

ORIGINAL ARTICLE

Cause and Final Outcome of Trauma in Patients Referred to the Emergency Department; a Cross Sectional Study

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Abstract

Introduction: Today trauma is considered as the first cause of death and disability of active population in developed and developing countries. Using preventive procedures in trauma events are effective when acute information and statistics present regarding types of trauma and their outcomes in the society. Thus, the present study was designed to assess the prevalence of trauma reasons and its outcome in traumatic patients hospitalized in three emergency departments of Isfahan, Iran. **Methods:** This cross-sectional study was performed on 1363 patients referred to three emergency departments of Isfahan during October, November, and December of 2010. Data collecting was done by using a checklist including demographic data, trauma mechanism and location, patients' transportation, anatomic site of injury, and patients' outcome after 24 hours. The data was analyzed using SPSS 16. **Results:** 1363 traumatic patients with mean age of 30.5 ± 17.35 years (73.6% male) were studied. The mean time from event to reaching the ambulance was 9 ± 7.81 minutes and average time of patient's transportation to the hospital 27.07 ± 14.49 . Motor vehicle crashes and falling from height were the most common trauma mechanisms and mortality ($p < 0.001$). The rate of mortality and hospitalization in men respectively were 7 and 3.4 times more than women, ($p = 0.04$). 1235 patients (90.6%) were discharged with good general condition. The rate of mortality and intensive care need were estimated 0.66% (9 patients) and 6.82% (93 patients), respectively. The most numbers of death were happened in 15-24 years ($p < 0.001$) and the most hospitalizations in 25-44 years ($p < 0.001$). Chest and head traumas were the most common causes of death. **Conclusion:** The study shows that motor vehicle crashes and falling from height in more than 80% of cases were the most frequent causes of trauma in patients referred to the emergency departments of these three hospitals. Also, the above mentioned were the most frequent mechanisms of trauma in died and intensive care needed patients. Above 90% of patients were discharged with good general condition.

Key words: Multiple trauma; patient outcome assessment; injuries; emergency service, hospital; cause of death

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