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Letters to the Editor

Pediatric Sledding Injuries

To the editor:

Sledding is a common childhood winter activity in New England, especially when the region receives significant snowfall. As with any outdoor recreational activity, sledding is not risk free. Several studies have reported significant injuries resulting in hospitalization rates between 2.5% and 7.4%.^{1,2} The goal of this study is to identify the demographics of the pediatric sledding injury population, to determine the mechanisms and patterns of injury, and to identify potential injury prevention strategies.

This study was a retrospective review utilizing the pediatric trauma registry for all ages less than 16 years at a regional Level I trauma center from 1993 to present. Patient demographics, mechanisms of injury, injury severity scores (ISS), pediatric trauma scores (PTS), pediatric intensive care unit (PICU) and total hospital length of stays, treatment patterns, and outcomes were recorded. Twenty-seven patients were identified as being admitted for sledding-related injuries. A total of 53 injuries were documented with an average hospital length of stay of 5.3 days. Collision with a stationary object (i.e., tree, post, building) was the most common mechanism of injury (63%). Two or more body regions were injured in 63% of patients. The head and neck were the areas most commonly injured (60%).

Intra-abdominal injuries, all of which were successfully managed non-operatively, included two liver lacerations, two splenic lacerations, one kidney injury, and one duodenal hematoma. Eleven patients required admission to the PICU for an average of 4.9 days. Two patients required operative intervention, one for femur fracture fixation, and another for intracranial monitor placement. The one fatality resulted from massive brain injury.

Sledding is thought of by many individuals as an enjoyable risk-free wintertime activity; however, it has been demonstrated that significant injuries, including death, can occur.^{3,4} In our study, one death occurred secondary to massive brain injury when a child was struck by a motor vehicle. Injury to this area of the body is a result of the child riding prone, head first on the sled, usually without a helmet. Two studies show a large proportion of extremity injuries related to sledding.^{3,4} In our series of 27 patients, only three children had extremity injuries, one that required operative intervention for a femur fracture. Injuries to the extremities result when the rider is positioned supine, feet first on the sled.

According to data from the U.S. Consumer Product Safety Commission, there are approximately 55,000 emergency room visits each year related to sledding injuries, 15% of which are head injuries.⁵ Since helmets have been

shown to be effective at preventing bicycle-related head injuries, a protective helmet would most likely result in a reduction in head injuries related to sledding.

We recommend that sledders, and those supervising, should select appropriate sledding sites free of trees, posts, and buildings, as well as away from road traffic. Also, we believe that the use of helmets while sledding should be encouraged and that this may reduce the risk of head injury from an otherwise enjoyable activity.

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