Association of Extremity Injuries with Safety Gear and Clothing of Hospitalized Motorcycle Riders: A Prospective Study

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Abstract : During the last few years there has been a dramatic increase in the number of motorcyclists in Sri Lankan roads and thus an increase of motorcycle accidents (MCAs) with a heavy death and casualty toll. Extremity injuries due to MCAs cause a heavy burden on government hospitals. However, data on MCA injuries are limited. This study tries to determine the relationship between extremity injuries with protective gears and clothing motorcycle riders were wearing at the time of the accident. Data were collected from 410 motorcycle riders and passengers involved with MCAs and admitted to orthopedic and emergency observation wards in Teaching Hospital Kurunegala with extremity injuries between 1st February 2015 and 31st July 2015 using an interviewer administered questioner. Data were analyzed using SPSS version 17.0. Distal radial fracture is the most common upper extremity injury (12%), and Tibial fracture is the most common and severe lower extremity injury (23%). Very few participants were wearing safety gloves (2%) and jackets (10%). Most of the participants were wearing slippers (66%), short sleeved upper clothing (96%) and light cloth trousers (49%). According to Chi-square test associations were found between footwear and foot injuries (p-value - 0.001, Cramer's v-value - 0.203) and safety jacket and upper extremity injuries (p-value - 0.002, Cramer's v-value - 0.177). The results indicate that using safety gear can minimize the number of injuries in MCA victims. Thus it is necessary to ensure that motorcycle riders and pillion riders use proper safety gear.

Keywords : extremity injuries, fractures, motorcycle accidents, safety gear
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