Epidemiology of Traumatic Spinal Injury in north of Iran: A prospectiveStudy

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Background and Aim: Acute injuries of the spine and spinal cord are causing the greatest amount of disability.They have high cost of psychological and economic for patients and society. Knowing the prevalence of these injuries play an important role in planning for prevention andconservative treatment .But now we have little information about this in our country . The aim of this study was to determine epidemiology of spinal injury in Sari Emam hospital, main trauma center of Mazandaran, an Iranian province. Study design: Prospective study

Methods: the present study was a prospective-cross sectional study of all cases of traumatic spine injury, were admitted in Sari Emam hospital, main trauma center of Mazandaran, during 2012-2014.Check list included demographic characteristics (age, gender, location), mechanism of injury of the spine, the level of injury by radiologic imaging and MRI and CT scans, The scoring Systems for severity of injury were American Spinal Injury association (ASIA) and The Injury Severity Score .

Results: among a total of 906 cases, 57.8 %(523) were male and 42.2 %(383) were female. Male/Female ratio was 1.37:1. The most common age group at which spinal injury occurred in males was 25-44year-olds and in females was 45-64year olds(P=0.044).Most of the causative mechanism of trauma was traffic accidents, (especially motorcycle).Most common injury in spine fracture was compressive and burst fracture. Among 93 of patients with abnormal findings on neurological examination, forty five of them had complete spinal cord injury (class A of ASIA) and forty eight of them had incomplete spinal cord injury (class B, C, D, of ASIA).

Conclusions: education and prevention can effective in reducing damage the spine

Keyword: Epidemiology; spinal injuries; Iran,mazandaran