

## **Poster Presentation**

# Traumatic Spinal Injuries in Saudi Arabia: A Retrospective Single-center Medical Record Review

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#### Introduction

The aim of this retrospective medical record review was to describe the patterns and outcomes of traumatic spinal injuries (TSIs) in a tertiary care trauma center in Riyadh, Saudi Arabia.

## Methodology

Data of all patients who presented at a setting level-1 trauma center with any type of spinal trauma between February 1, 2016 and December 31, 2018 were review. The data obtained included age, gender, nationality (as Saudi and non-Saudi), date of presentation, site of fracture/injury, associated injuries, mechanism of injury, presence of neurological involvement, and hospital mortality. The main outcome of the review was frequencies of different types of TSI across various subgroups.

### Result

We identified 692 patients who presented with TSI during the study period. The mean age was 36.9 years. Males represented 83.2% (n=576) of the sample size, and the most common mechanism of injury was motor vehicle collision (MVC), accounting for 66.8% of the cases (n=462), while fall-related injuries were seen in 31.6% of the cases (n=219). A total of 454 (65.6%) of all patients were Saudi, and 332 (73.1%) of the TSIs in Saudis were due to MVC. Non-Saudi cases accounted for 238 (34.4%) of all patients, and 89 (37.4%) of the non-Saudi injuries were due to falls from height, this association was statistically significant (p<0.001).

#### Conclusion

TSI was not thoroughly examined in Saudi Arabia; therefore, this study is considered the first to be done in the Kingdom using a representative sample. The fact that non-Saudi patients had a higher proportion of falls as a mechanism of injury should be taken into consideration in terms of raising awareness and taking more safety precautions, as most construction workers tend to be expatriates.

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