



## Pathology & Biology Section – 2004

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### G5 Pediatric Homicides Related to Burn Injury

*William F. Zaloga, DO\**, Wake Forest University Baptist Medical Center, Department of Pathology, Medical Center Drive, WinstonSalem, NC 27157; *Kimberly A. Collins, MD*, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425

After attending this presentation, attendees will be able to assign manner of death with more confidence in pediatric homicides related to burn injury.

This presentation will impact the forensic community and/or humanity by adding to and supporting the current literature of pediatric burn related homicides.

Burn related injuries and fatalities are usually thermal but may be placed into six categories: fire (including smoke inhalation injuries), scald, contact with a hot object, electrical, chemical, and ultraviolet radiation (sun). Many injuries are mistakenly referred to as “accidents” because they occur suddenly and are seen as unpredictable and uncontrollable; however, injuries often occur in predictable patterns.

We reviewed all forensic cases referred to the Medical University of South Carolina Forensic Pathology Section over the 28-year period from January 1975 through December 2002. All cases with victims 17 years of age and younger were analyzed and included in the study. We examined the age, sex, and race of the victims; type of burn injury; reported location; time of year; cause and manner of death; scene history; any perpetrator; injury-death time interval; and the autopsy and toxicology findings.

In our study there were 124 cases of pediatric burn related fatalities. The ages ranged from 6 months to 17 years. Categorized, the cases were 121 fire related fatalities (97%, 1 fire due to high voltage electrocution), and 3 scald fatalities. There were no burn related fatalities from contact with hot objects, chemicals, or ultraviolet radiation. Ninety of the burn related fatalities were in the 0-5 year age group (73%), with a peak (29 cases) in the 2 year age group.

The manner of the burn related deaths was also analyzed with 108 accidents, 12 homicides, and 4 undetermined. No cases were classified as suicide. Eleven of 12 burn-related homicides also occurred at the home (9 of 12 fire related and 3 of 12 scalds) with all of the victims in the 1-8 year age group. The perpetrator of the arsons was the mother in 5 cases, the sister in 1 case, and undetermined in 2 cases. Homicide involved a car fire in 1 case in which the father caused an explosion with an accelerant. The scald death perpetrators were the father, mother’s boyfriend, and an aunt.

This retrospective study and review of the literature may reveal patterns useful for evaluation of manner of death. By recognizing scene characteristics, potential perpetrators, and children at risk we can better classify pediatric burn related fatalities.

#### **Pediatric, Burns, Homicide**