

A STUDY OF LONG BONE INJURIES AMONGST CHILDREN INVOLVED IN ROAD TRAFFIC ACCIDENTS IN KLANG POPULATION

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ABSTRACT

Road traffic injuries are the leading cause of morbidity, disability and mortality worldwide amongst the young and the most vulnerable road traffic users are pedestrians, motorcycle riders and bicyclists. This retrospective study reviewed the epidemiological data of long bone injury cases amongst children who were admitted to orthopedic ward in a tertiary hospital at the central region of Malaysia following road traffic accident to analyze the pattern of injury and morbidity outcome to predict the effect of their injuries to their school attendance and academic performance. A total of 281 patients were included in the study with a mean age of 14.36 years (SD: 2.57 years). There was a male predominance in all age groups. The most common vehicle involved was motorcycles with a significant prevalence of underage motorcycle riders. Humerus fracture was more common amongst the younger age groups, whereas forearm fractures and lower limb fractures involving the femur, tibia and fibula were more prevalent amongst the adolescents. The mean hospital stay was 6.98 days (SD: 7.09 days) and mean medical leave issued was 111.39 days (SD: 71.36 days). The patients had an average of 5 clinic visits after discharge (SD: 2.75 days). 4.6% of all patients had suffered permanent physical impairment with 8 of them having physical impairment directly related to long bone injury. Linear regression test showed no significant association between the length of school absence to academic performance in school-going children with long bone injury. In conclusion, there is a variation in pattern and severity of pediatric trauma across the age groups. The high prevalence of underage motorcycle riders suggests that a concerted effort should be undertaken to improve public awareness about road safety to implement primary injury prevention and to promote pediatric safety measures in all motor vehicles.

Keywords: paediatric trauma, fractures, academic performance