



SOUTHWESTERN
INSTITUTE OF FORENSIC SCIENCES
AT DALLAS

Office of the Medical Examiner



Autopsy Report

Case: IFS-23-11817 - ME

Decedent: Gates, Eugene 66 years Black Male DOB: 02/25/1957

Date of Death: 06/20/2023 (Actual)

Time of Death: 04:37 PM (Actual)

Examination Performed: 06/21/2023 09:06 AM

Body Weight: 187 lbs BMI: 26.83

Body Length: 70 in

ORGAN WEIGHTS:

Brain: 1,510 g	Right Lung: 670 g	Right Kidney: 160 g
Heart: 510 g	Left Lung: 640 g	Left Kidney: 160 g
Liver: 1,940 g	Spleen: 140 g	

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EXTERNAL EXAMINATION

The body is identified by tags. Photographs and fingerprints are taken.

When first viewed, the body is partially clad in a blue shirt, black shirt, black socks, knee supporters (2), camouflage bandanna, and black headband. A white metal earring with clear stones is in the left ear. All items are released.

The body is that of a well-developed, well-nourished Black male whose appearance is consistent with the stated age of 66 years. The body weighs 187 pounds and is 70 inches long. There is good preservation in the absence of embalming. The body is cool secondary to refrigeration. Rigor is fully developed. There is well-developed, blanching, red-purple, posterior lividity.

The scalp is closely trimmed/bald. Black/gray facial hair is present. The irides appear brown, the corneas are clear, and there are no petechiae of the bulbar or palpebral conjunctivae. The teeth appear natural and in good condition. The chest is symmetrical and the abdomen is flat. The external genitalia and perineum are unremarkable. The extremities are well-developed and symmetrical. The back is unremarkable.

IDENTIFYING MARKS AND SCARS

None.



Accredited by The National Association of Medical Examiners

Gates, Eugene

EVIDENCE OF THERAPY

An endotracheal tube is in the mouth. Desfibrillator and electrocardiogram pads are on the trunk. Intravascular catheters are in the right antecubital fossa and left forearm.

Internal examination of the trunk reveals fractures of the sternum, anterior left 3rd through 7th, and anterior right 3rd through 5th ribs, consistent with resuscitation efforts.

EVIDENCE OF INJURY

None.

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INTERNAL EXAMINATION

BODY CAVITIES: The thoracic and abdominal organs are in their normal anatomic position. The body contains no adhesions or abnormal collections of fluid.

HEAD: The scalp, subscalpular area, and skull are unremarkable. The dura and dural sinuses are unremarkable. There is no epidural, subdural, or subarachnoid hemorrhage. The leptomeninges are thin and delicate. The cerebral hemispheres are symmetrical, with an unremarkable gyral pattern. The cranial nerves and blood vessels are unremarkable. Sections through the cerebral hemispheres, brainstem, and cerebellum are unremarkable. There are no hemorrhages in the white matter or the basal ganglia. The cerebral ventricles contain no blood. The dura is stripped from the base of the skull and reveals no fracture. The spinal cord, as viewed from the cranial cavity, is unremarkable.

NECK: Sectioning of the tongue reveals no significant injury. The soft tissues and prevertebral fascia are unremarkable. The hyoid bone and laryngeal cartilages are intact. The lumen of the larynx is not obstructed.

CARDIOVASCULAR SYSTEM: The intimal surface of the aorta demonstrates moderate atherosclerosis. The aorta and the great veins are normally distributed. The pulmonary arteries contain no thromboemboli. The pericardium, epicardium, and endocardium are smooth and unremarkable. There are no thrombi in the atria or ventricles. The foramen ovale is closed. Dissection of the coronary arterial system demonstrates an atherosclerotic plaque within the left anterior descending coronary artery resulting in approximately 50% stenosis. The atrial and ventricular septa are intact. The cardiac valves are unremarkable. The myocardium is dark red-brown and firm, and there are no focal abnormalities.

RESPIRATORY SYSTEM: The upper airway is not obstructed. The laryngeal mucosa is smooth and unremarkable, without petechiae. The pleural surfaces are smooth and glistening. The major bronchi are unremarkable. Sectioning of the lungs discloses a dark red-blue, moderately congested parenchyma.

HEPATOBIILIARY SYSTEM: The liver is covered by a smooth, glistening capsule. The parenchyma is dark red-brown and moderately congested. The gallbladder contains approximately 60 mL of dark green bile, with no calculi.

GASTROINTESTINAL SYSTEM: The esophageal mucosa is gray, smooth, and unremarkable. The stomach contains approximately 50 mL of tan-brown liquid. There are no tablets or capsules. The gastric mucosa has normal rugal folds, and there are no ulcers. The small and large intestines are externally unremarkable. The appendix is present. The pancreas is



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unremarkable externally and upon sectioning.

GENITOURINARY SYSTEM: The capsule of both kidneys strip to reveal smooth and slightly lobulated surfaces. The cortices are of normal thickness, with well-demarcated corticomedullary junctions. The calyces, pelvis, and ureters are unremarkable. The urinary bladder contains no urine. The bladder mucosa is gray, smooth, and unremarkable. The prostate gland is grossly enlarged and multinodular upon sectioning.

ENDOCRINE SYSTEM: The thyroid and adrenal glands are unremarkable externally and upon sectioning.

LYMPHORETICULAR SYSTEM: The spleen is covered by a smooth, blue-gray, intact capsule. The parenchyma is dark red. The cervical, hilar, and peritoneal lymph nodes are unremarkable.

MUSCULOSKELETAL SYSTEM: See EVIDENCE OF THERAPY. The clavicles, pelvis, and vertebral column have no fracture. The diaphragm is intact.

NEUROMICROSCOPIC EXAMINATION

Microscopic sections are prepared from 12 brain regions, including hippocampus, neocortex from the frontal, temporal, parietal, and occipital lobes, amygdala, basal ganglia, brainstem (3 levels), and cerebellum, using H&E, fluorescent thioflavine-S preparations (hippocampal and neocortical sections), and phospho-tau immunostains (hippocampal and neocortical sections).

Light and fluorescent microscopy demonstrates very rare neurofibrillary tangles and dystrophic neurites restricted to the entorhinal cortex; there are no neocortical neurofibrillary tangles or senile plaques. The extent of neurofibrillary tangle formation corresponds to a Braak & Braak stage I (transentorhinal stage). In the absence of neocortical plaques, the neurofibrillary changes noted are consistent with primary age-related tauopathy (PART). This density of neurofibrillary pathology was likely asymptomatic.

TDP-43 immunostaining of the amygdala, hippocampus, and frontal neocortex demonstrates no TDP-43 immunoreactive cytoplasmic inclusions.

Screening α -synuclein immunostaining of the midulla and amygdala demonstrates no Lewy bodies or Lewy neurites, and Lewy bodies are absent from H&E stained sections of substantia nigra and locus coeruleus.

MICROSCOPIC EXAMINATION:

HEART: Sections of the heart show myocyte hypertrophy and scattered areas of interstitial fibrosis.

LUNGS: Sections of the lungs show focal small collections of bacterial overgrowth without associated inflammatory reaction.

LIVER: A section of the liver shows rare macrovesicular steatosis.

KIDNEY: A section of the left kidney shows mild arteriosclerosis, sclerotic glomeruli, small collections of mononuclear inflammatory cells within the cortex, and focally increased interstitial connective tissue.



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TOXICOLOGY:**Evidence Submitted:**

The following items were received by the Laboratory from Forensic Pathology:

- 006: Biohazard Bag
- 006-001: Blood, femoral - gray top tube
- 006-002: Blood, femoral - gray top tube
- 006-003: Blood, femoral - gray top tube
- 006-004: Blood, femoral - red top tube

The following items were received by the Laboratory from Forensic Pathology:

- 007: Biohazard Bag
- 007-001: Vitreous - red top tube

Blood, postmortem**Acid/Neutral Screen (GC/MS)**

none identified (Item# 006-003)

Alcohols/Acetone (GC)

negative (Item# 006-003)

Drug Screen (QTOP)

none identified (Item# 006-003)

Vitreous**Alcohols/Acetone (GC)**

negative (Item# 007-001)

Electrolytes (Analyzer)

- sodium: 143 mEq/L (Item# 007-001)
- potassium: 11.3 mEq/L (Item# 007-001)
- chloride: 118 mEq/L (Item# 007-001)
- glucose: 35 mg/dL (Item# 007-001)
- urea nitrogen: 21 mg/dL (Item# 007-001)
- creatinine: <1.0 mg/dL (Item# 007-001)

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FINDINGS:

I. Hypertensive and atherosclerotic cardiovascular disease:

- A. Cardiomegaly (510 g).
- B. Mild arterionephrosclerosis.
- C. Moderate atherosclerosis of the left anterior descending coronary artery.
- D. Myocyte hypertrophy and interstitial fibrosis on microscopic sections of the heart.

II. Hyperthermia:

- A. History that the decedent experienced a witnessed collapse while working outdoors on the afternoon of 06/20/2023.
- B. He was transported to the hospital where his rectal temperature was reportedly 104.6 degrees Fahrenheit.
- C. Resuscitation efforts were unsuccessful and he was pronounced shortly after arrival.
- D. The outdoor temperature for Dallas, TX on the afternoon of 06/20/2023 was approximately 97 degrees Fahrenheit.

III. Evidence of attempted resuscitation.

CONCLUSIONS:

Based on the case history and autopsy findings, it is my opinion that Eugene Gates, a 66-year-old Black male, died as a result of hypertensive and atherosclerotic cardiovascular disease and hyperthermia.

MANNER OF DEATH: Accident

T. D. Danielson

09/20/2023

Travis Danielson, M.D.
Medical Examiner

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