G47 Histologic Evidence of Repetitive Blunt Force Abdominal Trauma in Three Pediatric Fatalities

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After attending this presentation, attendees will understand the importance of retaining sections of the retroperteneum for microscopic examination.

This presentation will impact the forensic community and/or humanity by increasing awareness of recognizing certain patterns of fibroblastic proliferation and reactive vasculature encountered if proper sections are taken in cases of repeated child abuse.

In cases of fatal child abuse, the discovery of external blunt force trauma, skull fractures, subdural hematomas, abdominal hemorrhage, as well as retinal hemorrhages are all well described in the pediatric and forensic literature. The gross findings at autopsy, when taken into consideration with scene investigation and interviews with caregivers, point to a clear manner and cause of death in many cases. In such cases, the discovery of changes attributable to older abusive injuries helps support a conclusion of death due to inflicted trauma. Three cases of fatal child abuse in which acute blunt force abdominal trauma was the cause of death and the manner of death was homicide are presented. In each of these cases, careful examination with proper sectioning and microscopy of select abdominal tissues revealed the presence of fibroblast proliferation, increased vascularity, and hemosiderin laden macrophages indicating abdominal injuries older than the acute, fatal blunt force trauma. Iron and trichrome stains were used to highlight hemosiderin and fibrosis in all three cases; however the recognition of a fibroblast proliferation and a reactive vascular pattern was best seen on routine hematoxylin and eosin stains. These findings at autopsy, along with good investigative evidence, were helpful in establishing the diagnosis of chronic physical abuse.

Fibroblast, Proliferation, Child Abuse

 ** Presenting Author*