Objective: Blood pressure is an important indicator of the likelihood of survival in trauma patients. The objective is to determine how low or high blood pressure would affect penetrating trauma patients, when the transportation time to a medical facility is more than 30 minutes. We hypothesize that higher blood pressure correlates to high stability of patients, and if SBP is lower than a certain critical point, the rate of survival decreases significantly.

Method: We conducted an observational cohort study using data collected from Canada’s level 1 trauma centres, examining adult (>16 years) penetrative trauma cases where the transport time to the hospital was 30~60 minutes. Adjustments were conducted to compensate for age, sex, severity of injury and detailed transport time to examine as specifically as possible the relationship between blood pressure and mortality.

Results: We examined ___ cases of penetrative trauma injuries - the median SBP is expected to be around 130mmHg. The likelihood of survival should drastically decrease at the cutoff point of around 100mmHg, with mortality increasing almost exponentially with further decrease of SBP. Patients SBP of 150mmHg or higher had much higher stability. We expect to find that small differences in time taken to reach trauma centres have higher impact on patients with lower blood pressure.

Conclusion: Patients with SBP below 100mmHg are at exponentially higher risk of mortality than those with higher SBP - they should be transported directly to dedicated resuscitation areas of trauma 1 centres, and more advanced treatment on-site is also advised.

Themes:
Check (highlight) the most applicable theme according to the abstract.

| Innovation and Technology | Health and Wellness | Culture and Society | Sustainability and Conservation |

Comments:
This abstract is clear, logical and well-written.