

DELIRIUM IN CRITICAL ILLNESS PATIENTS AND THE POTENTIAL ROLE OF VITAMIN B SUPPLEMENTS IN THE MANAGEMENT OF DELIRIUM

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Background: Delirium is a symptom of acute brain dysfunction and affects around 30% of patients admitted in Intensive care unit (ICU) and High dependency unit (HDU). The high incidence of delirium in the critical care setup inspired the 'HDU team' of Square Hospital to form an integrated approach to CNS monitoring and delirium management in critically ill patients. **Methods:** This randomized control trial was conducted in the adult HDU of a multidisciplinary hospital in Bangladesh from 16-Oct-2022 to 15-Oct-2023. The study included 2104 patients admitted during this period with 'Sepsis' and 'Delirium', confirmed by 4AT and DSM-V criteria. Patients showing cognitive improvement on correction of sepsis were excluded. **Results:** Addition of Vitamin B supplements showed statistically significant cognitive improvement (163 out of 204, $p < 0.001$) in patients with delirium within 4 days. Better clinical improvements were observed in patients receiving Combination of Vitamin B (B1+B6+B12) supplements in comparison to patients receiving thiamin alone (84.6% vs 75%), although there was no statistical difference. **Conclusion:** Small number of studies and heterogeneity make it impossible to draw conclusions confirming the use of thiamin or vitamin B combination supplement as the best option in the prevention and treatment of delirium in critically ill patients. So, there is a need of large-scale, high quality randomized control trials to confirm the beneficial effects of these vitamins.

Key words: Delirium, Critical Illness

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