DEPARTMENT OF THE ARMY
ARMED FORCES MEDICAL EXAMINER SYSTEM
1413 RESEARCH BLVD, BLDG 102
ROCKVILLE, MD 20850

AMENDED*
FINAL AUTOPSY REPORT

Name: GUL, Awal
ID No: ISN-782
Date of Birth: 1962 (48 years)
Date of Death: 01 FEB 2011 (2339 hours)
Date of Autopsy: 03 FEB 2011, 0700 hours
Date of Report: 23 FEB 2011
Date of Amended Report: 04 MAR 2011

Autopsy No.: (b)(7)(F)
AFIP No.: (b)(7)(F)
Rank: Civilian (Detainee)
Place of Death: Guantanamo Bay
Place of Autopsy: US Naval Hospital
Guantanamo Bay, Cuba

Circumstances of Death:
Mr. Awal Gul, a 48 year-old detainee, collapsed in the shower room after 2230 hours. Earlier he was exercising on the treadmill, and complained of being tired after 5 minutes. He went to shower where he collapsed. He was noted with his back to the shower wall foaming around the mouth. He was carried by other detainees to the cell block gate. Code Yellow was called at 2238 and CPR was started immediately. He was noted without spontaneous respiration or pulse and Code blue was called. He was transported to the US Naval Hospital Guantanamo Bay (USNH GB) in asystole. He was pronounced deceased at 2339 hours, on 2 FEB 2011.
Mr. Gul had a medical history of obesity and poorly controlled hypertension. He had complained of chest pain on 28 Jan 2011. Laboratory tests on the 28th revealed no evidence of myocardial ischemia or significant abnormalities; see "Review of Medical Records".

Authorization for Autopsy: Office of the Armed Forces Medical Examiner, IAW Title 10 US Code 1471

Identification:
Mr. Awal Gul, ISN 782, is identified by visual recognition and detainee's identification tags. He is positively identified by fingerprints comparison by the FBI, Dover AFB on 08 FEB 2011. A tissue sample is collected for DNA identification.

Cause of Death:
Atherosclerotic Cardiovascular Disease

Manner of Death:
Natural

MEDICAL RECORDS REVIEW

The available medical health records are screened by the prosector and the observing civilian medical examiner prior to the autopsy; see "Postmortem Examination".

Review of the medical records reveals the following in the more recent entries:
Mr. Gul was in an overall good health. He had past medical history of hypertension and non-compliance with treatment, hypercholesterolemia, and obesity (BMI over 30.0). He had also history of appendectomy in 10/2002, bilateral knee osteoarthritis, and latent TB (positive PPD in Oct 2002; INH treatment was completed).

On 01 DEC 2009, he complained of upper chest pain for two weeks, with no signs of distress, only when he eating or drinking. He believed that this pain is due to acid reflux and requested diet recommendation.

On 28 JAN 2011, Mr. Gul was transported to the medical area complaining of a localized, non-radiating, squeezing chest pain in the center of the chest. There were no other associated symptoms or signs. EKG showed a normal sinus rhythm, minimal criteria for left ventricular hypertrophy and no ST elevation/depression, wide QRS or arrhythmias. Laboratory tests for Creatine Kinase (CK-MB) and Cardiac Troponin1 (cTn1) were within normal limits. The differential diagnosis of his chest pain was atypical chest pain vs. Gastro-esophageal Reflux Disease (GERD). He was to be seen again in a week. He died on 01 FEB 2011 at 2339 hours.

POSTMORTEM EXAMINATION

The postmortem examination (b)(7)(F) on Awal Gul is performed at the US Naval Hospital Guantanamo Bay (USNH GB), Cuba on 03 FEB 2011, starting at approximately 0700 hours. Full body CT-Scan is obtained at the USNH GB. Photographs are obtained by (b)(6) Assisting in the autopsy procedure is (b)(6) Attending the autopsy as medicolegal observers are (b)(6) (b)(6) and Special Agents (b)(7)(C) (b)(7)(C)

EXTERNAL EXAMINATION

The body is that of a well-developed, unclad obese male covered by multiple white sheets. Hands and feet were tied together with white ribbons with attached identification tags with his name and ISN number. No clothing or personal effects accompanies the remains.

The body measures 68" and weighs an approximately 220 lbs, with no evidence of external trauma or abnormalities. 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. Body temperature is cold due to refrigeration.

The scalp hair is black-gray with prominent male baldness. The facial hair consists of black mustache and long beard. The eyes are unremarkable. The irides are brown. The corneae are slightly cloudy. The conjunctivae appear injected with no petechiae. The sclerae are white with a small area of hemorrhage on the right side. The external auditory canals, external nares and oral cavity are free of foreign material and abnormal secretions. The nasal skeleton is palpably intact. The tongue is unremarkable. The lips are without evident injury. The frenula is unremarkable. The teeth are natural and unremarkable. Examination of the neck reveals no evidence of trauma or abnormal mobility.

The chest is hairy and unremarkable. No injury of the ribs or sternum is evident externally. The abdomen is markedly protuberant, but otherwise unremarkable with no evidence of trauma. A surgical scar is noted on the right lower abdominal quadrant, consistent with a remote appendectomy. No other scars are present. The posterior torso is unremarkable with no evidence of trauma or abnormality. The external genitalia are those of a normal adult circumcised male with unremarkable descended testes. The anus is unremarkable.

The upper and right lower extremities are unremarkable with no evidence of recent trauma. Contusions of unknown etiology are noted on the distal left leg. The hands are unremarkable with no trauma. The finger nails are clean and unremarkable. No tattoos, other major surgical scars or identifying marks are noted.

EVIDENCE OF INJURY

Examination of the head reveals no evidence of external or intracranial trauma. A small area of subgaleal hemorrhage is noted on the back of the head with no overlying trauma of the scalp or underlying skull fracture; see "Opinion". A small area of hemorrhage is noted in the tongue; see "Opinion".

Examination of the neck reveals no evidence of external trauma or ligature marks. Examination of the strap muscles reveals small focal area of hemorrhage on the left sternocleidomastoid muscle; see "opinion". The hyoid bone and thyroid cartilage are intact. Posterior dissection of the neck reveals no evidence of muscular or spinal trauma.

Examination of the anterior chest wall reveals a small area of superficial hemorrhage of the left serratus anterior muscle overlying a non-displaced fracture of rib # 3, antero-laterally. Examination of the chest cage reveals fractured left ribs # 3, 4, 6 and 7 anteriorly, at the strno-chondral junction. The fractured ribs are associated with minimal hemorrhage; see "Opinion". External and internal examination of the chest, abdomen and genitalia reveals no other evidence of trauma.

Examination of the upper and right lower extremities reveals no evidence of trauma. Examination of the left leg reveals two contusions on the anterior and medial distal leg, well above the ankle.

Serial longitudinal incisions on the back and extremities reveal no evidence of recent or remote injuries; photographed for documentation.

CLOTHING & PERSONAL EFFECTS

None received.

MEDICAL INTERVENTION

An endotracheal tube and a neck guard are noted. CT-scan and postmortem examination reveals the endotracheal tube inserted in the esophagus; see "Opinion".

INTERNAL EXAMINATION

BODY CAVITIES:
Examination of the intact pericardial sac reveals 600 cc of fluid and clotted blood; see "Cardiovascular System". No abnormal collection of fluid is present in the chest or abdominal cavities. The amount of intra-abdominal fat is markedly increased. Mild adhesions are noted of the cecum to the abdominal wall, consistent with the remote appendectomy. All body organs are present in the normal anatomical position. The subcutaneous fat layer of the abdominal wall is increased, measuring 2" thick at the umbilicus. There is no internal evidence of blunt or sharp force injury to the thoraco-abdominal region.

HEAD: (CENTRAL NERVOUS SYSTEM)
The dura mater and falx cerebri are intact. There is no epidural, subdural or subarachnoid hemorrhage present. The leptomeninges are thin and delicate. 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 reveal no lesions. Transverse sections through the brain stem and cerebellum are unremarkable. The brain weighs 1300 grams. Serial sectioning of the brain reveals unremarkable parenchyma and no evidence of trauma.

NECK:
See "Evidence of Injury".
Examination of the soft tissues of the neck including strap muscles, thyroid gland and large vessels are unremarkable and without traumatic abnormalities. The hyoid bone and thyroid cartilage are intact.

CARDIOVASCULAR SYSTEM:
The pericardial surfaces are smooth, glistening and unremarkable; the pericardial sac is distended with 600 CC of fluid and clotted blood.

The coronary arteries arise normally, follow the usual distribution and are widely patent with no atherosclerotic changes, except for the left anterior descending artery (LAD). Serial sections through the LAD reveal marked narrowing of its lumen, pin point shortly after its take off the left main coronary artery. Focal calcifications are noted.

The heart weighs 440 grams and is mildly enlarged. Examination of the heart reveals a perforation of the anterior left ventricular wall, near the base and the anterior interventricular septum. The perforation measures 1.0 cm in length on the epicardial surface and 1 ½ x 0.5 cm on the endocardial surface; photographed for documentation. The surrounding myocardium is dark red-brown, firm and grossly unremarkable. The valves exhibit the usual size, texture and position relationship and are unremarkable.

The aorta and its major branches arise normally, follow the usual course and are widely patent. The aorta reveals fatty streaks with no apparent calcification and no ulceration. The major arteries are free of significant atherosclerosis and other abnormality. The venae cavae and their major tributaries return to the heart in the usual distribution and are free of thrombi.

RESPIRATORY SYSTEM:
The upper airway is clear of debris and foreign material; the mucosal surfaces are smooth, yellow-tan and unremarkable. The pleural surfaces are smooth with no adhesions present. The pulmonary parenchyma is red-purple and exudes a moderate amount of bloody fluid with no focal lesions identified. The pulmonary arteries are normally developed, patent and without thrombus or embolus. The right and left lung weighs 580 grams and 490 grams, respectively.

LIVER & BILIARY SYSTEM:
The hepatic capsule is smooth, glistening and intact, covering dark red-brown, moderately congested parenchyma with no focal lesions noted. The gallbladder contains green-brown, mucoid bile; the mucosa is velvety and unremarkable. The extrahepatic biliary tree is patent, without evidence of calculi. The liver weighs 2300 grams.

ALIMENTARY TRACT:
See "Medical Intervention".
The esophagus is lined by gray-white, smooth mucosa. The stomach is distended with air and 500 cc of dark green partially digested food, a sample of which is submitted for toxicological testing. The stomach reveals no evidence of ulceration. The small and large bowels are unremarkable. The pancreas has a normal pink-tan lobulated appearance and the ducts are patent. The appendix is absent (s/p appendectomy).

GENITOURINARY SYSTEM:
The renal capsules are smooth and thin, semi-transparent and strip with ease from the underlying finely granular 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 is unremarkable and contains clear slightly cloudy yellow urine. The right and left kidneys weigh 180 grams and 160 grams, respectively.

The external genitalia are those of a circumcised adult male with bilaterally descended unremarkable testes.

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 180 grams.

ENDOCRINE SYSTEM:
The pituitary, thyroid and right adrenal glands are unremarkable. A small well circumscribed 0.5 cm adenoma is noted in the left adrenal gland.

MUSCULOSKELETAL SYSTEM:
See "Evidence of Injury".
Muscle development is normal. No non-traumatic bone or joint abnormalities are noted on gross examination.

EVIDENCE

None collected.

RADIOLOGICAL STUDIES

Radiographs reveal no recent skeletal fractures or abnormalities. Verbal preliminary report is obtained. The CT-Scan reveals distended pericardial sac and endotracheal tube inserted into the esophagus.

MICROSCOPIC EXAMINATION

Representative sections of the major organs are retained with preparation of histological slides.

Slides # 1-6 Heart:

1. Perforation site: Evident perforation site with surrounding hemorrhage, fibrin deposition and surrounding area of infarction with prominent fibroblastic

proliferation consistent with over 7 days. The prominence of fibroblastic proliferation suggests 1-2 weeks of age; see "Opinion".

2. Section close to perforation site: Multiple foci of prominent fibroblastic proliferation consistent.
3. Section 2 cm distal to perforation site: Multiple foci of prominent fibroblastic proliferation consistent. Mild myocyte hypertrophic changes are noted.
4. Left Ventricle: Mild myocyte hypertrophic changes and perivascular fibrosis are noted.
5. Septum: Mild myocyte hypertrophic changes and perivascular fibrosis are noted.
6. Right Ventricle: Fatty infiltration, mild.

Slide # 7: Left Anterior Descending Coronary Artery: Atherosclerotic changes of the LAD coronary artery with over 75% focal narrowing of the lumen and focal calcification.
Slide # 8: Lungs: Postmortem changes and dark pigment-laden macrophages.
Slide # 9: Spleen & Pancreas: Postmortem changes. No significant pathological changes.
Slide # 10: Thyroid gland: No significant pathological changes.
Slide # 11: Liver: No significant pathological changes.
Slide # 12: Kidneys: No significant pathological changes.
Slide # 13: Left Adrenal gland: Benign adenoma.
Slide # 14: Right Adrenal gland: No significant pathological changes.
Slide # 15: Prostate gland: No significant pathological changes.
Slide # 16: Testes: No significant pathological changes.
Slide # 17-20: Brain: No significant pathological changes.

TOXICOLOGY

Carbon Monoxide:

- Carboxyhemoglobin saturation in blood is less than 1% (1-3% is expected in non-smokers, 3010% is expected in smokers and 0ver 10% is considered elevated).

Volatiles (Blood and Vitreous fluid):

- No ethanol was detected.

Cyanide:

- There was no cyanide detected.

Screened medication and drugs of abuse (Urine):

- None were found

ADDITIONAL PROCEDURES

1. Documentary photographs are taken by (b)(6)
2. Full body CT-Scan is obtained by Department of Radiology, Naval Hospital Guantanamo Bay, Cuba.
3. Specimens retained for toxicological and/or DNA identification are: Blood (peripheral and from the hemopericardium), vitreous fluid, bile, urine, stomach contents, and tissue samples from liver, lung, kidney, spleen, brain, psoas, heart muscle and adipose tissue.

4. Vitreous fluid is submitted for electrolytes testing.
5. Representative sections of organs are retained in formalin with preparation of histological slides. The histological slides of the heart and coronary arteries are submitted for Cardiovascular Pathology Consultation; see "Opinion".
6. No Evidence recovered.
7. Special Agents (b)(7)(C) attended the autopsy.
8. (b)(6) attended the autopsy as an independent observer.

FINAL AUTOPSY DIAGNOSIS

I. Atherosclerotic Cardiovascular Disease:

A. Ruptured recent myocardial infarction (age over 7 days); No evidence of myocardial scaring.
B. Cardiac tamponade, 600 cc of fluid and clotted blood.
C. Fatty infiltration of the right ventricle
D. Marked atherosclerotic narrowing, pin point, of the LAD with focal calcification (over 75% stenosis on microscopic examination).
E. Finely granular renal capsules consistent with history of hypertension.
F. Atheromatous changes of the aorta.

II. Other Findings:

A. Left adrenal adenoma.

III. Evidence of Injury:

A. Focal subgaleal hemorrhage.
B. Multiple left rib fractures and associated minimal muscle hemorrhage.
C. Superficial hemorrhage of the left sternocleidomastoid and left anterior serratus anterior.
D. Two contusions on the distal left leg.

III. Toxicology:

A. Volatiles: No ethanol was detected.
B. Screened drugs of abuse and medications: None were found.
C. Carbon Monoxide and Cyanide: Not detected.
D. Electrolytes of the Vitreous Fluid: No findings of clinical significance.

OPINION

Mr. Awal Gul, a 48 year-old detainee died from atherosclerotic cardiovascular disease. The heart reveals a ruptured myocardial infarction of the anterior wall of the left ventricle, resulting in 600 cc cardiac tamponade. Other atherosclerotic changes are: a severely stenosed LAD (over 75% on microscopic examination) with focal calcification,

atheromatus changes of the abdominal aorta, and finely granular renal capsules consistent with a poorly controlled hypertension. The heart reveals mild hypertrophic changes. Microscopic examination of sections from the heart reveals myocardial ischemic changes consistent with over 7 days of age. Histological sections of the heart and coronary artery are submitted for Cardiovascular Pathology Consultation for more definitive determination of the age of the myocardial infarction. After review, the age of the cardiac lesions is consistent with 1-2 weeks old. No evidence of remote myocardial infarctions.

The subgaleal hemorrhage, hemorrhage of the left sternocleidomastoid and multiple left rib fractures (with minimal surrounding hemorrhage) is consistent with resuscitation efforts and intubation. The esophageal intubation is non-contributory to the cause and manner of death.

Mr. Gul was obese (BMI over 30.0), had a history of hypertension with poor compliance, hypercholesterolemia, and obesity; all are indicators of potential myocardial events. He complained of localized squeezing chest pain on the 28 JAN. The chest pain had no other associated signs or symptoms. The chest pain was reportedly associated with eating raising the possibility of GERD. CK-MB and cNtI testing were negative. Mr. Gul was to have a follow up within a week. He was exercising on a treadmill when he did not feel well, stopped his exercise, and went to shower where he collapsed.

Microscopic examination of sections from the heart reveals myocardial ischemic changes consistent with over 7 days of age. The prominent fibroblastic proliferation noted is usually associated with myocardial infarctions of 1-2 weeks age. Sections of the LAD reveal over 75% stenosis. Sections from the lungs, liver, spleen and kidney reveal no significant pathological changes. A benign adrenal adenoma is noted in the left adrenal gland.

Toxicological tests are negative for carbon monoxide, cyanide, ethanol and screened medications and illicit drugs of abuse. Testing of the vitreous fluid for electrolytes imbalance reveals no clinically significant changes (report is attached).

Manner of death is "Natural".

(b)(6)

(b)(6) (b)(6)

*** Report is amended to reflect the following:**

1. Date of Death is 01 FEB at 2339 hours and not 02 FEB 2011.
2. History of chest pain is on the 28 of JAN only. No chest pain is reported on the 21st.
3. Heart sections are reviewed. The age of the myocardial lesion is 1-2 weeks.

CERTIFICATION OF DEATH (OVERSEAS)
Acte de deces (D Outre-mer)

NAME OF DECEASED (Last, First, Middle) Nom du decede (Nom et prenoms)	GRADE Grade	BRANCH OF SERVICE Arme	SOCIAL SECURITY NUMBER Numero de l'Assurance Sociale
GUL, AWAL			782--

ORGANIZATION (Organization)	NATION (e.g. United States)	DATE OF BIRTH	SEX Sexe
U.S. NAVAL STATION GUANTANAMO BAY, CUBA	Pays UNITED STATES	Date de naissance 1 July 1962	☒ MALE Masculine ☐ FEMALE Feminin

RACE Race		MARITAL STATUS Etat Civil			RELIGION Culte			
	CAUCASOID Caucasique		SINGLE Celibataire		DIVORCED Divorce		PROTESTANT Protestant	X OTHER (Specify) Autre (Specifier)
	NEGROID Negroide		MARRIED Marie		SEPARATED Separe		CATHOLIC Catholique	
X	OTHER (specify) Autre (Specifier)		WIDOWED Veuf				JEWISH Juif	

NAME OF NEXT OF KIN Nom du plus proche parent	RELATIONSHIP TO DECEASED Parente du decede avec le susdit
STREET ADDRESS Domicile a (Rue)	CITY OR TOWN AND STATE (Include ZIP Code) Ville (Code postal compris)

MEDICAL STATEMENT Declaration medicale

CAUSE OF DEATH (Enter only one cause per line) Cause du deced (N'indiquer qu'une cause par ligne)		INTERVAL BETWEEN ONSET AND DEATH Intervalle entre l'attaque et le decez
DISEASE OR CONDITION LEADING TO DEATH 1 Maladie ou condition directement responsible de la mort 1	ATHEROSCLEROTIC CARDIOVASCULAR DISEASE	
ANTECEDENT CAUSES — MORBID CONDITION, IF ANY, LEADING TO PRIMARY CAUSE. Condition morbide, s'il y a lieu, menany a la cause primaire		
Symptomes precurseurs de la mort — UNDERLYING CAUSE, IF ANY, GIVING RISE TO PRIMARY CAUSE Raison fondamentale, s'il y a lieu, ayant suscite la cause primaire		
OTHER SIGNIFICANT CONDITIONS 2 Autres conditions significatives 2		

MODE OF DEATH condition de deces	AUTOPSY PERFOMED Autopsie effectuee ☒ YES Oui ☐ NO Non	CIRCUMSTANCES SURROUNDING DEATH DUE TO EXTERNAL CAUSES Circonstances de la mort suscitees par des causes exterieures
X NATURAL Mort naturelle	MAJOR FINDINGS OF AUTOPSY Conclusions principales de l'autopsie: Atherosclerotic Cardiovascular Disease	
ACCIDENT Mort accidentelle		
SUICIDE Suicide	NAME OF PATHOLOGIST Nom du pathologiste (b)(6)	
HOMICIDE Homicide	SIGNATURE (b)(6) DATE Date 03 Feb 2011	AVIATION ACCIDENT Accident a Avion ☐ YES Oui ☒ NO Non

DATE OF DEATH (Hour, day, month, year) Date de deces (l'heure, le jour, le mois, l'annee)	PLACE OF DEATH Lieu de deces
23:39, 01 Feb 2011	U.S. NAVAL HOSPITAL GUANTANAMO BAY, CUBA

I HAVE VIEWED THE REMAINS OF THE DECEASED AND DEATH OCCURRED AT THE TIME INDICATED AND FROM THE CAUSE AS STATED ABOVE.
J'ai examine les restes mortels du de funt et je conclus que le deces est survenu a l'heure indiquee et a la suite des causes enumerees ci-dessus.

NAME OF MEDICAL OFFICER Nom du medicin militaire ou du medicin sanitaire	TITLE OR DEGREE Titre ou diplome
(b)(6)	MEDICAL DOCTOR

GRADE Grade	INSTALLATION OR ADDRESS Installation ou adresse
(b)(6)	U.S. NAVAL HOSPITAL GUANTANAMO BAY, CUBA
DATE Date	SIGNATURE (b)(6)

1 State disease, injury or complication which
2 State conditions contributing to the death
1 Preciser la nature de la, maladie, de la blessure ou de la complication qui a contribue a la mort, mais non la maniere de mourir, telle qu'un arret du coeur, ect.
2 Preciser la condition qui a contribue a la mort, mais n'ayant aucun rapport avec la maladie ou a la condition qui a provoque la mort.

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DISPOSITION OF REMAINS

NAME OF MORTICIAN PREPARING REMAINS	GRADE	LICENSE NUMBER AND STATE	OTHER
(b)(6)	(b)(6)	(b)(6)	

INSTALLATION OR ADDRESS	DATE	SIGNATURE
U.S. NAVAL HOSPITAL GUANTANAMO BAY, CUBA	3 FEB 2011	(b)(6)

NAME OF CEMETERY OR CREMATORY	LOCATION OF CEMETERY OR CREMATORY

TYPE OF DISPOSITION	DATE OF DISPOSITION
BURIAL____ CREMATION____ REMOVAL (Specify) _____	

REGISTRATION OF VITAL STATISTICS

REGISTRATION (Town and Country)	DATE REGISTERED	FILE NAME	
		STATE	OTHER

NAME OF FUNERAL DIRECTOR	ADDRESS

SIGNATURE OF AUTHORIZED INDIVIDUAL

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