



Physiological impact and Therapeutic application of Depakine or Valboric acid

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Abstract

Due to health quarantine during the recent covid-19 pandemic, most population suffered from unhealthy ways of sleep and continuous exposure of stress with chronic mood disorders and headaches. But, during the covid-19 pandemic, the epileptic patients showed seizure escalation and initiated severe symptoms treated with high and low doses of common psychoactive drugs, especially valproic acid. Several review articles focused on some clinical data of

potential application of valproic acid, its benefits, and risks of high and low doses that globally prescribe too many people who suffered from the neurological illness of the central nervous system or hereditary diseases with any incident that harms the brain. Valproate is a monocarboxylic acid and an indirect γ -aminobutyric acid with a histone deacetylase inhibitor. Moreover, it has been evaluated as an equal or superior ability as an antiepileptic and anti-diabetic drug. It has a complex mechanism action for a diminution in neuronal hyperexcitability by strengthening GABAergic transmission and by constraining sodium and calcium ion passages. Worldwide, Valproate has different commercial names such as Depakine, Convulex, Epival, Kentlim, and Syonell. Exclusively, Depakine use as mono therapy and a novel choice for all types of generalized epilepsy of children. It can be used for long periods and continuously because it acts as a histone deacetylase (HDAC) inhibitor. Moreover, studies showed that Depakine did not have any narcotic effect. Still, it has biological activities to regulate gene expression and management of several therapeutic to neuropathic pain, brain plasticity, HIV therapy, schizoaffective, diabetes mellitus, autoimmune and cardiovascular diseases. Nonetheless, sodium valproic acid has a safety with major anticancer effects and antiviral or immune-modulatory effects by reducing virus replication in the body cells such as coronavirus. Consequently, this brief review article intends to evaluate the seizure threat of epilepsy and the efficacy of sodium valproate therapy by inhibition of migraine severity.

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