

**\*\*\*\*\* May be disturbing to some readers: Contains information from the autopsy report & some medical references that may be disturbing for some people\*\*\*\*\***

## **Porter's Autopsy Review**

In June, we finally received the autopsy report and had the opportunity to sit down with the medical examiner to go over any questions or concerns we had. Unfortunately, the autopsy report didn't give us any answers, but it was able to rule out other events or causes of Porter's death.

Dr. Raven hypothesized that from the lividity (settling of blood) and the rigor mortis (stiffing of the muscles) Porter most likely died sometime around 2 or 3 in the morning.

Dr. Raven noted that there were no injuries or trauma seen on Porter's body. He appeared to be a healthy 2 year old boy.

When observing Porter's face she noted no areas of concern. Porter did not have petechiae (red pinpoint spots caused by hemorrhage) around his eyes or mouth. Petechia around the mouth and eyes usually indicates suffocation or asphyxiation; therefore, suffocation was ruled out as a cause of death.

Porter's head and brain were normal. There was no indication that Porter suffered swelling of the brain prior to death because the structures at the base of the brain were not herniated.

His neck showed no abnormalities, hemorrhages or trauma.

When looking at Porter's chest cavity, Dr. Raven noted "rare petechiae hemorrhages" on the thymus (organ in the chest cavity that decreases in size with age, which produces hormones to fight infections), and the anterior and posterior of the heart. Dr. Raven noted this is a typical finding in SIDS deaths, but can also be "nonspecific and doesn't mean anything." The fluid around his heart was clear and of normal proportions.

Porter's heart was intact and showed no abnormalities or "unremarkable" as Dr. Raven put it.

His respiratory system was normal and "showed no evidence of natural disease or injury."

The liver, gallbladder and biliary tree were all normal.

Porter's urinary track was "unremarkable."

Porter's gastrointestinal track was "unremarkable."

His pituitary, thyroid, adrenals and pancreas are "unremarkable."

Porter's musculature was normally developed and he had "minimal" fat on his abdominal.

Dr. Raven used the new Influenza Screen to test for strains of influenza. She found Influenza B RNA in both Porter's nose and lungs. She also ran a blood culture which showed "no growth

after 16-24 hours.” The blood culture tests for bacteria or yeast in the bloodstream that may indicate sepsis (massive response to infection) as a result of meningitis or pneumonia. The final evaluation showed no “aerobic or anaerobic growth in five days,” indicating a negative blood culture. Blood infections, that have a high mortality rate, were ruled out.

The vitreous electrolytes (fluid from the eyes), such as glucose, creatinine, sodium, potassium and chloride were normal after death. This test ruled out diabetes, problems with the kidneys or dehydration.

The final toxicology (which took three months to get) was negative for acetaminophen, amphetamines, benzodiazepines, cocaine, ethanol, opiates, organic acids & bases, salicylate and THC. This tests concludes that there were no abnormal levels of acetaminophen and Porter was not a drug user.

### *In Summary*

Becky had some concern that Porter suffocated because she found him that morning with the pillow partially covered his head. From this report we know that Porter did not suffocate. It was determined Porter was capable enough to move if the pillow bothered him.

Becky had some concern that a febrile seizure lead to the terminal event. The death rate from a febrile seizure is “extremely rare, even in high-risk children.” Dr. Raven noted that Porter’s hypothalamus was normal. Any abnormalities in the hypothalamus would indicate a possible seizure disorder which would indicate an increased risk of febrile seizures. Becky asked if it was possible that Porter had a febrile seizure and couldn’t move because of the pillow and suffocated and she ruled out suffocation because of the lack of petechiae around his eyes and mouth.

Overall, there was no indication of tissue death which is common in people who have died as a direct result of organ failure. If Porter’s heart had given out there would have been some tissue death around the heart. If the lungs were failing prior to death there would have been some indication of tissue death. From Porter’s autopsy, and confirmation from Dr. Raven, there was no conclusive tissue death anywhere thus leading to her conclusion of sudden unexpected death in childhood. She hypothesized that Porter either died from a lethal arrhythmia (myocarditis) as a direct result of influenza B.

Porter’s death certificate states:

Immediate cause of death: Sudden unexpected death in childhood

Due to, or as a consequence of: Influenza B

We plan to participate in the Sudden Unexplained Death in Childhood study (SUDC). They will issue a “study diagnosis” at the end of the year-long research project that will either concur or differ from the original consequence of death.