

# Memantine linked to lower neuron-specific enolase in TBI

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(HealthDay)—For patients with moderate traumatic brain injury (TBI),

memantine is associated with reduced neuronal damage, as assessed by serum levels of neuron-specific enolase (NSE), according to a study published online July 19 in the *Journal of Clinical Pharmacology*.

Majid Mokhtari, M.D., from Imam Hossein Hospital in Tehran, Iran, and colleagues randomized 41 [patients](#) to either a control group which received standard TBI management (19 patients) or a treatment group which received enteral [memantine](#) 30 mg twice daily for seven days alongside standard management (22 patients). During the study, patients' clinical data, Glasgow Coma Scale (GCS), findings of head computed tomography, and serum NSE levels were obtained.

The researchers found that on days three and seven, the mean serum NSE levels were  $7.95 \pm 2.86$  and  $12.33 \pm 7.09$  ng/mL ( $P = 0.05$ ) and  $5.03 \pm 3.25$  and  $10.04 \pm 5.72$  ng/mL ( $P = 0.03$ ), respectively, for the memantine and control groups. On day three, the mean GCS score was  $12.3 \pm 2.0$  and  $10.9 \pm 1.9$  in the memantine and control groups, respectively ( $P = 0.03$ ). There was a negative correlation for serum NSE levels and GCS changes ( $r = -0.368$ ;  $P = 0.02$ ).

"Patients with moderate TBI who received memantine had significantly reduced serum NSE levels by day seven and marked improvement in their GCS scores on day three of the study," the authors write.

**More information:** [Abstract](#)  
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