H46 Mortality Related to Falls From the Balcony of Children Younger Than 18 Years of Age

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After attending this presentation, attendees will understand the importance of the prevention of childhood deaths due to falls.

This presentation will impact the forensic science community by providing data related to childhood deaths due to falls from balconies.

In this presentation, 32 cases from the Istanbul Morgue Department's archive of victims less than 18 years old who fell from balconies were analyzed and compared to other reports in the literature for age, sex, cause of death, time of year, hospitalization period, autopsy findings, toxicology results, and relevant social responsibilities. Similar to developed countries that rank falls as the fourth-leading cause of death in children, falls are a major problem in Turkey.[1] Falls account for 5.9% of all childhood deaths.[2] Childhood falls are the source of 25%-34% of emergency responses in Unites States.[3] One study conducted in Turkey found that 11.9% of all deaths occurring between the ages of zero to ten years are the result of a fall from a balcony, with the percentage increasing each year.[4,5] In a study by Yayci et al. in Istanbul, falls ranked fourth and represented 15.5% of all trauma-related deaths reported during 2001-2005.[6]

This study retrospectively analyzed 34 autopsies performed during 2008-2012 in the Istanbul morgue in which a fall resulted in the death of a child less than 18 years of age. This analysis included each victim's age, sex, cause of death, time of year, hospitalization period, physical findings at autopsy, and toxicological facts. Eighteen cases (52.9%) of the victims were female and 16 (47.1%) were male. The youngest victim was 11 months old and the oldest was 17 years, 11 months old. The cause of death in 31 (91.2%) of the cases was extensive body trauma and in three cases (8.8%) death was reportedly due to blunt force head trauma. While there was no information about the height of the building where 22 (64.7%) of the victims had fallen, there was documentation that five of the victims had fallen from the 5th-floor balcony. The lowest height was the first floor and the highest was reported to be a 7th-floor balcony. Distribution according to time of year when the deaths occurred showed the highest rate of falls occurred in summer (n=15) and the lowest in winter (n=4). The maximum duration of hospitalization was reported to be 33 days and 22 (64.7%) of the cases had no record of hospitalization at all. Toxicological examination was insignificant in 20 (58.8%) of the cases while three (8.8%) cases were positive for therapeutic levels of medication; one (2.9%) case was positive for ethanol and one (2.9%) was positive for n-butane.

Many studies have concluded that the reason for an increase in fatalities due to falls during the summer months is because children use balconies more often during the warm season.[7] Reports prepared by American Academy of Pediatrics Committee on Injury and Poisoning Prevention discuss in detail measures and recommendations on ways to reduce falls from windows, balconies, and rooftops.[8] From a social perspective, to reduce the number of fall-related deaths, various public-awareness training programs should be prepared. Additionally, building-code regulations related to safety should be broadened and enforced.

References:

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