Mild traumatic brain injury epidemiology

- Acceptability of a Brain-Injury-Tailored Yoga and Meditation Program Among Female Patients with Concussion
- Post-Concussion Syndrome Following Blast Injury: A Cross-Sectional Study of Beirut Blast Casualties
- A Customized Neural Transcranial Magnetic Stimulation Target for Functional Disability Among Veterans With Co-Occurring Alcohol Use Disorder and Mild Traumatic Brain Injury: Protocol for a Pilot Randomized Controlled Trial
- Characteristics of traumatic brain injury-related healthcare visits across social determinants of health: A population-based birth cohort study
- Volumetric and Diffusion Tensor Imaging Abnormalities Are Associated With Behavioral Changes Post-Concussion in a Youth Pig Model of Mild Traumatic Brain Injury
- Pain Management in Mild Traumatic Brain Injury: Central Sensitization as a Multispecialty Challenge
- Factors affecting mortality risk in pediatric head injuries in Africa: a meta-analysis
- Epidemiology of Traumatic brain injury in Ethiopia: A systematic review and meta-analysis of prevalence, mechanisms, and outcomes

see Mild traumatic brain injury epidemiology in USA.

The incidence worldwide is approximately 600/100,000 pop. per year, with the incidence requiring hospitalization in the range of 100 to 300/100,000 pop. per year.

It occurs in men twice as often as in the female population, with the age group at highest risk being those aged 15-24 years.

The main causes of MBI are traffic accidents and falls [1)].

Mild Traumatic brain injury (mTBI) is a signature wound in military personnel, and repetitive mTBI has been linked to age-related neurodegenerative diseases that affect white matter (WM) in the brain [2)].

Saudi Arabia

The incidence of traumatic brain injury (TBI) in Saudi Arabia has been estimated to be 116 per 1,00,000 population as the incidence of TBI continues to rise. Al-Shareef et al. aimed to study the demographics, mortality predictors, and factors influencing the outcome of TBI cases in a tertiary care center in Jeddah, Saudi Arabia. They retrospectively collected data from all consecutive patients treated at the Emergency Department of King Abdulaziz Medical City including all acute TBI adult cases (>18 years) from 2016 to 2019. Logistic regression models were used to identify significant predictors of mortality. A total of 423 individuals with TBI were enrolled in the study. Nearly, half of them were in age group of 18 to 29 (40.77). Most patients were males (76.83%). Results Injuries were most commonly mild traumatic brain injury -to-moderate TBI (73.83%). A road traffic accident was the most common mechanism of injury (49.7%) followed by fall (39.5%). The most common mode of

transportation was private cars (47.57%). Most patient required less than or equal to24hours of admission (61.23%). A total of 30 (7%) died in the hospital all of which were male with no death cases reported among females. Conclusion In conclusion, this study reports a mortality rate related to TBI that is among the lowest in the region. Injuries were male predominant with more balanced male to female ratio. Patients who were delivered to the hospital via private cars had an improved survival. These finding should be interpreted in the context of retrospective noncontrolled study design, and further future studies are encouraged to consolidate these findings [3].

1)

Cassidy, J. D., Carroll, L. J., Peloso, P. M. et al.: Incidence, risk factors and prevention of mild traumatic brain injury: results of the WHO Collaborating Centre Task Force on Mild Traumatic Brain Injury. J. Rehabil. Med., 2004, 43 (Suppl.), p. 28-60.

2)

Bouchard HC, Sun D, Dennis EL, Newsome MR, Disner SG, Elman J, Silva A, Velez C, Irimia A, Davenport ND, Sponheim SR, Franz CE, Kremen WS, Coleman MJ, Williams MW, Geuze E, Koerte IK, Shenton ME, Adamson MM, Coimbra R, Grant G, Shutter L, George MS, Zafonte RD, McAllister TW, Stein MB, Thompson PM, Wilde EA, Tate DF, Sotiras A, Morey RA. Age-dependent white matter disruptions after military traumatic brain injury: Multivariate analysis results from ENIGMA brain injury. Hum Brain Mapp. 2022 Mar 15. doi: 10.1002/hbm.25811. Epub ahead of print. PMID: 35289463.

3)

Al-Shareef AS, Thaqafi MA, Alzahrani M, Samman AM, AlShareef A, Alzahrani A, Alzahrani A, Rio A, Hariri B, Ramadan M. Traumatic Brain Injury Cases' Mortality Predictors, Association, and Outcomes in the Emergency Department at a Tertiary Healthcare Center in Saudi Arabia. Asian J Neurosurg. 2022 Sep 9;17(3):416-422. doi: 10.1055/s-0042-1750786. PMID: 36398167; PMCID: PMC9666004.