Repetitive traumatic brain injury in kashan, iran

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Background: Traumatic brain injury (TBI) is a worldwide problem, especially in countries with high incidences of road traffic accidents such as Iran. Patients with a single occurrence of TBI have been shown to be at increased risk to future TBI. This study presents incidences and characteristics of repeated traumatic brain injury (RTBI) in Iran.

Methods: During one year, all admitted TBI patients with prior TBI history were enrolled in the study. For each patient, the following data were collected: age, gender, past medical history, type of injury mechanism, anatomic site of injury, TBI severity, clinical findings, and CT scan findings.

Results: RTBI were composed of 2.5 % of TBI (41 of 1629). The incidence of TBI per 100,000 person-years was 9.1. The main mechanism of RTBI was road traffic accidents (68.3%). A total of 9.7 % of cases had preexisting seizure/epilepsy disorder (9.7%). A total of 36.6% of RTBI had previous ICU admission due severe TBI. Ten patients had GCS ≤13 (24.4%). Seizures were seen in 7 patients (17.1%). A total of 39% of RTBI patients had associated injuries. Eleven patients had abnormal CT scan findings (26.3%).

Conclusions: Considering the high incidence of trauma in developing countries, RTBI may also be more common than in developed countries. This mandates a newer approach to preventive strategies, particularly in those with a previous experience of head injury.

Keywords: Brain injuries, epidemiology, repeat traumatic brain injury