

ARMED FORCES INSTITUTE OF PATHOLOGY

Office of the Armed Forces Medical Examiner

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AUTOPSY EXAMINATION REPORT

Name: SSAN Date of Birth: Unknown Date/Time of Death: 22 Aug 2003 Date/Time of Autopsy: 25 Aug 2003 Date of Report: 23 October 2003	Autopsy No.: ME 03-367(EPW#2) 347/ (Mission# 4875) AFIP No.:2892216 Rank: NA Place of Death: Iraq Place of Autopsy: Camp Sather, Iraq
or about the 22 nd of August was noted to and decreased sweating. Emergency med noted to have an axillary temperature of Attempts at intravenous access were uns	102 degrees and decreased oxygen saturation.
Authorization for Autopsy: Armed For	rces Medical Examiner, per 10 U.S. Code 1471
Identification: Presumptive by Army C	riminal Investigative Division (CID).

CAUSE OF DEATH: Heat related

Antemortem fingerprint, dental, and DNA unavailable.

MANNER OF DEATH: Accident



FINAL AUTOPSY DIAGNOSES:

- I. Heat stroke
 - A. Antemortem axillary temperature 102 degrees, clinical
 - B. Intravascular volume depletion, clinical
 - C. Pulmonary congestion (1650 grams)
 - 1. Hypoxia, clinical
- II. Mild decomposition



EXTERNAL EXAMINATION

The body is that of a well-developed, well-nourished appearing, muscular, 68 inch tall, 180-200 pounds (estimated) male whose appearance is consistent with an estimated age of greater than 40 years. Lividity is posterior, purple, and fixed. Rigor is absent.

There is early decomposition indicated by mild skin slippage, corneal and scleral drying, and decomposition fluid (30 and 20 mls) in the pleural cavities.

The scalp is covered with black hair in a normal distribution. Corneal clouding obscures the irides and the pupils. The external auditory canals are unremarkable. The ears are unremarkable. The nares are patent and the lips are atraumatic. The nose and maxillae are palpably stable. The teeth appear natural and adequate in repair.

The neck is straight, and the trachea is midline and mobile. The chest is symmetric. The abdomen is flat. The genitalia are those of a normal adult 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

None.

MEDICAL INTERVENTION

- Endotracheal tube
- Rectal catheter connected to normal saline
- Intravenous puncture marks of antecubital fossae

EVIDENCE OF INJURY

The ordering of the following injuries is for descriptive purposes only, and is not intended to imply order of infliction or relative severity. All wound pathways are given relative to standard anatomic position.

<u>INJURY:</u> On the anterior forearm is a circular 0.3 cm red abrasion.

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 1300 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.

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 are 30 ml and 20 ml of thin oily liquid in the right and left pleural cavities, respectively. The organs occupy their usual anatomic positions.

RESPIRATORY SYSTEM:

The right and left lungs weigh 850 and 800 gm, 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 300 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 no stenosis or arteriosclerotic change. The myocardium is homogenous, red-brown, and firm. The valve leaflets are thin and mobile. The walls of the left and right ventricles are 1.5 and 0.6 cm thick, respectively. The endocardium is smooth and glistening. The aorta gives rise to three intact and patent arch vessels. The renal and mesenteric vessels are unremarkable.

LIVER & BILIARY SYSTEM:

The 1150 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 approximately 20 ml of black bile and no stones. The mucosal surface is green and velvety. The extrahepatic biliary tree is patent.

SPLEEN:

The 150 gm spleen has a smooth, intact, red-purple capsule. 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. No masses or areas of hemorrhage are identified.

GENITOURINARY SYSTEM:

The right and left kidneys weigh 150 gm, each. The external surfaces are intact and smooth. 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 20 ml of yellow-brown concentrated 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 devoid of contents. The gastric wall is intact. The duodenum, loops of small bowel, and colon are unremarkable. The appendix is present and is unremarkable.

ADDITIONAL PROCEDURES

•	Documentary photographs are taken by	
•	The autopsy is conducted in the presence of Special Agent (6)(6)-1	of the
	(a)(3)-1	

- Specimens retained for toxicologic testing and/or DNA identification are: blood, liver, kidney, brain, bile, and psoas
- The dissected organs are forwarded with body
- Personal effects are released to the appropriate mortuary operations representatives of the 54th Quatermaster Company

MICROSCOPIC EXAMINATION

Selected portions of organs are retained in formalin, without preparation of histologic slides.

TOXICOLOGY

Toxicologic analysis of bile and liver was negative for ethanol (alcohol) and illicit substances.



OPINION

This Iraqi prisoner of war died of heat stroke. The clinical presentation of an axillary temperature of 102 degrees, dehydration, hypoxia, and obtundation, along with non-specific autopsy findings and the lack of significant natural disease or trauma are supportive of heat stroke. Temperatures in the area were reported to be grater than 110 degrees. No significant internal or external trauma was noted. No illicit substances or ethanol was detected.

The manner of death is accident.

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MAJ, MC, USA
Deputy Medical Examiner

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OTHER SIGNIFICAN Autres conditions sig	NT CONDITIONS ²						
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ACCIDENT Mort accidentel	NAME OF PATHOLOGIST Nom du pa						
SUICIDE Suicide							
HOMICIDE Homicide	(b)(6)-2		DATE Date 23 Oct 2003	AVIATION ACCIDENT Accider	ntá Avion: ☑ NO Non		
Date of deces (l'heu 22 Aug 2003	four, le jour, le mois, l'année)	Iraq	décès				
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² State conditions of ¹ Préciser la nature	ry or complication which caused beath, but not ontributing to the death, but not related to the d de la maladie, de la blessure ou de la complica	isease or condition caucing dea	ith. Bais non la manière de moudr-tal	le qu'un arrêt du coeur, etc	·		
- Preciser la condition	on qui a contribue a la mort, mais n'ayant aucu	n rapport avec la meladie ou à l	a condition qui a provoqué la mon 5-R(PAS), 26 SEP 75, WHICH ARI	t.			
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MEDCOM - 181