



City and County of Denver

OFFICE OF THE MEDICAL EXAMINER
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AUTOPSY REPORT

Name of decedent: MARVIN L. BOOKER ME#: 2010-1677
Date and time of death: JULY 9, 2010; 0433 HOURS Age: 56 YEARS
Date and time of autopsy: JULY 9, 2010; 0930 HOURS Sex: MALE

DIAGNOSES:

- I. Cardiorespiratory arrest during physical restraint
 - a. Decedent restrained prone on floor with weight of restraining officers on thorax and abdomen
 - b. Application of carotid "sleeper" hold to neck by restraining officer
 - i. Petechial hemorrhages of sclerae and conjunctivae
 - ii. Hemorrhage to base of left sternocleidomastoid and left sternohyoid muscles
 - c. Abrasions to lower legs from application of "OPN" (nunchuck), and to right wrist and forearm from application of handcuffs
 - d. Application by restraining officer of hand-held Taser to lower extremity in "stun drive" mode
 - i. Single 8-second discharge per device interrogation
 - ii. No visible indication on body of application site
- II. Hypertensive cardiovascular disease
 - a. Cardiac hypertrophy (heart weight, 570 grams)
 - b. Nephrosclerosis
- III. Emphysema
- IV. Recent cocaine use
 - a. Blood cocaine --- 57 ng/mL; blood benzoylecgonine --- 790 ng/mL

- V. Resuscitation-related fractures of sternum and right ribs 2-5
- VI. Incidental findings
 - a. Left inguinal hernia
 - b. Hydroceles, testes
 - c. Cholelithiasis (gallstones)
 - d. Cyst, right kidney

TOXICOLOGY:

REFERENCE LABORATORY: National Medical Services, Inc.
Willow Grove, PA

Basic postmortem blood panels results:

Cocaine ----- 57 ng/ml
 Benzoyllecgonine ----- 790 ng/ml

Other than the above findings, examination of the specimen(s) submitted did not reveal any positive findings of toxicological significance.

OPINION:

The cause of death is cardiorespiratory arrest during physical restraint. The restraints consisted of weight applied to the decedent's body while held prone on the floor, application of a carotid "sleeper" hold to the decedent's neck, application of a Taser to a lower extremity in "stun drive" mode for 8 seconds, restriction of arm movement by cuffing his hands behind his back, and restriction of leg movement by use of an "OPN" (nunchuck). Cardiac hypertrophy, emphysema, and use of cocaine are significant contributing factors. The manner of death is homicide.

John Carver MD
8/20/10

John D. Carver, M.D.

SUPPLEMENTAL MATERIALS EXAMINED:

Videotapes (without sound) of the events described above taken by cameras located in the booking area of the Van Cise-Simonet Detention Center providing three vantage points: 1) from the ceiling looking down into the "holding tank" (and towards the decedent); 2) from behind the booking officers desks and out into the "holding tank"; 3) and from the ceiling looking down the isolation cell hallway (with isolation cell doors to the left). No film provided a view of events within isolation cell I-8 itself.

Videotapes of Denver Police Department interviews of Sheriff's deputies Gomez, Grimes, Sharp, Robinette and Sergeant Medina (conducted by Detective Martin Vigil), and nurse George (conducted by Detective Sisneros).

Handwritten progress note of Denver Sheriff Department Health Services, dated 7-9-10 at 0430, signed by G. George, R.N.

Denver Health Medical Center Paramedic Division/EMS Prehospital Patient Care Report, Incident Number 046102, dated 7/9/2010, for Marvin Booker, Medical record #324658.

Handwritten Denver Health/Denver Sheriff Department facilities progress note, dated 7/9/2010 at 0500, signed by D. Dandurand, R.N.

Denver Health Medical Center Emergency Department physician's notes and trauma flow sheet, all dated 7/9/2010, for Marvin Louis Booker, medical record number 3246658.

Printout (16 pages) of downloaded firing data for Taser Serial # X00-379203, Model X26, covering the period of time from 03/07/08 at 09:25:03 local time, through 07/23/10 at 10:28:17 local time.

CIRCUMSTANCES OF DEATH: The decedent was a 56-year-old African-American male (DOB: 02/04/1954) who became unresponsive while in the custody of the Denver Sheriff's Department. He had been detained for drug-related charges, and had been seated in the "holding tank" for several hours prior to being called for formal booking. He was reportedly angry and uncooperative, and would not sit down at the booking officer's desk. When he turned to return to the holding area for his shoes, the booking officer called him towards an isolation cell, and when he failed to come to her, she went to the holding area and placed her arms on his. He swung his arms to shake her off. The

booking deputy was joined by three other officers who forced the decedent first to a chair, and then face down on the floor. Two officers struggled to cuff his hands behind his back; another tried to control his legs; a fourth lay across his upper back and applied a carotid "sleeper" hold around his neck. The decedent continued to resist, and the officer applying the neck hold requested a Taser. A fifth officer applied the Taser to his leg, and discharged it for 8 seconds. The decedent ceased resisting shortly after the use of the Taser. The decedent was face down on the floor, with the weight of others on his chest and abdomen, for approximately 4 minutes. The carotid "sleeper" hold had been applied for a total of approximately 2-1/2 minutes, reportedly with intermittent release of pressure to determine whether resistance continued. The officers carried him to an isolation cell, and placed him on the floor (again face down). He offered no further resistance from the time he was carried to the cell. His cuffs were removed, while an officer kneeled on his back (for an estimated 1-1/2 to 2 minutes). Shortly thereafter, an officer observed through the cell door that the decedent did not appear to be breathing. A nurse was called. She found him unresponsive, started cardiopulmonary resuscitation, and activated emergency medical services. The fire department arrived first, and assisted ventilation with a bag valve respirator. Denver Health Emergency Medical Technicians arrived, intubated him, and administered epinephrine, atropine, and Narcan. A detectable rhythm (ventricular tachycardia) was briefly reestablished, and he was shocked, but he returned to pulseless electrical activity. He was declared dead shortly after arrival at Denver Health, despite ongoing resuscitation attempts.

WITNESSES: Personnel present for portions of the postmortem examination include John D. Carver, M.D., and Ms. Karen Jazowski, Autopsy Assistant. Detectives Gabel, Harrington, and Castro of the Denver Police Department, and Belinda Maldonado, intern from the Denver Police Department, are present for portions of autopsy.

IDENTIFICATION: Positive identification was made via fingerprint comparison. A handwritten transportation band is around the left ankle. Two hospital identification bands are around the left wrist: one identifies the decedent as "MARVIN LEWIS BOOKER, MEDICAL RECORD #3246658"; the other identifies the decedent as "GOLDEN SIXTY" with the same medical record number.

CLOTHING: The body arrives unclad in an unsealed body bag. Paper bags have been placed over the hands; these are not secured in place with

tape.

IDENTIFYING MARKS AND SCARS: None.

EVIDENCE OF MEDICAL/SURGICAL INTERVENTION: Evidence of medical/surgical intervention consists of the following:

- Endotracheal tube
- Nasogastric tube
- Adhesive electrocardiographic lead pads
- Adhesive defibrillation pads
- Intravenous catheter, left antecubital fossa
- Intravenous catheter, right forearm

GENERAL EXTERNAL EXAMINATION

The autopsy is commenced at 0930 hours, on July 9, 2010, on the body of Marvin L. Booker at the Denver Office of the Medical Examiner, State of Colorado. The body is that of a well-developed, well-nourished African-American male whose appearance is generally consistent with the reported age of 56 years. The body measures 65 inches long and weighs 135 pounds.

At the time of autopsy rigor mortis has not developed. The body is still slightly warm to the touch. Faint purple livor mortis is in the posterior portions of the neck, back, shoulders, and lower extremities.

HEAD: The body hair has a normal male distribution. Head hair is curly, graying black, and with a receding pattern. A short graying black mustache and goatee are over the upper lip and chin. EYES: The irides are brown. The pupils are equal. Fine scattered petechial hemorrhages are over the conjunctival surfaces of the lower palpebra and at the outer canthi of both sclerae. No petechiae are visible on surrounding periorbital skin. NOSE: The septum is midline. EARS: The ears are normally formed. ORAL CAVITY: The oral cavity contains natural dentition in the lower jaw; the upper jaw is edentulous.

NECK: The neck structures are midline. There is no external evidence of injury to the neck.

CHEST: The breasts and nipples are normal male. There is a linear dried, dark purple, 1 cm abrasion over the top of the right shoulder.

ABDOMEN: The abdomen is flat and firm.

GENITALIA: The groin is notable for a left-sided inguinal hernia. The testes are enlarged.

EXTREMITIES:

UPPER EXTREMITIES: The upper extremities are symmetrically formed with all digits present. There is a 0.8-cm dried superficial abrasion over the ulnar surface of the right forearm, and a 0.5 cm dried superficial abrasion over the right wrist. A 5 x 1 cm horizontal well-healed scar is over the outer surface of the right forearm. Additional small, well-healed scars are on the back of the right hand. Numerous short linear to circular well-healed scars are over the outer surface of the left upper arm. The fingernails are intact. There are no obvious external injuries to the palms of the hands or the forearms.

LOWER EXTREMITIES: The lower extremities are symmetrically formed with all digits present. A 6 x 1.5 cm vertical scar is medial to the left kneecap. Additional minor traumatic scars are over the kneecaps and shins. A 4 x 2.5 cm area of dried tan to orange-red abrasion is over the right medial malleolus. A 3.5 x 3 cm area of dried tan-orange abrasion is above the right lateral malleolus. Two dried tan-orange abrasion over an area measuring 3 x 1.5 cm are over the posterior right calf. The toenails are untrimmed and somewhat distorted by fungus.

BACK AND SACRUM: The back and sacrum are unremarkable.

GENERAL INTERNAL EXAMINATION

BODY CAVITIES: There are no abnormal fluid accumulations or adhesions in any of the body cavities. Reflection of the chest wall musculature reveals a central fracture of the sternum with hemorrhage over the mediastinum. Anterolateral fractures involve right ribs 2-5. These injuries are likely resuscitation related.

CARDIOVASCULAR SYSTEM: The heart weighs 570 grams. The epicardial surface is unremarkable. The coronary ostia are patent. The coronary arteries follow a right dominant distribution. Sectioning reveals no significant narrowing by atherosclerosis. No acute thrombosis is detected. The endocardial surface and papillary muscles are unremarkable. The valve leaflets are thin and pliant. The left ventricle and septum exhibit concentric hypertrophy with left ventricular free wall thickness up to 2.0 cm. The myocardium is firm and red-brown. There are no areas of fibrosis or scarring. AORTA: The

aorta has a normal smooth yellow intimal surface. There is minimal atherosclerotic streaking noted. The major branches, including the celiac, superior and inferior mesenteric, and renal arteries are widely patent. The inferior vena cava is unremarkable.

RESPIRATORY SYSTEM: The right and left lungs weigh 500 and 475 grams, respectively, and show normal septation. Anthracotic pigmentation is diffusely over the visceral pleural surfaces, and on cut section, apical bullae involve both lungs. The parenchyma is mottled tan-pink. There are no masses or areas of consolidation. The trachea and mainstem bronchi are tan and moist. There are no masses or aspirated material. The pulmonary arteries are free of thromboemboli.

SPLEEN: The spleen weighs 150 grams. The capsule is intact. The parenchyma is firm and purple. There are no infarcts, nodules, scars, or cysts present.

LIVER AND BILIARY SYSTEM:

LIVER: The liver weighs 1440 grams. The capsule is intact. The parenchyma is firm and orange-brown. No masses are detected. GALLBLADDER: A thin-walled gallbladder contains liquid bile and three cuboidal yellowish green stones measuring between 1 and 1.5 cm in maximum dimension.

GASTROINTESTINAL TRACT:

ESOPHAGUS: The esophagus has an intact, pink-purple mucosa. STOMACH: The stomach is arranged in the normal rugal folds and contains 5 to 10 ml of dark brown, thin, mucoid fluid. No pill fragments are identified in the stomach. The mucosal surface is smooth and glistening. There are no gastric or duodenal ulcers. SMALL AND LARGE INTESTINES: The large and small intestines have appropriate luminal diameter and serosal appearance throughout their respective courses. The jejunum and ileum contain dark green feces. The colon contains well-formed tan-green stool. No pill fragments or other foreign materials are identified in the intestines. The vermiform appendix is identified. Loops of small bowel protrude into the scrotum through an inguinal defect. There is no evidence of torsion or necrosis of the herniated bowel.

PANCREAS: The pancreas has tan-orange, lobular architecture and no evidence of hemorrhage or saponification.

ADRENAL GLANDS: The adrenal glands have a golden cortex and gray-brown

medulla.

GENITOURINARY SYSTEM:

KIDNEYS: The right and left kidneys weigh 160 and 210 grams, respectively. A 2 cm clear fluid-filled cyst involves the inferior pole of the right kidney. The external cortical surfaces are reddish purple and very finely granular. The cortices are well delineated from the medullary pyramids. The pelves and ureters are nondilated. URINARY BLADDER: The urinary bladder contains 3 ml of clear yellow urine. The mucosal surface is tan-pink and wrinkled. MALE INTERNAL GENITALIA: The prostate gland is firm and tan-yellow with no nodularity or enlargement. A sizable hydrocele involves the left testis. A smaller volume hydrocele involves the right testis.

SPINE: The spine has normal configuration.

NECK: Focal hemorrhage involves the lateral head of the left sternocleidomastoid muscle, near the clavicle. A layer-wise dissection reveals additional hemorrhage involving the base of the left sternohyoid muscle. There is no corresponding hemorrhage on the right side. The tongue is free of lacerations and contusions. The hyoid bone and thyroid cartilage are intact. The laryngeal mucosa is tan and moist. There are no masses or aspirated material. The thyroid gland has symmetrical lobes and appears unremarkable.

SKULL AND BRAIN: Reflection of the scalp reveals no areas of laceration, contusion, or hematoma. The skull is intact and without fracture. The dura is intact and without epidural or subdural hemorrhage. There is no subarachnoid hemorrhage. The brain weighs 1050 grams. Nonocclusive atherosclerosis involves the basilar artery. The cerebrovascular system has normal configuration. The cranial nerves are symmetrically intact. Serial coronal sections through the brain reveal no areas of hemorrhage, contusion, or mass lesion within the cortex, white matter, brainstem, or cerebellum. The atlanto-occipital joint is intact. The cervical spinal column has normal mobility.

SPECIMENS OBTAINED

SPECIMENS: Specimens retained at autopsy include vitreous fluid, stomach contents, and blood from the iliac veins.

HISTOLOGY: Sections of heart, lung, liver, kidney, and brain are submitted for histology.

MICROSCOPIC EXAMINATION

HEART: Interstitial fibrosis is mildly increased, in a primarily perivascular pattern. A single cluster of mononuclear inflammatory cells is associated with possible myocyte damage.

LUNG: The pleural surface is scarred. Alveoli are enlarged, have clubbed septa, and contain numerous pigmented macrophages.

LIVER: Free of significant histopathology.

KIDNEY: Mononuclear inflammatory cells surround clusters of sclerotic glomeruli.

BRAIN: Occasional neurons of the hippocampus have retracted, mildly eosinophilic cytoplasm.