

LETTER TO EDITOR (VIEWERS CHOICE)

CURLY HAIR: A RARE SIDE EFFECT OF SODIUM VALPROATE IN A CHILD

Rajani H S.

Department of Pediatrics, JSS Medical College, JSS Academy of Higher Education and Research, Mysore, India.

A 13 years old boy suffering from epilepsy post viral encephalitis was on sodium valproate (10 mg/kg/day) for two years. At the sixth month of valproate usage, father noticed that the child's hair was becoming curly (figure 1 and 2). There was no hair loss. No other adverse effects were noted. Laboratory tests in form of complete blood count and liver enzymes were normal.

Figure 1. Hair before sodium valproate therapy



Figure 2. Hair after 6 months of sodium valproate therapy



Valproate is used in the treatment of epilepsy. The drug has many side effects such as weight gain, gastrointestinal disturbances, drug interactions, acute liver disease, pancreatitis, hyperglycinemia, hyperammonemia, sedation, alopecia, hair loss and tremors.^{1,2,3} Valproate-induced hair texture changes such as curly hair has rarely been reported^{4,5,6,7} which

CONTACT Rajani H S.

Email: drrajanihs@jssuni.edu.in

Address for Correspondence: Dr. Rajani H S, Assistant Professor, Department of Pediatrics, JSS Medical College, JSS Academy of Higher Education and Research, Mysore 570004, India.

©2019 Pediatric Oncall

ARTICLE HISTORY

Received 15 March 2019

Accepted 20 May 2019

KEYWORDS

Curly hair, sodium valproate, epilepsy

usually occurs after 3 months after starting therapy. In a study done by Mattson and colleagues, on comparison between sodium valproate and carbamazepine for the treatment of generalized tonic-clonic seizures, it was found that 12% of patients using valproate had hair loss or change in texture.⁸ The mechanism of valproate induced effects on hair is unclear; however, it may be related to the effects of chelating of metals (copper, zinc, and magnesium) as well as inhibition of metallic enzymes.⁵ The original and normal texture of hair reappears after stopping sodium valproate.⁸

Compliance with Ethical Standards

Funding: None

Conflict of Interest: None

References :

1. Gerstner T, Lipinski C, Longin E, König S. Valproate-induced change in hair color. *J Am Acad Dermatol.* 2008;58(2 Suppl):S63-S64.
2. Chen B, Choi H, Hirsch LJ, Moeller J, Javed A, Kato K, et al. Cosmetic side effects of antiepileptic drugs in adults with epilepsy. *Epilepsy Behav.* 2015; 42:129-137.
3. Mieczkowski T, Tsatsakis AM, Kruger M, Psillakis T. The concentration of three anti-seizure medications in hair: the effects of hair color, controlling for dose and age. *BMC Clin Pharmacol.* 2001;1:2.
4. Seckin D, Yildiz A. Repigmentation and curling of hair after acitretin therapy. *Australas J Dermatol.* 2009;50:214-216.
5. Wilting I, van Laarhoven JH, de Koning-Verest IF, Egberts AC. Valproic acid-induced hair-texture changes in a white woman. *Epilepsia.* 2007;48:400-401.
6. Jeavons PM, Clark JE, Harding GF. Valproate and curly hair. *Lancet.* 1977;1:359.
7. Ebrahimi H, Shamsadini S, Eshkavari SS. Frequency of Sodium Valproate-Induced Hair Loss and Curly Hair. *Iranian J Pharmacol Therapeut.* 2005; 4:143-145
8. Mattson RH, Cramer JA, Collins JF. A comparison of valproate with carbamazepine for the treatment of complex partial seizures and secondarily generalized tonic-clonic seizures in adults. The Department of Veterans Affairs Epilepsy Cooperative Study No. 264 Group. *N Engl J Med.* 1992 Sep 10;327(11):765-71.