



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



AUTOPSY EXAMINATION REPORT

Name: GHADBAN, Talib E.

ISN: (b)(6)

Date of Birth: not known

Date of Death: (b)(6) 2006

Date of Autopsy: 15 JAN 2006 at 0930

Date of Report: 13 MAR 2006

Autopsy No.: (b)(6)

AFIP No.: (b)(6)

Rank: not applicable

Place of Death: Baghdad, Iraq

Place of Autopsy: Port Mortuary
 Dover AFB, DE

Circumstances of Death: Decedent admitted to the 344th Field Hospital on 31 Dec 05 complaining of being light-headed. On 02 Jan 06, the detainee is reported to have suffered a stroke with subsequent severe brain swelling. Distorted brain anatomy was seen in imaging studies (CT scan). Detainee was removed from respirator on 7 Jan 06, 0800, but feeding tube kept in place. Detainee pronounced at 1123 (b)(6) 06.

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

Identification: Presumptive identification by assigned ISN.

CAUSE OF DEATH: ATHEROSCLEROTIC CEREBRAL VASCULAR DISEASE

MANNER OF DEATH: NATURAL

AUTOPSY DIAGNOSES

I. Central Nervous System:

- A. Acute infarction of the right cerebral hemisphere in territory of the right middle cerebral artery; the histologic appearance is consistent with infarct that has been approximately one week or less in duration
- B. Subfalcine and transtentorial herniation
- C. Thrombus, organizing, right middle cerebral artery; atherosclerotic and arteriolosclerotic vascular disease

II. Cardiovascular Pathology:

- A. Cardiomegaly 400 grams, predicted normal 310 grams for 138 pound male
- B. Mildly thickened and redundant tricuspid valve
- C. Focal microscopic subepicardial scarring, of unknown significance
- D. Left anterior descending artery: 30% luminal narrowing by pathologic intimal thickening
- E. Right coronary artery: 30% luminal narrowing by pathologic intimal thickening
- F. There is focal microscopic subepicardial scarring, the significance of which is unknown

III. Nephrosclerosis with granular renal surface appearance, focal infarct of left kidney and bilateral cortical thinning

IV. Evidence of Medical Intervention

- A. Nasogastric feeding tube appropriately positioned
- B. Intravenous access site in left femoral crease
- C. Evidence of intravenous access sites in left and right antecubital fossae
- D. Foley urinary catheter
- E. EKG pads on right shoulder and left leg
- F. Treated decubitus ulcer on right back

V. Toxicology:

- A. Blood is negative for carboxyhemoglobin (carbon monoxide)
- B. Blood and urine are negative for ethanol
- C. Blood is negative for cyanide
- D. Urine is negative for screened drugs of abuse
- E. Urine is positive for lidocaine
- F. Urine is positive for lorazepam

EXTERNAL EXAMINATION

The clothed body is that of a normally developed, adequately nourished, 65-1/2-inches, 138 pounds, Caucasian male whose appearance is consistent with an age range extending from the mid-to-late sixth through seventh decades. Lividity is posterior and fixed, rigor is passing, and the temperature is that of the refrigeration unit.

The scalp is covered with medium length black-graying hair, distributed in a male balding pattern, and a black-gray mustache and stubble beard. There is no evidence of cranio-facial trauma. The corneae are opacified, the underlying irides are brown, and the pupils are round and equal. The sclerae are slightly injected. The external auditory canals are clear. The ears are unremarkable. The nares are patent and the lips are atraumatic. The nose and maxillae are palpably stable. The lower jaw is edentulous; numerous teeth of the upper jaw are missing and those present are markedly worn.

The neck is straight, and the trachea is midline and mobile. The chest is symmetric. A circumscribed circular area of erythema over the right epigastrium measures 1 inch in diameter. The abdomen is slightly protuberant but without mass or fluid wave. The genitalia are those of a normal circumcised adult male. The testes are descended and free of masses. Pubic hair is present in a normal distribution. There is a 1/2 inch resolving contusion on the right side of the upper back. There are two circumscribed areas of erythema on the right side of the mid-back. A 2-1/2 inch circumscribed area of hyperpigmentation is present at the superior aspect of the gluteal crease. The buttocks and anus are unremarkable.

The upper and lower extremities are symmetric and without clubbing. There is a resolving, 1/2 inch contusion on the volar surface of the right forearm. Circumscribed hyperpigmented areas are present on the dorsal surfaces of both right and left hands. The skin of the hands is mildly edematous and the finger nail beds are cyanotic. The skin of the legs, from the soles of the feet to the level of the knees is darker brown than the skin of the remaining body surface.

MEDICAL INTERVENTION

A nasogastric feeding tube is positioned through the left naris. There is evidence of previous intravascular access in the antecubital fossae bilaterally, as well as in the left femoral crease. A urinary catheter is positioned through the urethra. EKG pads are present on the right shoulder and left leg. A healing decubitus ulcer measuring 2-1/4 x 1 inch, with a gel dressing placed over it, is present on the left side of the back along the lateral scapular border. A plastic coated hospital identification bracelet printed with the decedent's name encircles the left wrist.

RADIOGRAPHS

A complete set of postmortem radiographs is obtained and demonstrates an absence of skeletal trauma and metallic foreign bodies

INTERNAL EXAMINATION

HEAD (See Neuropathology Consult):

The galeal and subgaleal soft tissues of the scalp are free of injury. There are no skull fractures, and the dura mater underlying the calvarium is intact as well. 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 bone are intact. The larynx is lined by intact white mucosa. The thyroid gland is symmetric and red-brown, without cystic or nodular change. The tip of the tongue is desiccated, but free of bite marks, hemorrhage, or other injuries. The bones of the cervical spine are intact and there is no evidence of soft tissue hemorrhage when layer-wise anterior and posterior dissections are extended to the spinal column.

BODY CAVITIES:

The ribs, sternum, and vertebral bodies are visibly and palpably intact. A 50 cc serous effusion is present in the left hemithorax, and a 400 cc serous effusion is present in the right hemithorax. The pericardial sac contains 20 cc of clear fluid. There is no excess fluid in the peritoneal cavity. The organs occupy their usual anatomic positions.

RESPIRATORY SYSTEM:

The right and left lungs weigh 690 and 560-grams, respectively. A few filmy adhesions extend from the visceral to the parietal surfaces of the right upper lung lobe. The external surfaces are deep red-purple. The pulmonary parenchyma is diffusely congested and edematous. There is a small amount of white froth in the distal trachea and bronchi. No other significant abnormality is noted.

CARDIOVASCULAR SYSTEM (See Cardiovascular Pathology Consult):

The aorta gives rise to three intact and patent arch vessels. No significant lesion is present in the thoracic or abdominal segments of the aorta. The renal and mesenteric vessels are unremarkable.

LIVER & BILIARY SYSTEM:

The 1570-gram liver has an intact, smooth capsule with prominent lobular patterning. The parenchyma is uniform tan-brown. No mass lesions or other abnormalities are seen. The gallbladder contains slightly less than 10 cc of green-black bile; there are no stones. The mucosal surface is green and velvety. The extrahepatic biliary tree is patent.

SPLEEN:

The 170-gram spleen has an intact, red-purple capsule. Several adhesions extend from the splenic surface to adjacent organs and to the abdominal wall. The parenchyma is uniformly deep purple with distinct Malpighian corpuscles. There is no evidence of a focal lesion.

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 170 and 180-grams, respectively. The external surfaces of the kidneys are finely granular. There is a faint wedge-shaped infarct in the superior pole of the left kidney. The cut surfaces, apart from the infarcted tissue, are red-tan and congested, with slight thinning of the 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 is empty, having been drained by the urinary catheter. The prostate gland is enlarged with yellow-tan parenchyma and palpable poorly defined nodules. 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 70-milliliters of partially digested food. The gastric wall is intact. The duodenum, loops of small bowel, and colon are unremarkable. The appendix is present.

MUSCULOSKELETAL AND INTEGUMENTARY SYSTEM

Muscle development is normal. No bone or joint abnormalities are noted. All areas of hyperpigmentation are examined by limited dissection; in no instance is there evidence of soft tissue hemorrhage. There is no evidence of injury to the back, wrists or the backs of the legs.

MICROSCOPIC EXAMINATION

Selected portions of organs are retained in formalin, with preparation of histologic slides as appropriate.

ADDITIONAL PROCEDURES/REMARKS

- Documentary photographs are taken by the OAFME staff photographers.
- Specimens submitted for toxicology and DNA analysis: vitreous, blood, gastric contents, bile, urine, brain, lung, liver, kidney, spleen, adipose, and psoas muscle.
- Full body radiographs are obtained and reflect injuries described above.
- Selected portions of organs are retained in formalin and histologic sections prepared as appropriate.
- The dissected organs are forwarded with the body.
- Personal effects are released to the appropriate mortuary operations representatives.

SUBSPECIALTY CONSULTATION: NEUROPATHOLOGY

(b)(6)

Neuropathology, reviewed in conference 3/3/2006

Brain, postmortem examination: Acute infarction of the right cerebral hemisphere in territory of the right middle cerebral artery. Subfalcine and transtentorial herniation. Thrombus, organizing, right middle cerebral artery. Atherosclerotic and arteriosclerotic vascular disease.

A 1436-gram formalin-fixed brain was received. The falx cerebri is unremarkable. The remainder of the dura is not available for examination. The leptomeninges are thin and translucent, with congested meningeal vessels; minimal fresh subarachnoid hemorrhage is noted at the right inferior temporal gyrus. Contusion is not identified. There is diffuse softening of the right cerebral hemisphere. The cerebral gyral pattern is normal, but there is diffuse flattening. The cranial nerves are unremarkable. The circle of Willis shows a normal pattern. The cerebral blood vessels are removed. No aneurysms are seen. There is thrombosis of the right middle cerebral artery starting near the origin and extending to the second major bifurcation. Both posterior cerebral arteries have focal atherosclerotic plaques. There is right-to-left subfalcine herniation. There is right uncal (transtentorial) herniation with necrosis; the left uncus is notched with no swelling. No tonsillar (transforaminal) herniation is seen. The brainstem and cerebellum have diffuse moderate swelling. Coronal sections of cerebrum show diffuse enlargement and softening of the right cerebral hemisphere (frontal, parietal, and temporal lobes), involving cortex, white matter, basal ganglia and thalamus. The cortico-medullary junction is preserved. A focal white matter hemorrhage is noted, right frontal lobe. Some focal hemorrhages involve the deep corpus callosum and superficial white matter of the right occipital lobe. The left cerebral hemisphere is compressed. Right-to-left transtentorial and transtentorial herniation is confirmed. The third ventricle and right lateral ventricle are collapsed and displaced; the left lateral ventricle is displaced. The midbrain is compressed and contains multiple hemorrhages; the cerebral aqueduct is slit-like. The substantia nigra and locus ceruleus are well pigmented. A small linear hemorrhage is noted in the right rostral pons. The cerebellum, medulla oblongata, and fourth ventricle are unremarkable. The lumbosacral spinal cord is not available for examination. A CD showing gross features of the brain is enclosed.

Summary of sections: 1. Left superior/middle frontal gyrus. 2. Left inferior parietal lobule. 3. Left superior/middle temporal gyrus. 4. Bilateral cingulate gyri (left inked black). 5. Left hippocampus. 6. Left caudate/putamen. 7. Left putamen/pallidum. 8. Bilateral thalamus/hypothalamus at mammillary bodies (left inked black). 9. Midbrain (left inked black). 10. Pons (left inked black). 11. Medulla (left inked black). 12. Left cerebellum/dentate nucleus. 13. Medullary-cervical junction (left inked black). 14. Right hippocampus. 15. Right medial occipital lobe. 16. Right frontal lobe white matter. 17. Right dorsal parietal lobe. 18. Right middle cerebral artery. 19. Bilateral posterior cerebral arteries (left inked black). All sections were processed in paraffin; slides were stained with H & E. This material was reviewed in conference by staff of the Department of Neuropathology and Ophthalmic Pathology.

Microscopic sections show extensive infarction of cerebral cortex, white matter, basal ganglia and thalamus within right middle cerebral artery territory, with acute neuronal injury, scattered macrophages, patchy neutrophils, coagulation necrosis, and vacuolation of neuropil/white matter. No significant subarachnoid hemorrhage is identified. No ventricular hemorrhage is seen. Scattered small intraparenchymal perivascular hemorrhages are present. The histologic appearance is consistent with infarct that has been approximately one week or less in duration. The right middle cerebral artery contains organizing thrombus with fibrin deposition and adherence to vessel wall. Cerebral vessels show atherosclerosis and arteriosclerosis. Parenchymal hemorrhages are noted in midbrain and rostral pons.

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SUBSPECIALTY CONSULTATION: CARDIOVASCULAR PATHOLOGY

FINAL DIAGNOSIS

DIAGNOSIS: (b)(6) **Heart, post mortem examination: Cardiomegaly**

History: Male detainee (date of birth unknown) admitted to 344th Field Hospital 12/31/05 with signs and symptoms of stroke; subject died (b)(6) 06.

Heart: 400 grams, predicted normal 310 grams for 138 pound male; normal epicardial fat; closed foramen ovale; left ventricular cavity diameter 30 mm, left ventricular free wall thickness 13 mm, ventricular septum thickness 15 mm, right ventricle thickness 4 mm without gross scars or abnormal fat infiltrates; mildly thickened and redundant tricuspid valve, other valves grossly unremarkable; endocardium grossly unremarkable; no gross myocardial fibrosis or necrosis; histologic sections show focal microscopic subepicardial scarring; there are no inflammatory cell infiltrates, myocyte necrosis, or cardiomyopathic changes.

Coronary arteries: Normal ostia, right dominance; focally mild coronary atherosclerosis
Left anterior descending artery: 30% luminal narrowing by pathologic intimal thickening
Right coronary artery: 30% luminal narrowing by pathologic intimal thickening

Comment: There is focal microscopic subepicardial scarring, the significance of which is unknown.

Thank you for sending this case for our review. Case seen in conference.

(b)(6)

Blocks made: 7
Slides made: 7 H&E, 6 Movat

Staff pathologist

OPINION

This detainee died of cerebral vascular disease, specifically, of thrombotic occlusion of the right middle cerebral artery and ischemic changes of the central nervous system structures it supplies. Cardiomegaly and nephrosclerotic changes support the interpretation that the decedent had hypertensive disease of long standing.

Despite extensive and detailed examination, there is no evidence of trauma or injury. The identification of lidocaine and a benzodiazepine in the urine are consistent with the detainees status as a hospitalized patient with cardiac instability and possibly seizures.

The manner of death is natural.

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(b)(6) Medical Examiner

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(b)(6) Medical Examiner

CERTIFICATE OF DEATH (OVERSEAS) Acte de décès (D'Outre-Mer)			
NAME OF DECEASED (Last, First, Middle) Nom du décédé (Nom et prénoms) BTB Ghadban, Talib, E		GRADE Grade	BRANCH OF SERVICE Arme Not applicable - oth
ORGANIZATION Organisation		NATION (e.g. United States) Pays Iraq	SOCIAL SECURITY NUMBER Numéro de l'Assurance Social (b)(6)
RACE Race		MARITAL STATUS État CIV	RELIGION Culte
CAUCASOID Caucasique		SINGLE Célibataire	PROTESTANT Protestant
NEGROID Négride		MARRIED Marié	CATHOLIC Catholique
X OTHER (Specify) Autre (Spécifier)		WIDOWED Veuf	JEWISH Juif
NAME OF NEXT OF KIN Nom du plus proche parent		RELATIONSHIP TO DECEASED Parenté du décédé avec le sus	
STREET ADDRESS Domicile à (Rue)		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)			INTERVAL BETWEEN ONSET AND DEATH Intervalle entre l'attaque et le décès
DISEASE OR CONDITION DIRECTLY LEADING TO DEATH Maladie ou condition directement responsable de la mort.			Pending
ANTECEDENT CAUSES 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 de décès	AUTOPSY PERFORMED Autopsie effectuée		CIRCUMSTANCES SURROUNDING DEATH DUE TO EXTERNAL CAUSES Circonstances de la mort suscitées par des causes extérieures
NATURAL Mort naturelle	MAJOR FINDINGS OF AUTOPSY Conclusions principales de l'autopsie		Mode of Death : Pending
ACCIDENT Mort accidentelle			
SUICIDE Suicide	(b)(6)		
HOMICIDE Homicide	(b)(6)		
DATE OF DEATH (day, month, year) Date de décès	PLACE OF DEATH Lieu de décès		AVIATION ACCIDENT Accident à Avion
(b)(6)	2006		15 January 2006 <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
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 dé funt et je conclus 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 sanitaire		TITLE OR DEGREE Titre ou diplôme	
(b)(6)		Medical Examiner	
GRADE Grade		INSTALLATION OR ADDRESS Installation ou adresse	
(b)(6)		Dover AFB, Dover DE	
DATE Date			
18 JAN 06		(b)(6)	
<small>1. State disease, injury or complication which caused death. 2. State conditions contributing to the death, but not related to it. 3. Precise the nature of the disease, of the lesions or of the cause of death, such as "an attack of the heart, etc." 4. Precise the condition which contributed to the death, but not related to it.</small>			

DD FORM 1 APR 77 2064

REPLACES DA FORM 3565, 1 JAN 72 AND DA FORM 3565-R(PAS), 28 SEP 73, WHICH ARE OBSOLETE.

MEDCOM 0640