

RICKEY IMMEL

23-0631

MEDICAL EXAMINER REPORT

PIMA COUNTY, ARIZONA

ARIZONA DEPARTMENT OF PUBLIC SAFETY

AGENCY CASE #I23009694

FEBRUARY 16, 2023

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**PATHOLOGIC DIAGNOSES:**

1. Blunt force injuries
  - a. Abrasions, contusions, and lacerations
  - b. Blood from nares
  - c. Rib fractures
  - d. Subgaleal hemorrhages
2. Probable positional asphyxia
  - a. Body recovered in left lateral decubitus position
  - b. Seatbelt impression in livor mortis
3. Exposure to nitrogen oxide and nitrogen dioxide from spilled nitric acid
4. Hypertensive cardiovascular disease
  - a. Dilated cardiomyopathy with left ventricular hypertrophy
5. Obesity
  - a. Body mass index = 46.2 kg/m<sup>2</sup>
6. Acute and chronic ethanol abuse
  - a. Severe hepatic steatosis
  - b. Ethanol detected in postmortem specimens
7. History of diabetes

**OPINION:**

In consideration of the known circumstances surrounding this death, the available medical history and the examination of the body, the cause of death for Rickey Immel is ascribed to blunt force injuries, probable positional asphyxia and exposure to nitrogen gasses with hypertension, obesity, acute and chronic ethanol abuse and diabetes as contributing conditions.

The manner of death is accident.



David C. Winston, MD, PhD  
Medical Examiner

March 9, 2023

Date Signed

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**IDENTIFICATION:**

The body of Rickey Immel is identified via Arizona Department of Public Safety investigations.

**CIRCUMSTANCES OF DEATH:**

According to investigative reports, Mr. Immel was a driver of a semi-truck transporting nitric acid. The vehicle veered into the median and rolled on to its left side. There was a prolonged interval between the time of the accident and removal of the body due to nitrous gas formation. He remained seat belted on his left side until his removal. A review of medical records included a history of hypertension, obesity, chronic ethanol abuse and diabetes.

**CIRCUMSTANCES OF THE EXAMINATION:**

The postmortem examination of Rickey Immel is performed at the Pima County Office of the Medical Examiner, 2825 E District Street, Tucson, Arizona commencing at 8:30 AM on February 16, 2023.

**GENERAL INSPECTION:**

The unembalmed body is received in an unsealed white plastic body bag with the decedent's name written on the outside.

**CLOTHING AND PERSONAL EFFECTS:**

See Property/Evidence Log.

**EVIDENCE OF MEDICAL THERAPY:**

None.

**EXTERNAL EXAMINATION:**

The body is that of an obese, pale-complexioned adult male who measures 71 inches in length and weighs 331 pounds. The body is cool to touch. Rigor mortis is partial. Fixed purple livor mortis extends over both the anterior and posterior surfaces of the body except in areas exposed to pressure. The head is normally formed. The scalp hair is gray. The irides appear to be brown. The sclerae and conjunctivae are congested. The corneas are slightly clouded. The nose and lips are unremarkable. The teeth are natural. Facial hair includes gray beard with mustache. The neck is symmetrical without masses and the larynx is in the midline. The thorax is symmetrical with normal anteroposterior/lateral ratio. The abdomen is obese. The genitalia are those of a normal adult male. The testes are bilaterally descended within the scrotum. The back

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and anus are unremarkable. The upper and lower extremities are well developed and symmetrical without absence of digits.

**IDENTIFYING SCARS, MARKS, TATTOOS:**

1. Tattoos on the extremities

**EVIDENCE OF RECENT INJURY:**

**Head and Neck:**

Blunt Force Injuries: On the left forehead is a 1-1/2 inch laceration. On the forehead at the left scalp line is a 3/4 x 1/2 inch abrasion. On the nose and cheeks are up to 3/4 inch contusions. There is blood from both nares. On the right cheek is a 1-1/4 x 5/8 inch area of abrasions. There are foci of subgaleal hemorrhage. There are no skull fractures and no bleeding in or around the brain.

**Thorax and Abdomen:**

Blunt Force Injuries: There are no external injuries. Rib fractures include anterior left ribs 1-3. There is no bleeding in the thoracic or abdominal cavities and no injuries of the organs of the thorax and abdomen.

**Extremities:**

Blunt Force Injuries: On the upper left arm are linear abrasions up to 3 inches in length, irregular abrasions up to 5/8 inch in diameter and purple contusions up to 3 inches in diameter. Most of the left antecubital fossa and forearm is involved with confluent abrasions and up to 1 inch lacerations. On the dorsal wrists and hands are up to 3/4 inch abrasions. On the lateral left hip are up to 1 inch purple contusions and up to 5 inch abrasions. There are no palpable fractures of the extremity bones.

**Positional Asphyxia Findings:**

Extending from the upper left chest to the right flank is a blanched lividity pattern consistent with a seatbelt impression.

The above described injuries will not be mentioned in the remainder of this report.

**INTERNAL EXAMINATION:**

**Body Cavities:**

The right and left pleural cavities and the abdominal cavity are without significant fluids. All body organs are present in normal and anatomical position.

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**Central Nervous System:**

The brain weighs 1420 grams. The dura mater and falx cerebri are intact. The leptomeninges are thin and delicate. The cerebral hemispheres are symmetrical. The structures at the base of the brain including the cranial nerves and blood vessels are intact. Sections through the cerebral hemispheres reveal no lesions within the cortex, subcortical white matter or deep parenchyma. The basal ganglia, thalami and Ammon's horn are unremarkable. The cerebral ventricles are of normal caliber. Sections of the brain stem and cerebellum are unremarkable. The spinal cord is not examined.

**Neck:**

Examination of the soft tissues of the neck, including strap muscles and large vessels reveals no abnormalities. The hyoid bone and larynx are intact. The lingual mucosa is intact and the lingual musculature is without hemorrhage.

**Cardiovascular System:**

The heart weighs 580 grams. The pericardial surfaces are smooth, glistening and unremarkable. The pericardial sac contains scant amount of serous fluid. The coronary arteries arise normally with a right dominant pattern; follow the usual distribution with focal calcifications of the arterial walls but no significant narrowing. The chambers and valves have the usual size-position relationship with moderate biventricular dilation. The myocardium is dark red-brown, firm and unremarkable. The left ventricular thickness is 1.6 cm. The atrial and ventricular septa are intact. The aorta and its major branches arise normally, follow the usual course and are without significant atherosclerosis. The vena cava and its major tributaries return to the heart in the usual distribution.

**Respiratory System:**

The right lung weighs 620 grams and the left lung weighs 540 grams. The upper airway is clear of debris and foreign material. The mucosal surfaces are smooth, yellow-tan and unremarkable. Lobar divisions are of the usual configuration. The pulmonary parenchyma is dark, red-purple, exuding slight to moderate amounts of blood and frothy fluid with no focal lesions noted. The pulmonary arteries are normally developed, patent and without thrombus or embolus.

**Liver and Biliary System:**

The liver weighs 3020 grams. The hepatic capsule is smooth, glistening and intact, covering a pale yellow-brown parenchyma with no focal lesions noted. The gallbladder is absent.

**Alimentary Tract:**

The esophagus is lined by a gray-white smooth mucosa. The gastric mucosa is arranged with the usual rugal folds and the gastric lumen contains scant amount of mucoid brown material with no food or pill fragments. The small and large intestines are unremarkable. The appendix is present. The pancreas has a normal gray-white lobulated appearance and the ducts are clear.

**Genitourinary Tract:**

The right kidney weighs 160 grams and the left kidney weighs 200 grams. The renal capsules are thin and semi-transparent and strip with ease from the underlying smooth, red-brown firm 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 contains approximately 100 mL of clear yellow urine; the mucosa is gray-tan and smooth. The testes, prostate and seminal vesicles are unremarkable.

**Reticuloendothelial System:**

The spleen weighs 250 grams. 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 bone marrow is red-purple and homogeneous without evidence of focal abnormality.

**Endocrine System:**

The pituitary, thyroid and adrenal glands are unremarkable.

**Musculoskeletal System:**

The bony framework, supporting musculature and soft tissues are not unusual.

**MICROSCOPIC EXAMINATION:**

Slide 1: Left lung, kidneys

Slide 2: Heart

Slide 3: Right lung, liver

Slide 4: Heart

Lungs: foci of acute alveolar edema, focal calcifications of bronchiolar cartilage

Liver: severe steatosis

Kidneys: arteriolofibrointimal hyperplasia; foci of chronic interstitial inflammation

Heart: interstitial and perivascular fibrosis; focal myocyte hypertrophy

**TOXICOLOGY:**

See attached report.

**RADIOGRAPHY:**

A whole body radiograph reveals the above described rib fractures with no additional fractures.