The Evaluation of Serum Level of 25-Hydroxy Vitamin D in Patients under Sodium Valproate Medication

Sepideh Mansoori Majoofardi¹,²*, Zahra Sheidae Mehne¹

¹Student Research Committee, Faculty of Medicine, Islamic Azad University, Mashhad branch, Mashhad, Iran
²Gastrointestinal Cancer Research Group, Mashhad University of Medical Science, Mashhad, Iran

Abstract

Epilepsy is one of the common neurologic disorders in children. Drug side-effects are one of the important problems in treating patients with epilepsy. Using the antiepileptic medication may cause different side effects such as disorder in bone and vitamin D metabolism. Sodium valproate is one of the antiepileptic medications used widely. Some of its side effects include digestive disorder, increasing of level hepatic enzymes, fatal hepatitis, decreasing level of vitamin D, and etc. The evaluation of serum level of 25-hydroxy vitamin D in patients who are treated with sodium valproate for a long time and presenting suggestions to decrease its side effects. This review study is performed by searching valid internal and external scientific databases (Science Direct, PubMed, Google scholar, SID and etc.) by related keywords. Recent researches have shown that antiepileptic medications including sodium valproate commonly cause a decrease in vitamin D level. Also, decrease in the measurement of bone marrow density (BMD) in patients treating with sodium valproate for a long time has been proved. So, periodic measurement of the level of 25-hydroxy vitamin D in children with epilepsy who were treated with sodium valproate is suggested. Also, consuming prophylactic vitamin D is necessary for these patients. Considering the mentioned side effects, it is suggested that this drug should not be consumed by children under 2 year old and pregnant women.

Keywords: Epilepsy, Antiepileptic medication, 25-hydroxy vitamin D, Sodium valproate

*Corresponding Author: Sepideh Mansoori Majoofardi
E-mail: sepideh.mansoori91@gmail.com