

LETTER TO THE EDITOR

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Reviewing blunt abdominal injuries in the National Trauma Registry of Iran

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To the Editor-in-Chief

We read with interest Chardouli et al.'s paper entitled "A review on using ultrasound for evaluation of pediatric blunt abdominal trauma" (1) and enjoyed it a lot. Now, we intend to add some of the results of our registry to their invaluable article.

The National Trauma Registry of Iran was launched in 2016 at Sina Trauma and Surgery Research Center (2), and 24 different hospitals from various provinces collaborated in this project. Happily, more than 32,000 patients have been included so far, 4603 of which belong to Sina Hospital (3-5). Furthermore, ample evidence shows that blunt abdominal injury is one of the most common presentations in the emergency rooms (6). Hence, we analyzed our data to find the severity of blunt abdominal injuries compared to other injuries. Among 4603 patients, 208 people had blunt trauma, and 17 were in the abdominal region.

The mean injury severity score (ISS) of patients with blunt abdominal injuries was 1.5 (standard deviation (SD)=1.1). Also, the mean ISS of patients with abdominal injuries with other mechanisms (other than blunt traumas) was 3.3 (SD=2.5). The difference was statistically significant ($P=0.005$) (Table 1).

Moreover, the median of ISS among patients with blunt abdominal injuries was 1.0 (interquartile range (IQR)=0.0). Also, the median of ISS among patients with abdominal injuries with other mechanisms was 4.0 (IQR=3.0) (Table 1). All in all, our results show that if injuries are classified into two body regions of abdominal and others, and two mechanisms of blunt and others, blunt abdominal injuries can be less severe than injuries caused by other mechanisms and in other body regions.

Declarations

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Authors' contribution

All the authors met the standards of authorship based on the recommendations of the International Committee of Medical Journal Editors.

Conflict of interest

None declared.

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Table 1 Comparison of patients' injury severity scores between blunt and other injuries as well as injuries in the abdominal area and other body regions

| Injury type | Mean (SD) | | | Median (IQR) | | |
|-------------|-----------|-----------|---------|--------------|-----------|---------|
| | Abdomen | Others | P value | Abdomen | Others | P value |
| Blunt | 1.5 (1.1) | 3.3 (2.5) | 0.005* | 1.0 (0.0) | 4.0 (3.0) | 0.002** |
| Other | 3.9 (4.2) | 4.5 (3.4) | 0.13* | 4.0 (3.0) | 4.0 (3.0) | 0.002** |

* based on t-test

** based on Mann-Whitney U Test

SD: standard deviation; IQR: interquartile range.