

# **An Epidemiologic Study of Trauma in Elderly Diabetic Patients; a Preliminary Report**

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## **Abstract**

**Introduction:** Elderly diabetic patients are prone to trauma due to background illnesses or physical disabilities. In the present epidemiologic study, we aimed to evaluate pattern of trauma in elderly diabetic patients referred to the emergency department of Poorsina Hospital, Rasht, Iran, 2011.

**Methods:** This cross-sectional study was performed on the diabetic patients over 60 years old. Demographic data, trauma characteristics, mortality, need for blood transfusion, and the time interval between admission and death, were gathered. Finally, the risk factors of the mortality were evaluated.  $P < 0.05$  was considered as the significance level.

**Results:** 268 patients with mean age of  $69.94 \pm 7.18$  years were evaluated (58.6% female). Most common trauma mechanism was same level falling (40.3%); most common location for trauma was urban streets (35.8%); most common anatomic site were extremities (45.6%); and the season with highest trauma occurrence was winter (28%). 14.2% of the patients needed blood transfusion and 6.3% of the patients finally died. Mean hospitalization duration in the department was  $3.72 \pm 5.14$  days (between 6 hours to 53 days). There was a significant correlation between mortality of the elderly diabetic patients and sex ( $p = 0.012$ ), anatomic site of trauma ( $p = 0.047$ ), number of injured site ( $p = 0.030$ ), need for blood transfusion ( $p < 0.001$ ), systolic blood pressure  $< 90$  mmHg ( $p = 0.017$ ) and heart rate  $> 100$ /minute ( $p < 0.001$ ).

**Conclusion:** The results of this study, show that the most common trauma mechanism was same level falling, the most common site of trauma was streets and other places in the city, most common anatomic site for trauma were extremities; the season with highest trauma occurrence was winter. There was a significant correlation between mortality of patients and sex, anatomic site of trauma, number of injured site, need for blood transfusion, systolic blood pressure  $< 90$  mmHg and heart rate  $> 100$ /minute.

**Keywords:** Diabetes mellitus; wounds and injuries; aged; epidemiology; emergency department