stomach contains 20 milliliters of brown fluid.

#### MUSCULOSKELETAL:

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

#### MICROSCOPIC EXAMINATION

Cerebellum (Slides 1 and 2): Parenchyma hemorrhage with dilated and tortuous blood vessels. Extensive loss of Purkinje cells and cells of the granular layer. Focal subarachnoid hemorrhage.

Pons (Slide 3): Scattered, hyper-eosiniophilic neurons.

# ADDITIONAL PROCEDURES

- Specimens retained for toxicology testing and/or DNA identification are: Blood, vitreous fluid, bile, urine, liver, myocardium, lung, kidney, spleen, psoas muscle, adipose tissue and gastric contents.
- The dissected organs are forwarded with the body. The brain is retained for further examination.
- Selected portions of organs are retained in formalin.
- Personal effects are released with the body.
- Recovered evidence: None.
- Skin incisions of the posterior torso, buttocks and extremities reveal no evidence of trauma.
- Documentary photographs are taken by autopsy is (b)(6) OAFME). (OAFME). Assisting with the

# FINAL AUTOPSY DIAGNOSES

- I. Hemorrhage of the right cerebellum:
  - A. Parenchyma hemorrhage of the right cerebellum with extensive loss of Purkinje cells
  - B. Focal subarachnoid hemorrhage of the right cerebellum
  - C. Punctate hemorrhages of the pons (consistent with herniation)
- II. Additional natural disease:
  - A. Tunneling of the proximal left anterior descending coronary artery
  - B. Cholesterolosis
- III. Evidence of medical intervention: As describe above
- IV. Identifying marks: As described above
- V. Post-mortem changes: As described above
- VI. Toxicology (AFIP):
  - A. VOLATILES: No ethanol detected in the blood and vitreous fluid
  - B. CARBON MONOXIDE: The carboxyhemoglobin saturation in the blood was 4%
  - C. CYANIDE: No cyanide detected in the blood
  - D. DRUGS: The following drugs were detected
    - 1. Lidocaine (urine)
    - 2. Promethazine (urine; none detected in the blood)
    - Pseudoephedrine (urine; none detected in the blood)
    - Midazolam (urine; none detected in the blood)
    - Acetaminophen (urine)
    - 6. Vecuronium (0.73 mg/L in the blood) and its metabolite 3-Desacetylvecuronium (blood)

# OPINION

This 25 year-old detainer (b)(6) died of a hemorrhage of the right cerebellum. The toxicology was positive for medications used in resuscitation (lidocaine, midazolam, and vecuronium), anti-nausea medication (promethazine) and over-thecounter medications (pseudoephedrine and acetaminophen). The manner of death is

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Carboxyhemoglobin saturations of 0-3% are expected for non-smokers and 3-10% for smokers.

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REPLACES DA FORM 1665, 1 JAN 72 AND DA FORM 1886-R(PAS), 26 SEP 75, WHICH ARE OBSOLETE.