



Injury Briefing

A review of the latest studies from Dr. Michael D. Berry.

Kids Have High Risk of Brain Injury After Auto Collisions

Pediatric trauma is a growing public health concern. A previous study found motor vehicle accidents to be the most common cause of traumatic injuries in children admitted to Intensive Care Units (ICU). New research adds to the understanding of pediatric trauma by outlining a profile of pediatric trauma victims and verifying the likelihood of trauma of children involved in collisions on a high traffic roadway.

This descriptive cohort study involved emergency medical responses to incidents on the Rio-Niterói Bridge, a high traffic area in Rio de Janeiro, Brazil. The incidents included in the study involved at least one child under the age of 12, and occurred between March 2002 and March 2003. Cases were stratified by patient age and by whether or not traumatic injury occurred. Additional information was collected about the injury, such as region and type of injury.

Trauma accounted for 514 of the 1,244 emergency medical responses included in the study. 52 of these involved children under the age of 12 years. Half of the victims were between the ages of 6 and 12 years. Children were unrestrained backseat passengers in 62% of the accidents. The most common injury sites were the extremities, followed by facial and head injuries. Pre-hospital procedures were performed on 62% of the patients, and primarily involved immobilization on a long spine board or with a cervical collar. 44% of the children required transportation to the hospital.

Although no deaths occurred in the sample discussed in the study, all of the children sustained – at the least – mild traumatic brain injury. This could lead to a wide range of outcomes for the children involved. The researchers conclude that heavy traffic roadways are clearly an unsafe setting for children, with children at significantly higher odds than adults of being treated for trauma following a highway collision. They recommend that emergency medical providers be prepared with specialized education and equipment to treat children with traumatic injuries.

Junior IF, et al. Pediatric trauma due to motor vehicle accidents on high traffic roadway. Einstein (São Paul) 2012;10(1):29-32