

ORIGINAL ARTICLE

## Epidemiology of Head and Neck Fractures Caused by Motorcycle Accidents

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### Abstract

**Introduction:** Injuries resulting from motor-vehicle accidents are a growing burden to health all over the world. Each year, many people get severely injured or die due to road traffic accidents. Therefore, we aimed to evaluate the demographics of head and neck fractures caused by motorcycle accidents. **Methods:** In the present retrospective cross-sectional study, all the patients who were referred to emergency department, during the time from March 2013 to March 2014, with head and neck injuries due to motorcycle accidents were included using census sampling. A checklist consisting of demographic data, trauma mechanism, time of trauma, being the driver or the passenger, using safety equipment, head and neck fractures, accompanying injuries, imaging findings, and final outcome was filled for all patients using their medical files, and the data were used for descriptive analysis. **Results:** 386 patients with the mean age of  $28.4 \pm 10.79$  years were evaluated (84.4% male). Most of the patients were under 30 years old ( $p = 0.001$ ). Spring, with 152 (39.4%) cases, had the highest rate of accidents among the seasons. 223 (57.8%) accidents happened in the daytime ( $p = 0.037$ ). Only 191 (49.5%) patients had used helmets. The most frequent fracture was cervical vertebrae fracture with 61 (15.8%) cases. Finally, 207 (53.6%) of the patients were discharged from emergency department after diagnostic and therapeutic measures were taken. 175 (45.4%) cases were hospitalized in other departments for further treatments and were later discharged with good general condition. 4 (1%) cases of mortality were recorded. **Conclusion:** The results of the present epidemiologic study reveal that the prevalence of head and neck fractures in motorcycle accidents is higher in young people, male sex, and those who do not use safety equipment. The most common site for head and neck fractures are cervical vertebrae, skull, and face bones, respectively.

**Key words:** Fractures, bone; neck; head; accidents; wounds and injuries

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