



H69 An Unusual Presentation of Asphyxia Due to Choking

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Learning Overview: Attendees will learn that the autopsy alone for postmortem analysis is only part of the death investigation. This unusual case of asphyxia emphasizes the collaborative input of investigators, detectives, medical examiners, and other health care professionals to determine the cause and manner of death.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by showing an unusual circumstance in which death was caused by asphyxia due to choking. A detailed death investigation utilizing a team of death investigators were essential to fully explain this death. This case is presented so that similar cases might be compared as well as to highlight the importance of gathering all the facts to explain unusual circumstances surrounding autopsy findings with an unusual presentation.

The decedent was a 32-year-old male with a non-contributory past medical history. He entered a publicly hosted insect (bug) eating competition in which the prize was an exotic reptile. The contest rules stated that contestants were to consume as many female pastel superworms, female orange belly hornworms, female graphite sire discoid cockroaches, or male lesser crickets in the time constraints of four minutes with one hour between each segment time. Water was allowed during the competition. The decedent won the discoid cockroach eating competition segment, began vomiting, and eventually became unresponsive and was later pronounced deceased at a hospital.

Postmortem examination revealed evidence of choking and aspiration. Scleral hemorrhages were appreciated. Arthropod body parts were aggregated in the trachea, main stem bronchus, and bilateral segmented bronchi. Petechial hemorrhages were scattered over the mucosal surface of the epiglottis and larynx. The stomach contained partial and whole cockroaches, segmented larvae, and caterpillars.

Due to the possibility of an anaphylactic reaction secondary to consuming insects, specialized testing for immunoglobulin E and trypsin were conducted and reported within normal limits.

The presence of insects in these locations is not enough to determine cause of death. Careful consideration and laboratory testing were taken to rule out allergic or anaphylactic response to the presence of insects versus aspiration of stomach contents (insects) causing asphyxia due to choking.

The death investigation was extremely important because it allowed the medical examiner to explain why insect parts were present in the airway and alimentary tract. It further helped to identify the types of insects that were present. The responding detective to the scene was able to obtain the information on the competition and the events that led to the death. The health care professionals (emergency medical services, emergency room doctors, nurses, staff) provided information on the medical events that occurred from their arrival at the scene, transportation of the decedent to the hospital, and emergency room care. Finally, the medical examiner conducted the postmortem examination correlating the autopsy findings with the circumstances surrounding the death. All the individuals involved in this case worked together in a multidisciplinary fashion to provide a complete picture of the decedent's unusual demise.

Asphyxia, Choking, Forensic Pathology