

Evaluation of Frequency of Cervical Spine Injuries in Patients with Blunt Trauma

*Author(s): dr P Asadi, dr K Asadi, dr V Monsef-Kasmaei *, dr B Zohrevandi B, dr E Kazemnejad-leili, L Kouchakinejad Eramsadati, K khayyami , SH Majdi*

MD Guilan University of Medical Sciences

Study Type: Research | Subject: Special | Received: 2015/03/7 - Accepted: 2015/03/7 - Published: 2015/03/7

Article abstract:

Abstract Introduction: Trauma is one of the most important causes of mortality and morbidity in first four decades of life. Damage to cervical vertebrae due to high rate of mortality and morbidity is of high importance. These injuries can cause many psycho-mental, social and financial problems for respective patients and their families.

Objective: This study aimed at evaluating the spine vertebrae in traumatic patients.

Materials and Methods: This cross-sectional study was conducted on records of patients with cervical trauma admitted to Emergency Ward of Poursina Hospital from October 2009 to September 2012. The diagnostic criteria included cervical spine fracture, radiography and CT scan approved by a specialist in emergency medicine. Demographic data, site of injury, mechanism of injury, and fracture type according to the file contents were extracted. The data were analyzed by statistical software SPSS 16.

Results: After a review on 6235 patients with cervical spine trauma, 374 cases with blunt cervical spine trauma complaint were enrolled in the study. 83.7% were men (Mean age= 39.64 ± 17.46 years). The most involved age was 30-59

years. Most causes of injuries were vehicle accidents (69%) and fallings (14.2%). Most fractures of cervical spine were in vertebrae C6 (19.1%) and the highest rate of cervical dislocation belonged to C6-C7 (22.9%). In 16% of the cases, incomplete spinal cord injury and in 7.8% of cases complete spinal cord injury had occurred. In 56.7% of cases, accompanying lesions were seen, most of which included extremity injuries (61.3%), followed by head trauma with reduced GCS (21.7%). A significant relationship was observed between gender and cause of injury ($P<0.0001$), vertebral fractures ($P=0.002$), presence of accompanying lesions ($P=0.003$), and types of accompanying lesions ($P=0.009$). There was a significant association between age and cause of injury ($P<0.0001$).

Conclusion: Given that most of vertebral spinal injuries occurred in men and involved young group (20-39), and most mechanisms of injury belonged to car accidents, more care and attention can help prevent these injuries to a great extent

Keywords: Neck Injuries, Spinal Injuries,