**Montreal Cognitive Assessment, a screening tool for Mild Traumatic Brain Injury**

Objective: To assess the efficacy of Montreal Cognitive Assessment (MoCA) screening to detect cognitive deficits in patients following mild traumatic brain injury.

Background: The original MoCA validation study showed the test to be a promising tool for detecting Mild Cognitive Impairment (MCI) and Early Alzheimer's disease compared to the Mini-Mental State Examination (MMSE). No published study has examined the clinical utility of MoCA test in neurocognitive assessment of patients with mild traumatic brain injury.

Methods: In the past 36 months, we assessed 117 patients of mild traumatic brain injury at our center. The patient-age ranged from 19 to 82 years (mean age 44 years). There was male gender predominance (M:F = 60:57). The mean period elapsed between the injury and presentation varied from 0.5 -36 months. Post traumatic headaches were the most common associated symptom (n = 83) followed by vertigo (BPPV) in 45 patients. Only 32 patients were subjectively aware of memory loss since the injury. As a part of standard protocol, we administered MoCA to all patients at the intake visit. This test makes assessment of 7 cognitive functions, namely: visuo-spatial; naming; memory; attention; language; abstraction and orientation and allocates individual scores. The composite score ranges from 0 to 30.We consider a score of ≤ 27 as indicative of cognitive impairment.

Results: The composite scores varied from 12 to 30 (median 24). 84 patients recorded abnormal composite score thus making sensitivity of MoCA 71.8%. 100 patients had impaired memory scores followed by impaired visuo-spatial scores (n = 82), attention (n=76) and language (n= 67).

Conclusions: The incidence of memory impairment after mild traumatic brain injury and concussion is much higher than subjectively reported by the patients. Montreal Cognitive Assessment is 72% sensitive screening test in detecting occult memory impairment associated with post concussion syndrome and mTBI patients.