24-2342

MEDICAL EXAMINER REPORT
PIMA COUNTY, ARIZONA
MARANA POLICE DEPARTMENT
CASE # 2407-0484
JULY 10, 2024

Page 1

Page 2

FINDINGS:

- I. Environmental heat exposure
 - A. Decedent found unresponsive inside a hot car with a measured temperature of 108.9 degrees Fahrenheit by Emergency Medical Services
- II. Hyperthermic dehydration
 - A. Vitreous electrolytes analysis shows elevated sodium, creatinine, potassium, chloride, and urea nitrogen; See NMS Labs Toxicology report
- III. Toxicological analysis of peripheral blood is negative for screened substancesA. See NMS Labs Toxicology report
- IV. Postmortem changes
 - A. Skin slippage with drying involving the head, neck and extremities

OPINION:

In consideration of the known circumstances surrounding this death, the available medical history, and the examination of the remains, the cause of death is ascribed to environmental heat exposure.

The manner of death is accident.

Morgan Long, D.O. Forensic Pathology Fellow 07/25/2024 Date Signed

Gregory L. Hess, M.D.

Date Signed

July 29, 2024

Medical Examiner

Page 3

DATE OF DEATH: July 9, 2024 **TIME OF DEATH:** 1658 Hours

DATE OF EXAM: July 10, 2024 **TIME OF EXAM:** 0830 Hours

PLACE OF EXAM: Pima County Office of the Medical Examiner

2825 E. District Street Tucson, Arizona 85714

PERFORMED BY: Morgan Long, D.O.

Forensic Pathology Fellow

WITNESSED BY: Detective Jenkins and Crime Scene Technician Pitzer

Marana Police Department

HISTORY

The decedent was a 2-year-old female who was found unresponsive inside a car outside of her residence.

PHOTOGRAPHS

Photographs are taken during the examination by Morgan Long, D.O., Forensic Pathology Fellow and Crime Scene Technician Pitzer, Marana Police Department.

CLOTHING

See "Property/Evidence Log" for a detailed list of clothing and personal effects accompanying the body at the time of the examination.

EVIDENCE OF MEDICAL INTERVENTION

- 1) Electrocardiogram lead pads on the chest and abdomen
- 2) Pulse oximeter lead wires extending to the right big toe and right second finger
- 3) Defibrillator pads on the mid back

EXTERNAL EXAMINATION

The body is received in the supine position within a white body bag with intact seal numbered 11482. The body is that of a well-developed, well-nourished female child without dysmorphic features of stated age 2 years and 8 months who weighs 22 pounds and is 35 inches in length. The body is cold. Rigor mortis is fully fixed in the muscles of the jaw and extremities. Fixed pink livor mortis extends over the posterior surfaces of the body, except in areas exposed to pressure. There is postmortem change as evidenced by skin slippage with underlying drying artifact in measured areas of the face, neck, arms, legs, and feet as follows: Forehead - 3.0 x 2.0 cm, bridge of nose - 0.5 x 0.3 cm, chin - 1.5 x 0.8 cm, anterior neck - a 7.0 x 6.5 cm area, with multiple individual lesions ranging from 0.2 to 1.5 cm, right chest - 1.0 x 0.3 cm, right anterior arm - multiple lesions ranging from 0.5 to 1.0 cm, left posterior forearm - area measuring 12.5 x 3.5 cm with multiple lesions ranging from 0.2 to 5.0 cm, right medial thigh - 5.0 x 5.0 cm, right

Page 4

medial knee - 1.2×1.3 cm, right dorsal foot - 2.0 to 3.5 cm, left upper and lower leg – multiple lesions ranging from 0.5 to 3.5 cm, mid back - 0.5×0.3 cm.

The head is normocephalic. The scalp hair is brown, wavy and approximately 28 cm in length over the vertex. The hair growth pattern is normal. The fontanelles are closed. The irides are blue. The corneas are translucent. The sclerae and the conjunctivae are clear. No petechial hemorrhages are identified on the sclerae or conjunctivae. The nose is normally formed and the choanae are probe patent. The mouth has a normal complement of teeth, in keeping with the age of the child. The maxillary and mandibular frenula are intact. The palate is intact and normally arched. No petechial hemorrhages are on the oral mucosa. The ears are unremarkable. No petechial hemorrhages are on the facial skin. The neck organs are in the normal midline position and appear unremarkable.

The thorax is well developed and symmetrical. The abdomen is flat. The external genitalia are those of a normal female child. The anus is free of lesions.

The upper extremities are well developed and symmetrical without absence of digits. The hands have short, clean, regularly trimmed fingernails. The lower extremities are well developed and symmetrical without absence of digits. The spine is normally formed and the surface of the back is free of lesions.

IDENTIFYING MARKS AND SCARS

No identifying marks, scars or tattoos are readily apparent.

EVIDENCE OF INJURY

No injuries are identified on external examination.

INTERNAL EXAMINATION

The body is opened with a routine thoracoabdominal incision. The skeletal muscle has a redbrown color and a normal smooth texture.

BODY CAVITIES

No adhesions or abnormal collections of fluid are in the pleural spaces or peritoneal cavity. All body organs are in a normal and anatomic position. The serous surfaces and pericardium are smooth and glistening. The intact diaphragm separates the thoracic and peritoneal cavities.

CARDIOVASCULAR SYSTEM

The heart weighs 48 grams. The shape and size of the heart are not unusual with the appropriate lateralization features. The pericardial sac is free of significant fluid or adhesions. The pericardial surfaces are smooth and glistening. The coronary arteries arise normally and follow a right distribution of dominance. The chambers are nondilated and have the usual size and position relationships. The chambers and valves are proportionate. The valves are normally formed, thin and pliable. The myocardium is dark red-brown, firm, and unremarkable. The

Page 5

atrial and ventricular septa are intact and the septum and free walls are free of muscular bulges. The foramen ovale is closed. The pulmonary artery, aorta and their major branches arise normally and follow the usual course without thrombotic obstruction or coarctation. The ductus arteriosus is closed. The vena cava and its major tributaries are patent, return to the heart in the normal distribution, and are unremarkable.

RESPIRATORY SYSTEM

The left and right lungs weigh 128 and 127 grams, respectively. The upper and lower airways are patent and unobstructed and the mucosal surfaces are smooth and pink-purple. The pleural surfaces are smooth, glistening, and unremarkable. The pulmonary parenchyma is red-purple and free of consolidation and masses. The cut surfaces of the lungs exude mild amounts of blood. The pulmonary arteries are normally developed and unremarkable.

HEPATOBILIARY SYSTEM AND PANCREAS

The liver weighs 325 grams. The hepatic capsule is smooth, glistening, and intact, covering a red-brown parenchyma. A thin-walled gallbladder contains green watery bile. The pancreas has a normal size, shape, position, and tan lobulated appearance.

GASTROINTESTINAL SYSTEM

The esophagus courses to the stomach without fistulae and is lined by a gray-white smooth mucosa. The gastroesophageal junction is unremarkable. The gastric mucosa is arranged in the usual rugal folds and the lumen contains less than 5 mL of clear yellow fluid. The pylorus is patent and without muscular hypertrophy. The small and large bowel are of appropriate caliber without interruption of luminal continuity. The vermiform appendix is present. The colon contains semiformed stool.

GENITOURINARY SYSTEM

The left and right kidneys weigh 32 grams and 24 grams, respectively. The renal capsules are smooth, thin, semitransparent, and strip with ease from the underlying smooth, red-brown, firm, cortical surfaces. The cortices are of normal thickness and delineated from the medullary pyramids. The calyces, pelves, and ureters are non-dilated. The urinary bladder contains no urine. The bladder mucosa is gray-tan and smooth. The uterus, fallopian tubes, ovaries, and vagina are unremarkable.

RETICULOENDOTHELIAL SYSTEM

The spleen weighs 55 grams and has a smooth intact capsule covering a red-purple moderately firm parenchyma. Regional lymph nodes are grossly unremarkable. The 10 gram thymus is pink-tan, lobulated, symmetrical and without petechiae.

ENDOCRINE SYSTEM

The thyroid gland is of normal position, size and texture. The adrenal glands have normal cut surfaces with yellow cortex and brown medulla. The pituitary gland is grossly unremarkable.

Page 6

NECK

Examination of the soft tissues of the neck, including strap muscles and large vessels, reveals no abnormalities. The hyoid and thyroid cartilage are intact. The laryngeal mucosa is unremarkable. The tongue is normal.

HEAD

Reflection of the scalp reveals no abnormalities. The skull is of normal thickness and without fracture. The brain weighs 1,090 grams. The dura mater and falx cerebri are intact, and not adherent to the brain. The leptomeninges are thin and transparent. There is no epidural, subdural, or subarachnoid hemorrhage. The cerebral hemispheres are symmetrical with a normal gyral pattern. The structures at the base of the brain, including cranial nerves and blood vessels, are free of abnormality. Sections through the brain reveal no contusions, hemorrhage, or mass lesions within the cerebral hemispheres, brainstem, or cerebellum. The cerebral ventricles are of normal caliber.

MUSCULOSKELETAL SYSTEM

The bony framework, supporting musculature, and soft tissues are not unusual. The cervical spinal column is stable on internal palpation.

SPECIMENS

At the time of examination, vitreous, peripheral blood and heart blood, and a DNA blood card are retained.

EVIDENCE

See "Electronic Database" log for evidence transferred to the investigating agency.

RADIOGRAPHS

Total body radiographs are without evidence of skeletal deformity or acute or subacute injury.

HISTOLOGY SLIDE INDEX

Slide #1 Heart

Slide #2 Liver, Left lung Slide #3 Kidneys, Right lung

MICROSCOPIC DESCRIPTION

Cardiovascular System: Sections of the right ventricle, left ventricle and interventricular septum show no significant histopathologic abnormality.

Respiratory System: Sections of the right and left lungs show no significant histopathologic abnormality.

Page 7

Kidneys: Sections of the right and left kidneys show no significant histopathologic abnormality. No polarizable material is seen.

Liver: A section of the liver shows no significant histopathologic abnormality.

TOXICOLOGY

See separate toxicology report.