G5 Child Deaths Due to Television Falls With Injury Patterns That Mimic Child Abuse

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After attending this presentation, attendees will have learned about two cases illustrating the types of injuries sustained when televisions fall on small children and their similarity to inflicted child abuse trauma.

This presentation will impact the forensic community by explaining how blunt trauma secondary to falling televisions is occasionally reported in the clinical literature; however, descriptive reports of the patterns of such injuries are limited and such cases may mimic those considered "typical" of inflicted trauma.

Data from the CDC indicate that accidents and inflicted trauma account for 33 percent and 5-8 percent of childhood deaths, respectively. Blunt trauma secondary to falling televisions is occasionally reported in the clinical literature, however, descriptive reports of the patterns of such injuries at autopsy is limited. Data from the clinical literature indicate that under such circumstances, blunt head trauma is far more common than blunt chest or abdominal trauma. The severity and patterns of injury identified in such cases may mimic those considered 'typical' of inflicted trauma. As such, careful integration of data collected from the death scene (including witness statements), from hospital records, and all components of the autopsy is necessary to ensure accurate and defensible determination of cause and manner of death. Two cases will be presented to illustrate the types of injuries sustained when televisions fall on small children.

Case #1: A 13-month-old male was at his aunt's house, playing with other children. A family member heard a loud crash, after which he observed a 21-inch cathode ray tube-type television lying on the child's head. Emergency Medical Services (EMS) was summoned, and the child was transported to the nearest Emergency Department (ED). After initial evaluation, he was admitted to the Intensive Care Unit (ICU). A computed tomography (CT) scan revealed left-side calvarial skull fractures, left orbital skull fracture with slight proptosis, laceration of the left transverse dural venous sinus, and expansile intracerebellar hematoma, for which he underwent suboccipital craniotomy. Despite supportive measures, he expired 15 days after hospital admission. Pertinent autopsy findings included posterior scalp abrasions; frontotemporoparietal and occipital scalp and subgaleal hemorrhages; simple linear, minimally displaced fractures of the left lateral aspect of the frontal bone and orbital shelf; complex comminuted fractures of the left sphenoid and temporal bones; extensive comminuted fractures of the squamous portion of the occipital bone; subdural and subarachnoid hemorrhages; cerebral edema; cerebellar sequelae of neurosurgical evacuation of intraparenchymal hematoma; bilateral optic nerve sheath hemorrhages; no retinal hemorrhages. Evaluation of 3-dimensional reconstructions of the admission head CT scan demonstrated that many of the fractures identified at autopsy were altered (and thus appeared worse) by brain swelling, and sutural diastasis along a Mendosal suture. The cause and manner of death were certified as *blunt head trauma* and *accident*, respectively.

Case #2: A 32-month-old female was at home with her father and four other children; she was unsupervised while watching television. The father heard a crash, after which he entered the room and found the child face-up on the floor with a 27-inch cathode ray tube-type television on the floor next to the child. EMS were summoned, the child was transported to a local ED, and admitted to the ICU. An admission CT scan demonstrated complex comminuted multifocal left-side skull base fractures, epi- and subdural hemorrhages, massive cerebral edema with midline shift, and brainstem hemorrhage. Despite supportive measures, her neurologic condition rapidly declined, and a determination of brain death was supported by clinical evaluation. She died two days after hospital admission. Pertinent autopsy findings included bilateral bulbar and palpebral conjunctival ecchymoses; left frontal scalp contusion; frontal and occipital subgaleal hemorrhages; large right epidural hematoma; cerebral edema with bilateral uncal herniation; fragmentation of the cerebellar folia; multifocal cerebral and brainstem hemorrhages; left periorbital soft tissue hemorrhage; scant right perioptic nerve sheath hemorrhage; no retinal hemorrhages. The cause and manner of death were certified as *blunt force injuries to the head* and *accident*, respectively.

Child Abuse, Accident, Television

 ** Presenting Author*