My Brain Hurts: A Focus on Somatosensory Complaints in Traumatic Brain Injury Patients Assessed by Neurobehavioral Symptom Inventory

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ABSTRACT

PURPOSE: Somatosensory symptoms are common complaints from patients following a Traumatic Brain Injury (TBI), but are not specific to TBI diagnosis. This study investigated the prevalence of somatosensory symptoms in TBI patients, evaluated if symptoms severity was associated with TBI severity, and assessed the relationship of somatosensory complaints to psychological complaints commonly associated with depression and Post Traumatic Stress Disorder (PTSD), METHODS: Somatic symptoms following traumatic brain injury (TBI) were assessed using 7 of the 22 items from the Neurobehavioral Symptom Inventory (NSI) which included headache, nausea, vision problems/blurriness, body numbness/tingling, taste/smell changes, light sensitivity, and noise sensitivity. RESULTS: Prior to treatment, 90.8% of patients endorsed clinically-elevated pre-treatment somatosensory symptoms. The presence of clinically-elevated somatosensory symptoms decreased after treatment to 77.6%. This demonstrated a high prevalence at admission of somatosensory complaints in patients with TBI which remained high even after completion of TBI treatment. Patients with a history of LOC greater than 30 minutes were three times less likely to endorse clinically-elevated somatosensory complaints when assessed prior to starting treatment as compared to those with no history of TBI. A similar association was found when evaluated clinically-elevated somatosensory complaints assessed after treatment. This study also demonstrated patients with clinicallyelevated somatosensory symptoms at admission were more likely to have and clinically-elevated depressive symptoms post-treatment. Similar significance was found assessing clinically-elevated somatosensory symptoms as admission and PTSD symptoms. CONCLUSION: Somatosensory symptoms are highly prevalent in TBI patients, but do not appear to correlate to TBI severity. Additionally, there is a strong association between somatosensory symptoms and psychological symptoms. The presence of both somatosensory and psychological symptoms before starting TBI treatment may be considered a strong indicator that somatosensory complaints will persist following completion of a TBI treatment program. Patients that endorse a high degree of psychological symptoms may benefit from targeted behavioral health therapies instead of traditional TBI treatment strategies. Special focus on somatosensory symptoms assessed by NSI may help guide clinical decision-making when treating TBI patients.