Serum lactate level and its association with complications and mortality of trauma in traumatic patients referring to Fatemi hospital in 95-96

**Background & Objective:** The shock causes inadequate tissue oxygenation, resulting in tissue hypoxia, anaerobic metabolism, and lactate production. Lactate is a diagnostic and predictive marker for sepsis and trauma. Patients with trauma require a quick and early evaluation. The aim of this study was to evaluate the serum level of lactate and its relationship with complications and mortality in trauma patients referred to Fatemi Hospital.

**Methods:** In this cross-sectional descriptive study, 80 patients were enrolled and vital signs were recorded. Patients admitted to hospital were measured by serum lactate and recorded during the hospitalization of the patients' mortality and hospital admission days. Finally, the data were analyzed. The statistical analysis of the software was done.

**Results:** In this study 39 patients were male and 41 female. The mean age of patients was 45.42 with a standard deviation of 15.34. For oxygen saturation, 54 patients had normal sucrose and 26 patients had low suction. 18 patients with GCS under 9 and 62 were over 9, 57 patients with a hospital stay of less than 10 days, 16 patients admitted for 10 to 20 days, and 7 had a stay longer than 20 days. 11 patients died and lactate level in hospitalized patients, 4.2 was measured with a standard deviation of 2.18. There was a significant relationship between serum lactate level and hospitalization time.

**Conclusion:** Blood lactate levels can be used as a predictor of hospitalization time in patients with trauma.

**Key words:** Trauma, lactate serum level, mortality