



Patient: Powers, Liam Andrew

Case: A22-170

DOB: 07/31/2017

Sex: Male

Age: 4 years

Date of Exam: 03/30/2022

Time of Exam: 08:00

County: Ingham

Pathologist: David Moons, M.D.

Autopsy Procedure: Full

Persons in Attendance: Debra Parsons - Autopsy Assistant

Forensic Postmortem Examination

POSTMORTEM EXAMINATION FINDINGS

- Pulmonary congestion and edema
- Contusions on left knee, left lower leg, and right lower leg
- Postmortem tissue procurement
 - Incisions with sutures on chest
 - Removal of heart
 - No abnormality noted on evaluation of heart by cardiac pathologist (see separate Cardiac Pathology Report for details)
 - Clamp on inferior vena cava
- QIASTAT respiratory virus panel positive for adenovirus, parainfluenza virus 3, and respiratory syncytial virus A/B
 - No associated respiratory illness noted on microscopy of lungs
- Postmortem toxicology findings (see separate Toxicology Report for details)
 - Blood negative for all substances screened
 - Urine negative for all substances screened

Cause of Death: Drowning

Manner of Death: Accident

SUMMARY AND OPINION

In summary, the decedent was kayaking in a lake with an adult in icy conditions when the decedent fell out of the kayak. Law enforcement and EMS responded and the decedent and the adult were removed from the water. The decedent was transported to the emergency room where he was pronounced dead. No evidence of trauma or foul

play was reported. The decedent was taken for tissue donation prior to postmortem examination. Postmortem examination revealed congested and edematous lungs with no findings identified to indicate a significant disease process or acute traumatic injury to cause or contribute to death. QIASTAT Respiratory Virus Panel testing was positive for adenovirus, parainfluenza virus 3, and respiratory syncytial virus A/B, however, there were no finding on microscopic examination of the lung to indicate a significant acute infective process. Postmortem toxicology performed on the decedent's blood and urine was negative for all substances screened.

Based upon the information as currently known to me, it is my opinion that death was caused by drowning. The manner of death is classified as accident.

EXTERNAL EXAMINATION

IDENTIFICATION: The body was received in the supine position within a zippered body bag. The zipper of the body bag was sealed closed by a yellow plastic lock numbered "2893073". An identification tag bearing the name "Powers, Liam" was attached to the zipper of the body bag. A hospital ID bracelet bearing the same name was attached to the decedent's right wrist and a hospital trauma ID bracelet with the name "Corn silk, U D530034" was attached to the decedent's right ankle.

DESCRIPTION: The body was that of a normally developed and normally nourished white male appearing about the recorded age of 4 years 7 months. The body measured 43 inches in length and weighed 44 pounds. The body was received without clothing. The head was normocephalic and the scalp hair was blonde with loose curls and measured up to 11 inches in length. The eyes had white sclerae, pale conjunctivae, and blue irides. No bulbar or palpebral conjunctival petechiae were noted. The dentition was natural and in good condition with no obvious caries noted in the anterior teeth. No lesions of the oral mucosa were identified. The ears and nose were symmetrical and unremarkable. There were no masses discernible in the neck and the larynx was in the midline. The thorax and back appeared symmetrical. The abdomen was flat and soft. The external genitalia were those of a circumcised prepubescent male. The anus was unremarkable. The extremities appeared symmetrical with no congenital deformities or amputations noted.

IDENTIFYING MARKS: None noted.

POSTMORTEM CHANGES: The body was cold to the touch (previously refrigerated), rigor mortis was fully developed, and livor mortis was present posteriorly and fixed.

EVIDENCE OF MEDICAL TREATMENT: An endotracheal tube was in place. There were intravascular line puncture marks in both posterior hands and an intraosseous line puncture mark in the anterior right lower leg.

EVIDENCE OF TISSUE PROCUREMENT: There were incisions with sutures on the chest. Internally, there was removal of the heart with a clamp on the inferior vena cava.

EVIDENCE OF INJURY

There was a 3/4 inch diameter contusion on the anterior right lower leg, a 1/4 inch diameter contusions on the anterior left knee, and a 1/4 inch diameter contusion on the anterior left lower leg.

INTERNAL EXAMINATION

BODY CAVITIES: No adhesions or abnormal collections of fluid were in the pleural or peritoneal cavities. The body organs were in normal and anatomic position.

HEAD (CENTRAL NERVOUS SYSTEM): No abnormality was noted in the reflected scalp, calvarium, dura, meninges or the base of the skull. The brain weighed 1360 gm. The cerebral hemispheres appeared symmetrical. Examination of the brainstem and cerebellum revealed no evidence of any abnormalities. The parenchyma

appeared normal with no lesions or anatomic defects noted. The cerebral vascular system was unremarkable.

NECK: Examination of the soft tissues of the neck, including strap muscles and large vessels, revealed no abnormalities. The hyoid bone and laryngeal cartilages were intact and free of injury.

CARDIOVASCULAR SYSTEM: The heart had been removed during tissue procurement (see separate Cardiac Pathology Report provided by ARTIVION for details). The aorta appeared unremarkable. The remaining major arteries and great veins showed normal distribution.

RESPIRATORY SYSTEM: The larynx, trachea, and mainstem bronchi were unremarkable. The right and left lungs weighed 230 gm and 190 gm, respectively. The parenchyma had a normal reddish-brown appearance and spongy texture with congestion and edema noted. The pulmonary arteries were normally developed and patent. No pulmonary thromboembolus was identified.

LIVER AND BILIARY SYSTEM: The 700 gm liver had firm dark tan surfaces and an unremarkable parenchymal pattern. The gallbladder and biliary tracts were unremarkable.

GASTROINTESTINAL TRACT: The tongue, esophagus, stomach, small bowel, appendix and colon were unremarkable. The lining of the stomach had an intact and unremarkable rugal pattern and the lumen of the stomach was empty. The pancreas appeared unremarkable with a tan, lobulated parenchyma.

GENITOURINARY TRACT: The right and left kidneys weighed 70 gm and 60 gm, respectively. Each kidney had smooth cortical surfaces, normal appearing cortico-medullary regions and no abnormalities noted in the calyceal systems, pelves, ureters, or bladder. The prostate gland and testes appeared normal.

RETICULOENDOTHELIAL SYSTEM: The 70 gm spleen had smooth surfaces and normal appearing dark purple firm pulp. The 50 thymus had a smooth and glistening surface and a normally appearing tan lobulated parenchyma. The visible lymph nodes appeared normal.

ENDOCRINE SYSTEM: The pituitary, thyroid, and adrenal glands appeared unremarkable.

MUSCULOSKELETAL SYSTEM: No abnormalities were noted in the visible bony framework, musculature, or soft tissues.

SPECIMENS

Blood, urine, and vitreous fluid were retained for potential toxicology and/or other laboratory testing. Representative tissues were retained in formalin.

MICROSCOPIC EXAMINATION

CASSETTE SUMMARY:

1. Right upper lobe of lung, thymus
2. Right middle lobe of lung, spleen
3. Right lower lobe of lung, liver
4. Left upper lobe of lung, pancreas
5. Left lower lobe of lung, right kidney
6. Left kidney, Hippocampus of brain

MICROSCOPIC DESCRIPTION:

- Lungs: No significant abnormality.
- Spleen: No significant abnormality.
- Thymus: No significant abnormality.
- Kidneys: No significant abnormality.

- Liver: Single microscopic focus of mixed inflammatory infiltrate.
- Pancreas: No significant abnormality.
- Brain: No significant abnormality.

TOXICOLOGY

See separate toxicology report.

MICROBIOLOGY

A nasopharyngeal swab was obtained for QIASTAT Respiratory Virus Panel testing at Sparrow Labs.

RADIOLOGY

Not performed.

EVIDENCE

The following items obtained at autopsy were retained by this office:

- Footprints
- Photographs
- Blood spot (DNA) card

Electronically Signed by **David Moons, M.D. Deputy Medical Examiner** on 05/24/2022 at 14:17

Laboratory Case Number: 3242126	Subject's Name: POWERS, LIAM
Client Account: 17839 / spho01 Report To: Sparrow Hospital-Forensic Path ATTN: EMR 1215 East Michigan Avenue Lansing, MI 48909-7980 FX: 855-300-7312	Agency Case #: A22-170 Date of Death: 03/30/2022 Test Reason: Other Investigator: JACOB STAIR Date Received: 03/31/2022 Date Reported: 04/05/2022

Laboratory Specimen No: 41001520	Date Collected: 03/30/2022 01:30
Container(s): 01:GRT Blood,SUBCLAVICAL	Test(s): 70510 Comprehensive Drug Panel, Blood

Analyte Name	Qualitative Result	Quantitative Result	Reporting Limit	Reference Range	Units	Note
VOLATILES	Negative					
Methanol	Negative					
Ethanol	Negative					
Acetone	Negative					
Isopropanol	Negative					
AMPHETAMINES	Negative					
ANALGESICS	Negative					
ANESTHETICS	Negative					
ANTICHOLINERGICS	Negative					
ANTICONVULSANTS	Negative					
ANTIDEPRESSANTS	Negative					
ANTIDIABETICS	Negative					
ANTIFUNGALS	Negative					
ANTI HISTAMINES	Negative					
ANTIPSYCHOTICS	Negative					
BARBITURATES	Negative					
BENZODIAZEPINES	Negative					
CANNABINOIDS	Negative					
CARDIOVASCULARS	Negative					
GASTROINTESTINALS	Negative					
HALLUCINOGENS	Negative					
MISCELLANEOUS	Negative					

POWERS, LIAM

Laboratory Case #: 3242126

Printed Date/Time: 04/05/2022, 16:50

Laboratory Specimen No: 41001520

Continued..

<u>Analyte Name</u>	<u>Qualitative Result</u>	<u>Quantitative Result</u>	<u>Reporting Limit</u>	<u>Reference Range</u>	<u>Units</u>	<u>Note</u>
MUSCLE RELAXANTS	Negative					
OPIOID ANALGESICS	Negative					
SEDATIVE/HYPNOTICS	Negative					
STIMULANTS	Negative					
UROLOGICALS	Negative					

Specimens will be kept for at least one year from the date of initial report.

Laboratory Specimen No: 41001521	Date Collected: 03/30/2022 01:30
Container(s): 01:YTT Urine, Random	Test(s): 80080 Basic Drugs of Abuse, Urine

Analyte Name	Qualitative Result	Quantitative Result	Reporting Limit	Reference Range	Units	Note
AMPHETAMINES	Negative					
Amphetamine	Negative					
Methamphetamine	Negative					
MDMA	Negative					
BENZODIAZEPINES	Negative					
7-Aminoclonazepam	Negative					
Alprazolam	Negative					
a-OH-Alprazolam	Negative					
Lorazepam	Negative					
Nordiazepam	Negative					
Oxazepam	Negative					
Temazepam	Negative					
HALLUCINOGENS	Negative					
Phencyclidine (PCP)	Negative					
MUSCLE RELAXANTS	Negative					
Meprobamate	Negative					
OPIOID ANALGESICS	Negative					
6-Monoacetylmorphine	Negative					
Buprenorphine	Negative					
Codeine	Negative					
EDDP	Negative					
Fentanyl	Negative					
Hydromorphone	Negative					
Hydrocodone	Negative					
Methadone	Negative					
Morphine	Negative					
Norfentanyl	Negative					
Norbuprenorphine	Negative					
Desmethyltramadol	Negative					
Oxycodone	Negative					
Oxymorphone	Negative					
Tramadol	Negative					

POWERS, LIAM

Laboratory Case #: 3242126

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Laboratory Specimen No: 41001521

Continued..

Analyte Name	Qualitative Result	Quantitative Result	Reporting Limit	Reference Range	Units	Note
STIMULANTS	Negative					
Benzoylecgonine	Negative					

Laboratory Specimen No: 41001522	Date Collected: 03/30/2022 01:30
Container(s): 01:CTT Vitreous,EYE	Test(s): 49901 Volatiles Not Performed

Analyte Name	Qualitative Result	Quantitative Result	Reporting Limit	Reference Range	Units	Note
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< Volatile Testing Not Performed >

Due to negative blood, tissue, and/or urine volatile (Acetone, Ethanol, Isopropanol, and Methanol) results, volatile testing was not performed on the vitreous specimen.

Laboratory Specimen No: 41001523	Date Collected: 03/30/2022 01:30
Container(s): 01:GRT Blood,SUBCLAVICAL	Test(s): 49900 Not Tested

Analyte Name	Qualitative Result	Quantitative Result	Reporting Limit	Reference Range	Units	Note
< No Testing Performed	>					

Laboratory Specimen No: 41001524	Date Collected: 03/30/2022 01:30
Container(s): 01:GRT Blood,SUBCLAVICAL	Test(s): 49900 Not Tested

Analyte Name	Qualitative Result	Quantitative Result	Reporting Limit	Reference Range	Units	Note
< No Testing Performed	>					

The Specimen identified by the Laboratory Specimen Number has been handled and analyzed in accordance with all applicable requirements.

Laboratory Director

POWERS, LIAM

Case Reviewer

George S. Behonick, Ph.D., F-ABFT

Laboratory Case #:3242126

Print Date/Time:04/05/2022, 16:50

