

Predicting Mortality in Multi-Trauma Patients by Using Sartorius Scoring System

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To the Editor

Accidents and traumas can, on the one hand, cause physical and psychological damages, and on the other hand, result in destruction of capital and economic loss. Each year, approximately 1.2 million people are killed and over 50 million are injured or disabled due to traumas from car accidents. Most deaths caused by trauma usually occur before reaching the hospital or within the early hours after the injury [1,2]. Pre-hospital emergency technicians should rapidly assess the patient in order to identify the critically ill patients requiring rapid transport. However, identification of patients with major trauma remains as a challenge because the majority of patients suffer from hidden and unpredictable injuries that can complicate the initial evaluation of patients within the early hours after the injury [3].

Using simple and functional trauma severity scoring systems can help physicians with making decisions about the duration of treatment. These scoring systems for trauma patients can be used in two situations: one at the scene of the accident and before transferring the patient to the hospital for making a decision about how to transfer him/her to the destination center, and the other in the hospital's emergency room for making a decision about the patient's prognosis and severity of injury, preparing him/her for transfer to the operating room, and informing the patient's family about the patient's condition [4]. With this end in view, various systems have been designed, though some of them require complicated and time-consuming calculations [5,6]. MGAP (Mechanism of Trauma, Glasgow Coma Scale, Age, and Systolic Blood Pressure) is one of the trauma severity scoring systems developed by Sartorius et al. in 2010. According to mechanism, the scoring is as follows: 4 scores is given to blunt trauma, 0 score to penetrating trauma, 5 scores to ages over 60, GCS: the score equivalent to patient's GCS and systolic blood pressure (5 scores for >120 and 3 scores for 60-120). Total scores are divided into 3 groups: 1. Score 23-29: low-risk group with mortality of 2.8%. 2. Score 18-22: average-risk group with mortality of 15%. 3. Score < 18: high-risk group with mortality of 48%. Although this system is simple, it can predict mortality in trauma patients in hospitals with a high accuracy and reliability [7].

Using the Glasgow Coma Score, Age and Systolic Blood Pressure (GAP), Kondo et al. conducted a study in 2011 on using modified trauma scoring system for predicting hospital mortality in patients. They concluded that, compared to previous trauma severity scoring systems, GAP score could accurately predict in-hospital mortality in trauma patients [4].

Considering the recent scoring systems, it seems that promoting the use of these systems by pre-hospital emergency technicians could be really helpful in approving and utilizing them.

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