The prevalence of driveway back-over injuries in the era of sports utility vehicles.


Abstract

BACKGROUND:
Small children are vulnerable to serious accidents when a motor vehicle is placed in motion in a driveway. We describe a series of such accidents, consider the predisposing factors, and analyze the outcomes.

METHODS:
We conducted a retrospective review of the trauma database of a large, level I, freestanding children's hospital with specific attention to driveway auto-pedestrian accidents.

RESULTS:
During an 8-year period, 495 children were treated for injuries sustained in auto-pedestrian accidents, with 128 occurring in the driveway. The children's median age was 2.9 years, with 54% of the injuries sustained by boys. These often serious accidents carried an overall mortality rate of 6%. The most common injuries were abrasions, blunt head injury, and fractures. Chest trauma was associated with the highest mortality (11%), and both chest and abdominal trauma had the highest median Injury Severity Score of 13. Orthopedic injuries were the most common reason for operative intervention. Thirty-one percent of the children required intensive care unit monitoring, with their average unit stay being 3.9 days. Cars, trucks, and sports utility vehicles comprised 55%, 25%, and 12% of the accidents, respectively. Truck accidents carried the highest mortality rate (19%). Accidents were more likely to occur between 3:00 and 8:00 pm, between Thursday and Saturday, and between May and October. An increasing number of accidents occurred during the last 4 years of the study.

CONCLUSIONS:
Driveway injuries are an underrecognized often severe form of auto-pedestrian accidents. To prevent these family tragedies, drivers of large vehicles with children younger than 12 years old should be extremely attentive and account for children outside the vehicle before moving.

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