INCIDENCE OF POST TRAUMATIC EPILEPSY IN KHARTOUM STATE, SUDAN BETWEEN THE PERIOD OF DECEMBER 2018 TO JANUARY 2020

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Background and Aims:
Epilepsy is one of the commonest neurological disorders. It has a strong association with trauma to the brain, constituting of 5% of epilepsy cases. To determine the incidence of post-traumatic epilepsy among Sudanese patients and to demonstrate the relation between traumatic brain injury and occurrence of epilepsy.

Methods:
A descriptive hospital-based cross-sectional study, conducted in Bashiar, Alacademy,Bahri , Ombada, Omdurman, and Ibrahim Malik Teaching Hospitals in Khartoum state, in the period from December 2018 to January 2020. Patients were interviewed by general emergency team. Relevant history was obtained, and both biochemical and neuroimaging investigations were done.

Results:
70 patients with history of traumatic brain injury (TBI), 6 (11.3%) developed post traumatic epilepsy (PTE). (82.9%) were males and (17.1%) were females.with mean age of 33 years old. In the 6 patients who developed PTE, the mode of trauma in two of them was gunshots, two due to fall, one by an automobile accident and one had assault. Regarding the neurological complication, one had subarachnoid hemorrhage, one had bilateral subdural hematoma and one developed massive epidural hemorrhage. Statistically significant correlation was found between TBI and comorbid conditions with ($p<0.001$). Older age was associated with more severe TBI. Significant correlation reported between the etiology of TBI and occurrence of PTE ($p<0.008$). Significant correlation between higher GCS at the time of trauma and not having PTE ($p<0.001$). People with TBI and GCS more than 12 had 1.8 less chance to develop PTE.

Conclusions:
Traumatic brain injury ,the etiology, comorbidities, and GCS at presentation, has a significant implications to occurrence of epilepsy.