Evaluation of MGAP and GAP trauma scores to predict prognosis of multiple-trauma patients in Fatemi hospital of Ardebil

Abstract

Background: Scoring systems for trauma patients referred to the emergency department at the time of admission are essential to assess the prognosis of these patients. For this purpose, various scoring systems such as GAP and MGAP have been proposed in recent years.

Aim: In this study, we examined and compared the value of GAP and MGAP scoring systems in predicting the mortality of multiple trauma patients.

Materials and Methods: Information was extracted from all patients who referred to the emergency center of Fatemi Hospital in Ardabil in 2020 and were admitted to this center with a diagnosis of multiple trauma. The GAP and MGAP scores for all patients were calculated using the obtained data and then compared between the deceased patients and the surviving patients.

Results: A total of 807 trauma patients were evaluated in this study. The mortality rate was 6.9%. The main finding of the present study was that GAP and MGAP scores were lower in deceased patients compared to surviving patients. Both scoring systems can be used effectively and efficiently in predicting patient survival in the emergency department. The area under the ROC chart for GAP and MGAP was 0.887 and 0.899, respectively (p less than 0.001 for all three items), all of which are in the desired range. The best cut points for GAP and MGAP were 18.5 and 22.5, respectively.

Conclusion: it can be concluded that both GAP and MGAP scoring systems have an acceptable ability to predict the outcome of trauma patients referred to the hospital emergency department and therefore they can be used to predict the probability of death at the beginning of the visit. . The best cut points for GAP and MGAP were 18.5 and 22.5, respectively.

Key words: Trauma, GAP, GCS, MGAP, Trauma patients