



Pathology/Biology Section - 2013

G166 Accentuation of Asphyxial Death by the Background Effect of Chronic Liver Disease, Splenomegaly, and Abuse of Alcohol and Drugs

Khalid Jaber, MD, Firebrigade Training Centre, Malahide Rd, Marino, Dublin, IRELAND*

After attending this presentation, attendees will appreciate the difficulty encountered in finding a constellation of anatomical findings suspicious of asphyxial death in a young person, found supine on the floor of the bedroom, with a history of important medical diseases.

This presentation will impact the forensic science community by highlighting the interplay between problematic scene findings and circumstantial history with important anatomical features. The latter present challenging constellations that could be ascribed to asphyxial death, but the decedent was also a person with established liver cirrhosis, alcoholism, and positive serology for HCV and HIV infections.

The decedent was a known drug abuser and a drug addict. He was placed on a methadone maintenance program. He was also a regular consumer/abuser of alcohol. He showed positive serology for Hepatitis C and HIV viral infections. He was diagnosed with liver cirrhosis and secondary splenomegaly. In addition, he was treated for schizophrenia and depression.

According to the female partner, she woke up partly due to his snoring and partly to step out of the bedroom for a brief interval, less than five minutes, leaving him in bed. Upon her return, he was found supine on the floor and in a collapsed state. His face was getting increasingly blue. She attempted CPR, getting instructions over the phone from a fire brigade officer who made sure she was on the phone carrying out his instructions until the arrival of the dispatched ambulance crew, which arrived within minutes.

The female partner was not trained previously in CPR and it would appear she was trying her best but realized that the deceased was slipping away. Although the ambulance crew sustained CPR until it was clear the decedent was not responding, the clinical impression of the crew was that the deceased was "dead" by the time they got to the scene. It must have been a traumatic experience to the young female partner who allegedly lost two previous male partners while in active relationships with them at different times. Review of a CCTV revealed that, approximately 36 hours prior to his collapse on the floor of the bedroom, the decedent was in an inebriated, drunken state, falling around, and being supported whenever possible by his female partner. A police car picked up both of them and drove them a short distance to the home of a relative less than three minutes away.

There are important anatomical findings identified in the autopsy mainly: florid petechial and punctate serosal; mucosal and intramuscular hemorrhages involving the face, neck, pleurae, lungs, heart, intercostal muscles, and back of the trunk; multiple external contusions that include bilateral peri-orbital contusions and other contusions identified on the head, back of the trunk, and upper and lower extremities; and, an incomplete, non-displaced, focal, small cricoid cartilage fracture, associated with overlying localized soft tissue hematoma, enlarged spleen weighing close to one kilogram, and patchy acute pulmonary pneumonia. In the neck, there were circumscribed, bilateral perivascular (adventitial and peri-carotid arterial hematoma), peri-neural (peri-vagal and peri-sympathetic ganglion hematomata), and intra-neural (intra-sympathetic ganglion and focal intra-vagal) hemorrhages seen. His postmortem blood toxicological analysis showed the following prescribed drug results: free Codeine: 0.17ug/ml, phenethylamine 0.01ug/ml, paracetamol: present, methadone: 0.37ug/ml, eddp (methadone metabolite): present, nordiazepam: present, mirtazapine: 0.08ug/ml and olanzapine: 0.05ug/ml. Ethanol analysis showed blood level of 71mg% and urine level of 168mg%.

The autopsy findings are concerning in that asphyxial death, caused by neck and chest compressions, have been seriously considered, notwithstanding the probable underlying contribution and effect of liver disease on bleeding tendencies that potentially underscores and accentuates the manifestations of impressive hemorrhages. Could the multitude of contusions influence the way the manner of death is considered in this case?

Asphyxia, Liver, Drugs