RIVERO, Eduardo  
Case No. 2016-02910  
September 25, 2016...12:30PM

CAUSE OF DEATH:

Boat Crash

Kenneth Hutchins, M.D.  
Associate Medical Examiner

NOTE: The cause of death is based on the totality of the investigative data to date, which may not be included in the autopsy or external examination protocol.
### TOXICOLOGY REPORT

**ME Case #** 2016-02910  
**Decedents Name:** RIVERO, Eduardo  
**Date:** September 30, 2016

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TOXICOLOGY REPORT

ME Case # 2016-02910
Decedents Name: RIVERO, Eduardo

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Reviewed By:

Kenneth Hutchins, M.D.
Associate Medical Examiner
September 30, 2016   6:48 am

Diane M. Boland Ph.D, F-ABFT
Toxicology Division Director
September 29, 2016   11:24 am

QC by:   LZ

Req #:   27261
ATTENDEES:

FORENSIC TECHNICIAN:  Andrew Okehi
PHOTOGRAPHER:  Belmarie Lyons

EXTERNAL EXAMINATION:

The body is a well-developed, well-nourished, 182 pound, 5 foot 10 inch white man who appears compatible with the reported age of 25 years. The body is refrigerated, well preserved, and not embalmed. The body mass index (BMI) is 26 kilograms per meter squared. A green plastic bracelet around the left ankle has the inscription “260396.”

The head has brown-blond scalp hair which is shorter on the sides. The face is covered by a mustache and beard. The irides are green. The corneas are clear. The conjunctivae are pale and have no petechiae. The sclerae are white. The external auditory canals, external nares, and oral cavity are free of lesions and foreign material. The nasal bones are intact. The teeth are natural. The tongue is free of contusion or laceration. There is no buccal mucosal injury.

The neck is symmetrical without scars, masses, or injury.

The chest is symmetrical and the nipples and breasts are free of abnormality and palpable masses.

The abdomen is flat. The posterior torso is without note.

The fingernails are intact. There are no fractures, lacerations, or deformities of the extremities. The joints are not deformed.

There is a tattoo of a radio on the right chest. A sleeve tattoo of angels, a snake, a compass and "life is short heaven is forever" is on the right arm. A colorful tattoo of building's, palm trees, MIA and a star with buildings, is on the upper left arm. A tattoo of faith is on the left wrist. A tattoo of "never back down" is on the lower left leg. A tattoo of MJCHY (?) is on the back of the right leg.

The external genitalia are those of an adult uncircumcised male. The external anus has no abnormalities.

EVIDENCE OF INJURY:

A 6 x 6 centimeter area of punctate to linear, red-pink abrasions and superficial lacerations, ranging from 0.5 to 3 centimeters in greatest dimension is on the mid to right forehead. A 3 x 0.5 centimeter obliquely oriented, full thickness laceration is on the left forehead associated with a superior 1.5 centimeter curvilinear red-pink abrasion. A 4 x 1.3 centimeter red-pink abrasion is on the bridge and tip of the nose. A 3.5 centimeter red-pink linear abrasion-laceration is on the mid-chin. A
AUTOPSY PROTOCOL

2 centimeter laceration is on the undersurface of the chin. There is a slight, blue, left periorbital ecchymosis. Small red-pink abrasions are below the left eye.

There is subgaleal hematoma associated with the head injuries. A 3.5 centimeter linear non-displaced fracture is in the left anterior cranial fossa of the frontal bone. A 4.5 centimeter non-displaced linear fracture is in the left middle cranial fossa of the temporal bone. Small areas of subarachnoid hemorrhage are on the right cerebellum, inferior left temporal lobe and inferior frontal lobes of brain. There are punctate hemorrhagic areas in the white matter of the left temporal lobe of the brain.

A 4 x 3 centimeter area of linear, red-pink abrasions is on the right chest at the axillary area. A 2 x 0.1 centimeter red-brown abrasion is on the mid-upper left chest. Two red-pink abrasions are on the anterior left chest medial to the nipple, and are 2 x 0.3 and 1.5 x 0.3 centimeters. A 3 x 1.5 centimeter slight red-pink abrasion is on the lower left chest. A 6.5 x 2.5 centimeter purple-blue contusion-abrasion is on the mid right back. A 20 x 10 centimeter L shaped red-brown abrasion is on the mid to lower left back above the buttock.

There are 3 linear red-brown abrasions on the dorsal right hand and wrist ranging from 3 to 5 centimeters and located proximal to the forefinger and thumb. Linear red-pink abrasions are on the medial upper right arm. A 5 x 1.5 red-blue contusion is on the anterior right leg.

Copious amounts of pink-red foam exudes from the mouth and nostrils. There is copious foamy fluid within the bronchi and lungs. The lungs are heavy and edematous. There is less than 1 milliliter of red-pink fluid in the sphenoid sinus. Red watery fluid is in the stomach.

INTERNAL EXAMINATION:

There are no abnormalities of the anterior chest and abdominal walls. The ribs, sternum, and clavicles are intact. There are no abnormal collections of fluid or adhesions within the body cavities. The mesothelial surfaces are smooth and glistening. The diaphragm is not elevated. All body organs are in the normal anatomical position. The subcutaneous fat layer of the abdominal wall is up to 2.5 centimeters thick.

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

The 340 gram heart has a smooth and glistening pericardial surface. The pericardial sac is free of significant fluid or adhesions. The epicardium is shiny with a moderate amount of epicardial fat. The coronary arteries arise normally and are right dominant. There is no evidence of atherosclerotic change within any of the coronary arteries. The chambers and valves exhibit the usual position relationship. The cusps of the aortic and pulmonic valves and leaflets of the mitral and tricuspid valves are thin pliable and translucent. There are no abnormalities of the chordae tendineae or papillary muscles. The myocardium is brown-red and firm. The left and right ventricles are 1.2 and 0.4 centimeters respectively. The endocardium is thin and glistening. The atrial and ventricular septa
are intact. The atria are not dilated and are free of thrombi. The aorta and its major branches arise normally, follow the usual course, and are widely patent with no atherosclerotic change of its thoraco-abdominal portions. The vena cava and its major tributaries return to the heart in the usual distribution and are free of thrombi.

The upper airway, trachea, and mainstem bronchi are clear of debris and foreign material but exudes copious amounts of white foam. The mucosal surfaces are smooth, yellow-tan, and unremarkable. The right and left lungs are 920 grams and 970 grams, respectively. The lungs have normal lobar configurations. The pleural surfaces are smooth and glistening. The pulmonary parenchyma is red-purple and exudes copious amounts of frothy fluid. The lungs have no focal lesions. The patent, normally developed pulmonary arteries have no thrombi or emboli. The bronchial and mediastinal lymph nodes are not enlarged.

The tongue is without injury or abnormality. The esophagus is lined by gray-white smooth mucosa. There is no evidence of dilation, stenosis, or varices. The stomach is normal in size and shape. The gastric mucosa is free of ulcerations and is arranged in the usual rugal folds. The stomach contains approximately 400 milliliters of red, watery fluid. The pylorus is not deformed and has a normal circumference. The small intestine is normal in length, configuration, and diameter and has a smooth, shiny serosal surface. The mesentery has a normal insertion, the vessels are patent, and the lymph nodes are not enlarged. The large intestine has a smooth shiny serosal surface and no palpable masses or obstructions. The appendix is normal.

The 1840 gram liver has a smooth, glistening, intact capsule covering dark brown congested parenchyma with no focal lesions. The lobular pattern is preserved. The extra and intra hepatic vessels are patent. The gallbladder contains 10 milliliters of yellow-green mucoid bile and no calculi. The mucosa is velvety. The cystic, common and hepatic bile ducts are free of calculi.

The pancreas is pink-tan and normal in size. The lobular architecture is intact. The duct is patent.

The spleen is 210 grams and has a smooth, intact capsule covering red-purple, firm parenchyma with inconspicuous lymphoid follicles. The bone marrow of the ribs has a soft consistency and is dark red. The regional lymph nodes of the neck, chest, abdomen, and pelvis are unremarkable.

The pituitary gland is not enlarged. The thyroid gland has a normal size and shape. The parenchymal surface is tan-brown. The adrenal glands have a yellow cortices and brown medullae of normal thicknesses.

The right and left kidneys are 170 grams each. The renal capsules are smooth, thin, and semi-transparent. The cortical surfaces are smooth and red brown. The renal cortices are normal in thickness, slightly congested, and sharply delineated from the medullary pyramids, which are tan and unremarkable. The calyces, pelves, and ureters are non-dilated and drain normally. The urinary
bladder contains 50 milliliters of clear, yellow urine. The mucosa is gray-tan and wrinkled. The inferior vena cava is patent. The prostate is not enlarged.

Voluntary muscle groups of the anterior neck, chest wall, abdomen, and iliopsoas are symmetrical, firm, and red-brown.

The bones of the cervical, thoracic, and lumbar spine, the ribs, and the pelvis show no abnormalities.

The dura mater and falx cerebri are intact. There is no epidural or subdural hemorrhage.

The leptomeninges are thin and delicate. The brain is 1560 grams. The cerebral hemispheres are symmetrical. There is diffuse flattening of the gyri and effacement of the sulci (cerebral edema). The structures at the base of the brain, including cranial nerves and blood vessels are intact. The gray-white matter border is distinct. The deep white matter shows no softening, nodules or masses. The deep gray matter, including caudate, putamen, globus pallidus, and thalamus are normal in size, configuration, and coloration. The ventricular system is not dilated or compressed. The hippocampal formations are normally formed and normally placed. The mammillary bodies are normal. The substantia nigra is normally pigmented for age. The Aqueduct of Sylvius is patent. The cerebral peduncles are normal in size and coloration. The pontine white matter and fourth ventricle are without abnormality. The locus coeruleus is normally pigmented. The cerebellar folia, deep white matter, and dentate nucleus show no abnormality. There are no abnormalities of the medulla.

**AUTOPSY FINDINGS:**

1. Blunt force injuries of the head
   A. Abrasions, lacerations of head
   B. Subgaleal hemorrhage
   C. Skull fractures
   D. Subarachnoid hemorrhage
   E. Punctate hemorrhagic areas in left temporal lobe white matter

2. Blunt force injury of torso and extremities
   A. Abrasions, contusions

3. Cerebral edema

4. Pulmonary edema, heavy lungs, foamy fluid from mouth, nose and airways

6. Watery fluid in stomach

6. Fluid in sphenoid sinus
THE MIAMI-DADE COUNTY MEDICAL EXAMINER DEPARTMENT, MIAMI, FLORIDA

RIVERO, Eduardo...September 25, 2016...12:30PM....................Case No. 2016-02910

AUTOPSY PROTOCOL

TISSUES SUBMITTED FOR HISTOLOGIC EMBEDMENT:

Heart, lung, liver, kidney, brain

Kenneth Hutchins, M.D.
Associate Medical Examiner

Date: September 30, 2016
MACIAS, Emilio
September 25, 2016...10:30AM

Case No. 2016-02911

CAUSE OF DEATH:

Boat Crash

Edana Stroberg, D.O.
Associate Medical Examiner

Kenneth Hutchins, M.D.
Associate Medical Examiner

NOTE: The cause of death is based on the totality of the investigative data to date, which may not be included in the autopsy or external examination protocol.
**TOXICOLOGY REPORT**

Me Case #: **2016-02911**
Decedents Name: **MACIAS, Emilio**

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Reviewed By:

Edana Stroberg, D.O.
Associate Medical Examiner
September 29, 2016  12:56 pm

Diane M. Boland Ph.D, F-ABFT
Toxicology Division Director
September 29, 2016  11:26 am

QC by:  LZ
ATTENDEES:

FORENSIC TECHNICIAN: David Morcomb
PHOTOGRAPHER: Belmarie Lyons

EXTERNAL EXAMINATION:

The body is that of a well-developed, well-nourished, 5 foot 9 inch, 195 pound white man who appears the reported age of 27 years. The body is refrigerated, well-preserved, and not embalmed. The body mass index (BMI) is 29 kilograms per meter squared. A green plastic bracelet around the left ankle has the inscription “260397.”

The scalp is covered by up to 7.5 centimeter in length straight brown hair in a normal distribution. Facial hair consists of a brown beard and mustache. The irides are blue. The corneas are clear. The sclerae are white. The conjunctivae are congested and have no petechiae. The external auditory canals are unremarkable. The nasal septum and nasal bones are intact. The teeth are natural and in good repair. The oral mucosa is not injured. The frenula are not lacerated.

The neck and chest are symmetrical. The nipples and breasts are unremarkable.

The abdomen is soft. The back is symmetrical. The external genitalia are those of a fully developed adult, uncircumcised man. Both testes are in the scrotum. The anus is unremarkable.

The extremities have no fractures or deformities. The arms have no track marks. The wrists have no scars. The fingernails are intact.

TATTOOS:

A tattoo of a lion is on the superior aspect of the right side of the back. Tattoos of Asian-language symbols are on the posterior aspects of the upper arms.

EVIDENCE OF INJURY:

A 4 x 1 centimeter laceration is on the left aspect of the forehead. A 3.5 x 1.0 centimeter laceration is just above the right eye on the supraorbital arch. A 13 x 7 centimeter area of linear red-pink abrasions covers the forehead. A 3 x 1 centimeter area of linear red-pink abrasions is on the nose. A 7 x 3 centimeter area of linear red-pink abrasions is on the left aspect of the face.

A 3 x 2 centimeter area of subgaleal hemorrhage is on the left frontal region of the skull. A 2 x 1 centimeter area of subgaleal hemorrhage is on the right frontal region of the skull. A 2.0 x 1.5 centimeter area of subscalpular hemorrhage is on the right parietal region of the scalp. A 4.0 x 3.5 centimeter area of subscalpular hemorrhage is on the left frontal region of the scalp. A 2 x 1
centimeter area of subscalpular hemorrhage is on the right frontal region of the scalp. There is no skull fracture or brain injury.

A 10 x 8 centimeter area of linear red-pink abrasions is on the lateral aspect of the left side of the torso. A 30 x 15 centimeter area of linear red-pink abrasions is on the right aspect of the chest and right upper quadrant of the abdomen. Multiple, 0.5 centimeter to 2.5 centimeter, linear abrasions are on the inferior aspect of the right side of the back. A 5.5 x 4.0 centimeter area of abrasions is on the posterolateral aspect of the right hip.

Two, 3 x 2 centimeter and 2 x 1 centimeter, contusions are on the anterior and inferior aspects of the lower lobe of the left lung. The anterior aspect of the right kidney has multiple linear lacerations. The anterior and posterior aspects of the left kidney have multiple linear lacerations.

A 9 x 5 centimeter contusion is on the medial aspect of the upper right arm. A 1.1 x 0.5 centimeter abrasion is on the anteromedial aspect of the left hand. A 7.0 x 2.5 centimeter area of abrasions is on the posterior aspect of the upper right arm. A 1.0 x 0.5 centimeter abrasion is on the medial aspect of the right elbow. Multiple, 0.5 centimeter to 2.0 centimeter, linear abrasions cover the right elbow. Multiple, 0.5 centimeter to 1.5 centimeter, linear abrasions are on the posteromedial aspect of the left forearm.

A 2 x 1 centimeter laceration with an inferior 2.0 x 0.5 centimeter abrasion is on the medial aspect of the right knee. A 5 x 2 centimeter abrasion is on the medial aspect of the right thigh. A 4 x 2 centimeter abrasion is on the lateral aspect of the right knee. A 3 x 1 centimeter abrasion is on the medial aspect of the right leg, just below the knee. A 6 x 1 centimeter abrasion is on the anterior aspect of the right leg. A 2 x 1 centimeter abrasion is on the medial aspect of the right leg. A 1 centimeter round abrasion is on the right medial malleolus. Two, 0.5 centimeter, round abrasions are on the medial aspect of the left knee. A 5.5 x 3.0 centimeter area of abrasions is on the medial aspect of the left leg, just below the knee. A 3.0 x 1.5 centimeter abrasion is on the lateral aspect of the left leg. A 0.7 x 0.5 centimeter abrasion is on the left medial malleolus.

There is copious foamy fluid within the bronchi and lungs. The lungs are heavy and edematous. There is 2 milliliters of red-pink fluid in the sphenoid sinus. Tan watery fluid is in the stomach.

INTERNAL EXAMINATION:

The subcutaneous fat of the anterior abdominal wall is up to 3 centimeters thick. The ribs, sternum, and clavicles are intact. The diaphragm is not elevated. The mesothelial surfaces are smooth and glistening. All body organs are in their normal anatomical position. The right and left pleural cavities have no excess fluid or adhesions. The pericardial sac has no excess fluid. The peritoneal cavity has no excess fluid or adhesions.
AUTOPSY PROTOCOL

The soft tissues of the neck, including strap muscles and large vessels, are unremarkable. The hyoid bone, thyroid cartilage, and larynx are intact. The tan–brown thyroid gland has a normal size and shape and unremarkable parenchyma.

The 380 gram heart has smooth epicardial surfaces. The four cardiac chambers do not contain mural thrombi or thromboemboli. The mitral valve has pinpoint tan–white excrescences. The remaining three, thin, pliable, cardiac valves have no deformities or vegetations. The mural endocardium is thin, smooth, and translucent. The red–brown myocardium has no fibrosis, necrosis, erythema, or areas of accentuated softening or induration. The normally positioned ostia of the left main and right coronary arteries are patent. The coronary arteries arise normally and follow a right dominant distribution. The left anterior descending coronary artery has approximately 50 to 60 percent stenosis by atherosclerosis. The remaining coronary arteries and their branches have no atherosclerosis. The left and right ventricles are 1.3 centimeters and 0.3 centimeters thick, respectively. The interventricular septum is 1.3 centimeters thick. The thin elastic aorta is smooth and shiny with intimal fatty streaking and no atherosclerosis.

The upper airway is clear of debris and foreign material. The mucosal surfaces are smooth, pink–gray, and unremarkable. The trachea and mainstem bronchi contain white frothy fluid. The right and left lungs are 530 grams and 710 grams, respectively. The pleural surfaces are smooth and glistening. The pulmonary parenchyma exudes copious amounts of tan froth. The pulmonary parenchyma has no masses, granulomata, or discrete areas of consolidation. The pulmonary arteries are patent and have no thromboemboli.

The 2000 gram liver has a smooth, glistening, intact capsule covering dark brown parenchyma with a preserved lobular pattern. The liver has no focal lesions. The extra and intrahepatic vessels are patent. The gallbladder contains approximately 20 milliliters of yellow–green mucoid bile and no calculi. The gallbladder mucosa is green and velvety.

The tongue is unremarkable. The esophagus is lined by gray–white smooth mucosa and is not dilated or stenosed and has no varices. The stomach has a normal size and shape. The gastric mucosa is free of ulcerations and is arranged with the usual folds. The stomach contains approximately 600 milliliters of clear–tan watery fluid and partially digested food. The small intestine is normal in length, configuration, and diameter and has a smooth, shiny serosal surface. The mesentery has a normal insertion. The large intestine has a smooth, shiny serosal surface and no palpable masses or obstructions. The appendix is unremarkable.

The pink–tan pancreas has an intact lobular architecture and patent duct. The adrenal glands are unremarkable. The 270 gram spleen has an intact capsule covering red–purple, soft parenchyma. The bone marrow of the ribs is soft and dark red.

The right and left kidneys are 170 grams and 180 grams, respectively. The surfaces are red–brown and smooth. The parenchyma has well-defined corticomedullary junctions. The renal vessels are patent. The ureters have a normal course and caliber. The bladder contains 250 milliliters of clear–yellow urine. The mucosa is tan, mildly trabeculated, and intact. The prostate gland is
unremarkable. The two intrascrotal testes have homogenous tan parenchyma with no masses or ecchymoses.

The musculoskeletal system is well-developed. The muscles of the anterior neck, chest wall, abdomen, and iliopectos are symmetrical, firm, and red–brown. The pelvic bones and vertebral bodies of the cervical, thoracic, and lumbar spine are unremarkable.

The skull is intact and has no fractures of the calvarium or skull base. The cranial vault has no epidural or subdural hemorrhage. The brain is 1600 grams. The leptomeninges are thin and transparent. The cerebral hemispheres are symmetrical. There is diffuse flattening of the gyri and effacement of the sulci (cerebral edema). The structures at the base of the brain including cranial nerves and blood vessels are intact. The thin-walled arteries at the base of the brain have no berry aneurysms or other obvious abnormalities. The gray-white matter border is distinct. The deep white matter has no softening, nodules, or masses. The mammillary bodies are not shrunken or discolored. The dorsal cerebellar vermis is not atrophic. The symmetrical hippocampi are not shrunken, scarred, or ecchymotic. The atlanto-occipital ligaments and cervical spine are intact.

Two milliliters of red-pink fluid is aspirated from the sphenoid sinus.

**AUTOPSY FINDINGS:**

1. Blunt force injuries of the head:
   a. Lacerations and abrasions of the face
   b. Subscalpular and subgaleal hemorrhage

2. Blunt force injuries of the torso:
   a. Abrasions of the chest, abdomen, back, and right hip
   b. Contusions of the left lung
   c. Multiple lacerations of the kidneys

3. Blunt force injuries of the extremities:
   a. Abrasions, lacerations, and contusions of the extremities

4. Pulmonary edema, heavy lungs, foamy fluid in airways

5. Cerebral edema

6. Watery fluid in the stomach

7. Fluid in the sphenoid sinus

8. Excrescences of the mitral valve

9. Moderate atherosclerosis of the left anterior descending coronary artery
AUTOPSY PROTOCOL

TISSUES SUBMITTED FOR HISTOLOGY INCLUDE THE FOLLOWING:

- Heart
- Lung
- Liver
- Kidney
- Left anterior descending coronary artery
- Mitral valve

Edana Stroberg, D.O.
Associate Medical Examiner

Kenneth Hutchins, M.D.
Associate Medical Examiner

Date: September 30, 2016
FERNANDEZ, Jose
September 25, 2016...11:00AM

Case No.  2016-02912

CAUSE OF DEATH:

Boat Crash

Kenneth Hutchins, M.D.
Associate Medical Examiner

NOTE: The cause of death is based on the totality of the investigative data to date, which may not be included in the autopsy or external examination protocol.
### TOXICOLOGY REPORT

**ME Case #:** 2016-02912  
**Decedents Name:** FERNANDEZ, Jose  
**September 30, 2016**

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<td>GC-TSD-FID-MS</td>
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<td>GC-MS/MS</td>
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TOXICOLOGY REPORT

ME Case # 2016-02912
Decedents Name: FERNANDEZ, Jose

<table>
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<th>SUBSTANCE</th>
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<th>RESULT</th>
<th>METHOD</th>
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Reviewed By:

Kenneth Hutchins, M.D.
Associate Medical Examiner
September 30, 2016  6:56 am

Diane M. Boland Ph.D, F-ABFT
Toxicology Division Director
September 29, 2016  11:39 am

QC by:  LZ
EXTERNAL EXAMINATION:

The body is a well-developed, well-nourished, 257 pound, 6 foot 2 inch white man who appears compatible with the reported age of 24 years. The body is refrigerated, well preserved, and not embalmed. The body mass index (BMI) is 33 kilograms per meter squared. A green plastic bracelet around the left ankle has the inscription “260398.”

The head has brown scalp hair in a normal distribution. The face is covered by a slight mustache and beard. The irides are brown. The corneas are clear. The conjunctivae are pale. The sclerae are white. The external auditory canals, external nares, and oral cavity are free of lesions, foreign material, and abnormal secretions. The teeth are natural.

The neck is symmetrical without scars or masses.

The chest is symmetrical and the nipples and breasts are free of abnormality and palpable masses.

The abdomen is flat. The posterior torso is without note.

The fingernails are intact. There are no fractures or deformities of the extremities. The joints are not deformed. A 13 centimeters scar is on the inner right arm at the elbow. Two, small, 2 centimeters scars on the ventral right forearm.

There is a tattoo of names which appear to be Obatala (?), J.D.F. 16, Moritza (?), Olga, are on the inner-upper left arm. A colorful tattoo of a baseball in a wheel with a hook is on the lateral right leg.

The external genitalia are those of an adult uncircumcised male. The external anus has no abnormalities.

EVIDENCE OF INJURY:

A 3.5 x 1 centimeter full thickness, obliquely oriented laceration is on the right forehead. A 4 x 1.5 centimeters irregular laceration involves the right eyebrow. A 0.7 centimeter laceration is on the right upper eyelid. A 4 x 1.5 centimeter laceration is lateral to the right eye. A 6 x 1 centimeter laceration is on the right cheek. A 2 x 0.7 centimeter laceration is below the right corner of the mouth on the lower lip. Abrasions are on the mid-upper lip and left corner of the mouth. There are lacerations on and beneath the chin. There is a 30 x 7 centimeters area of linear red-pink abrasions and lacerations involving the right side of the face and neck. There are right and left, blue, periorbital
ecchymoses. A 0.4 centimeter red-brown abrasion is on the nasal bridge. A transverse, 2 centimeter, linear red-pink abrasion is on the tip of the nose. Small red-brown abrasions are on the left side of the nose. There are scleral and conjunctival petechial hemorrhages in the right eye.

There is a right zygomatic fracture. The mandible is fractured in multiple places. The maxilla is fractured in multiple places. There are lacerations of the oral mucosa. There are lacerations and contusions of the tongue. There are subscalpular hemorrhages associated with the right forehead and left occiput. There are no skull fractures. There is no injury of the underlying brain.

An 11 x 6 centimeter area of linear, red-pink abrasions is on the upper right chest at the clavicle. A 4 x 3 centimeter area of red-brown abrasions is on the right shoulder. A 40 x 7 centimeters area of transverse, linear, red-pink abrasions is on the right and left chest extending into the left shoulder. A 13 x 5 centimeters area of linear red-pink abrasions is on the lower left chest and abdomen. A 10 x 3 centimeters area of red-pink abrasions is on the mid-upper right abdomen.

There are contusions of the intestinal mesentery. There are contusions of the posterior lungs.

Up to 1 centimeter red-pink abrasions, contusions and lacerations are on the dorsal right hand at the metacarpal-phalangeal joints (knuckles). A 2 centimeter linear, red-pink abrasion is on the left forefinger at the first phalanx and a 1.5 centimeter linear red-pink abrasion is on the left 3rd finger at the first phalanx. There are small red-pink abrasions and contusions on the dorsal left hand at the 4th metacarpal-phalangeal joint (knuckle). A 0.5 centimeter red-brown abrasion is on the dorsal left hand at the level of the 5th finger. A 4 x 2 centimeter area of red-brown abrasions is on the anterior right thigh. A 6 x 4 centimeter blue contusion is on the right thigh above the knee. A 16 x 9 centimeters area of linear red-pink abrasions is on the lateral right leg. A 10 x 4 centimeter area of blue-green contusion is on the anterior left thigh. A 10 x 9 centimeter area of linear red-pink abrasions is on the medial left thigh. A 3 x 3 centimeter area of green-blue contusion is above the left knee. Associated with the contusions is hemorrhage in the underlying subcutaneous tissue.

Copious amounts of white foam exudes from the bronchi and lungs. The lungs are heavy and edematous. There is no fluid in the sphenoid sinus. There is no watery fluid in the stomach.

INTERNAL EXAMINATION:

There are no abnormalities of the anterior chest and abdominal walls. The ribs, sternum, and clavicles are intact. There are no abnormal collections of fluid or adhesions within the body cavities. The mesothelial surfaces are smooth and glistening. The diaphragm is not elevated. All body organs are in the normal anatomical position. The subcutaneous fat layer of the abdominal wall is up to 3.5 centimeters thick.

The soft tissues of the neck, including strap muscles and large vessels, reveal no abnormalities. The hyoid bone and larynx are intact.
The 580 gram heart has a smooth and glistening pericardial surface. The pericardial sac is free of significant fluid or adhesions. The epicardium is shiny with a moderate amount of epicardial fat. The coronary arteries arise normally and are right dominant. There is no evidence of atherosclerotic change within any of the coronary arteries. The chambers and valves exhibit the usual position relationship. The cusps of the aortic and pulmonic valves and leaflets of the mitral and tricuspid valves are thin pliable and translucent. There are no abnormalities of the chordae tendineae or papillary muscles. The myocardium is brown-red and firm. The left and right ventricles are 1.8 and 0.7 centimeters respectively. The atria are not dilated and are free of thrombi. The aorta and its major branches arise normally, follow the usual course, and are widely patent with no atherosclerotic change of its thoraco-abdominal portions. The vena cava and its major tributaries return to the heart in the usual distribution and are free of thrombi.

The upper airway, trachea, and mainstem bronchi are clear of debris and foreign material but exudes copious amounts of white foam. The mucosal surfaces are smooth, yellow-tan, and unremarkable. The right and left lungs are 820 grams and 750 grams, respectively. The lungs have normal lobar configurations. The pleural surfaces are smooth and glistening. The pulmonary parenchyma is red-purple and exudes copious amounts of frothy fluid. The patent, normally developed pulmonary arteries have no thrombi or emboli. The bronchial and mediastinal lymph nodes are not enlarged.

The esophagus is lined by gray-white smooth mucosa. There is no evidence of dilation, stenosis, or varices. The stomach is normal in size and shape. The gastric mucosa is free of ulcerations and is arranged in the usual rugal folds. The stomach contains approximately 150 milliliters of green, pasty partially digested food material and no watery fluid. The pylorus is not deformed and has a normal circumference. The small intestine is normal in length, configuration, and diameter and has a smooth, shiny serosal surface. The mesentery has a normal insertion, the vessels are patent, and the lymph nodes are not enlarged. The large intestine has a smooth shiny serosal surface and no palpable masses or obstructions. The appendix is normal.

The 2530 gram liver has a smooth, glistening, intact capsule covering dark brown congested parenchyma with no focal lesions. The lobular pattern is preserved. The extra and intra hepatic vessels are patent. The gallbladder contains 10 milliliters of yellow-green mucoid bile and no calculi. The mucosa is velvety. The cystic, common and hepatic bile ducts are free of calculi.

The pancreas is pink-tan and normal in size. The lobular architecture is intact. The duct is patent.

The spleen is 190 grams and has a smooth, intact capsule covering red-purple, firm parenchyma with inconspicuous lymphoid follicles. The bone marrow of the ribs has a soft consistency and is dark red. The regional lymph nodes of the neck, chest, abdomen, and pelvis are unremarkable.
AUTOPSY PROTOCOL

The pituitary gland is not enlarged. The thyroid gland has a normal size and shape. The parenchymal surface is tan-brown. The adrenal glands have a yellow cortices and brown medullae of normal thicknesses.

The right and left kidneys are 220 grams and 250 grams, respectively. The renal capsules are smooth, thin, and semi-transparent. The cortical surfaces are smooth and red brown. The renal cortices are normal in thickness, slightly congested, and sharply delineated from the medullary pyramids, which are tan and unremarkable. The calyces, pelves, and ureters are non-dilated and drain normally. The urinary bladder contains 75 milliliters of clear, yellow urine. The mucosa is gray-tan and wrinkled. The inferior vena cava is patent. The prostate is not enlarged.

Voluntary muscle groups of the anterior neck, chest wall, abdomen, and iliopsoas are symmetrical, firm, and red-brown.

The bones of the cervical, thoracic, and lumbar spine, the ribs, and the pelvis show no abnormalities.

There are no fractures of the calvarium or skull base. The dura mater and falx cerebri are intact. There is no epidural or subdural hemorrhage.

The leptomeninges are thin and delicate. The brain is 1580 grams. The cerebral hemispheres are symmetrical. The structures at the base of the brain, including cranial nerves and blood vessels are intact. The gray-white matter border is distinct. There is diffuse flattening of the gyri with effacement of the sulci (cerebral edema). The deep white matter shows no softening, nodules or masses. The deep gray matter, including caudate, putamen, globus pallidus, and thalamus are normal in size, configuration, and coloration. The ventricular system is not dilated or compressed. The hippocampal formations are normally formed and normally placed. The mammillary bodies are normal. The substantia nigra is normally pigmented for age. The Aqueduct of Sylvius is patent. The cerebral peduncles are normal in size and coloration. The pontine white matter and fourth ventricle are without abnormality. The locus coeruleus is normally pigmented. The cerebellar folia, deep white matter, and dentate nucleus show no abnormality. There are no abnormalities of the medulla.

AUTOPSY FINDINGS:

1. Blunt force injuries of the head
   A. Abrasions, lacerations, contusions of head
   B. Subscalpular hemorrhage
   C. Skull fracture, zygomatic
   D. Fractures mandible and maxilla

2. Blunt force injury of torso and extremities
   A. Abrasions, contusions

3. Cerebral edema
4. Pulmonary edema, heavy lungs, foamy fluid in airways

5. Cardiomegaly

TISSUES SUBMITTED FOR HISTOLOGIC EMBEDMENT:

Heart, lung, liver, kidney, brain

Kenneth Hutchins, M.D.
Associate Medical Examiner

Date: September 30, 2016