Characteristics of post-traumatic headaches following mild traumatic brain injury in military personnel

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Objectives: This study evaluated the prevalence and characteristics of posttraumatic headaches attributed to mild brain injury in military personnel in Isfahan.

Methods: A prospective, observational, descriptive study was conducted with a cohort of military personnel in military training during a 6-month period at the Military Training Center in Isfahan, Iran. A total of 322 military personnel were selected randomly and given a 13-item mild brain injury questionnaire and headache questionnaire, and reevaluated after a 3-month period.

Results: A total of 30 (9.3%) of the 322 military personnel met the criteria for a mild brain injury. Among them, 18 personnel (60%) reported headaches during the 3-month re-evaluation. PTHs were defined as headaches beginning within 1-week after a head trauma and were present in 5.6% of military personnel during the 6-month study period; 67% of PTHs were classified as migrainous or having possible migrainous features. Patients with disorders such as PTSD and depression were at a higher risk for developing PTH following mild brain injury (p<0.05). PTH did not relate to demographic factors such as age or type of trauma.

Conclusions: PTH attributed to mild brain injury is a common disorder in military personnel. Migrainous features are predominant among them when compared to the general population. PTH is not related to a particular type of trauma, but is associated with affective disorders.

Keywords: Posttraumatic headache, Mild traumatic brain injury, Blast injury, Migraine, affective disorders.