

## **Evaluation of the factors affecting the mortality of blunt chest trauma and its consequences in people over 50 years old referred to the emergency department of Fatemi Hospital in Ardabil from march 2021 to march 2022**

### **Abstract**

**Background:** There are many risk factors that affect morbidity and mortality in non-penetrating chest trauma. Apart from patient age, other important variables include the presence of bone fractures and the number of fractures, mechanical ventilation, as well as pre-existing chronic lung diseases, head injury, hypotension, and extrathoracic injuries were accompanied by high morbidity and mortality in various studies.

**Aim:** The aim of this study was to investigate the complications of non-penetrating chest injuries and the risk factors of these complications.

**Materials and methods:** All patients over 50 years of age who went to the emergency department of Fatemi Ardabil Hospital from march 2021 to march 2022 due to non-penetrating chest trauma were included in the study to be evaluated in terms of mortality risk factors and complications of non-penetrating chest trauma.

**Results:** 142 patients with blunt chest trauma were included in this study. 111 cases were men (78.2%) and 31 cases (21.8%) were women. The average age of the patients was  $64.88 \pm 5.39$  years. The predominant GCS level of patients with 119 patients (88.8%) was 15.15, but in 15 patients (11.2%) loss of consciousness was reported upon entering the emergency room. 55 cases (38.7 percent) of conflicts, 52 cases (36.6 percent) of accidents and 35 cases (24.6 percent) of falling were reported. Among the late manifestations, hypotension was reported in 4 cases (2.8%), JVP prominence in 3 cases (2.1%), and subcutaneous emphysema in one case (0.7%). The severity of trauma was based on TTSS score in 74 cases (52.1%) were reported as mild to moderate (grade 2 and 3). The involved side was reported unilaterally in 127 cases (89.4%) and 22 patients (15.5%) died. The results of logistic regression showed that the only effective factors in the outcome of life and death of the investigated patients in terms of demographic and clinical variables were the history of heart disease, greater severity of trauma based on the TTSS score and bilateral involvement of the patients, and other variables had a significant relationship with this. have not had

**Conclusion:** In patients over 50 years of age, blunt trauma to the chest, history of cardiovascular disease, greater severity of trauma and bilateral involvement lead to an increase in the probability of death of patients.

**Key words:** Prognosis-Non-penetrating trauma-Risk factor-Trauma severity