



K76 Postmortem Pediatric Forensic Toxicology

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Learning Overview: After attending this presentation, attendees will have gained an appreciation for the challenges unique to toxicological findings in postmortem pediatric cases. Attendees will learn interpretive guidelines for pediatric cases involving forensic toxicology in both a general and case-specific sense.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by further delineating the interpretive aspects of toxicological findings in the pediatric population.

In this 20th Annual Special Session within the Toxicology section, pediatric cases involving toxicological findings are discussed. As a relative dearth of interpretive information involving toxicological findings in the pediatric population exists, this session is a forum to help elucidate and clarify such issues. The format is a short case presentation or issue-specific concern, including pharmacokinetic data and other relevant ancillary information, followed by audience participation to provide interpretive clarity around case-specific impacts of the toxicological findings. This session, attended by various sections of the Academy, allows for various perspectives of case issues that lead to integrative consensus, or differing opinions, as to cause of death in children.

Four cases will be presented that highlight the difficulty in assessing the role of toxicants in each case or the lengths one must go to in some cases to reach some interpretive value. Chris Milroy, MD, LLB, Andrew Baker, MD, Loralie Langman, PhD, and Robert A. Middleberg, PhD will be reviewing cases from their experience as forensic pathologists and toxicologists that highlight the issues and confounders in the pediatric population.

Dr. Milroy will be discussing a case involving diphenhydramine with an interesting twist. While cases involving diphenhydramine in young children have been reported and summarized in postmortem literature, each case presents challenges due to the pharmacological nature of the substance and other potential co-morbidities.

Dr. Baker will focus on an unresolved case involving an elevated sodium finding in vitreous humor in a 6-year-old. He will explore possible explanations given the case history and seek audience input to further case closure.

Dr. Langman will introduce a case of *in utero* death. As these cases are particularly challenging in respect to toxicological findings, continued discussions on this subject matter will hopefully bring some clarity to case findings in these deaths.

Dr. Middleberg will present a case of a 14-year-old female who was tortured and killed by her mother and mother's boyfriend. The dismembered body was found to contain what appeared to be high concentrations of diphenhydramine. Questions surrounding the findings were significant in respect to manner and cause of death and the ultimate outcome of the case.

Pediatric, Toxicology, Postmortem