The Best New Antiepileptic Drugs to Prevent Orofacial Malformations as Side Effects of Antiepileptic Drugs

Pouya Ghaderi¹, Mahshad Abdolmaleki², Negar Ghasemi², Bita Abdolahi²

¹Islamic Azad University, Mashhad Branch, Mashhad, Iran
²Islamic Azad University, Tabriz Branch, Tabriz, Iran

Abstract

Mothers exposed to Antiepileptic drugs (AEDs) are at high risk to born babies with orofacial malformations such as cleft lips. About 9 percent of congenital abnormalities in babies of mothers with epilepsy relates to orofacial abnormalities. Maintaining safe antiepileptic drugs for millions of mothers with epilepsy is very important. Researches show that new AEDs have less side effects than the old AEDs. But it should be consider that these new drugs are initially licensed for adult patients and there are few researches about their effects on pregnant women. So the new AEDs with the least side effect should be definite to make better choices in treatment of pregnant women with epilepsy. Vigabatrin, lamotrigine, rufinamid, levetiracetam, oxcarbazepine, zonisamide, topiramate, lacosamide, eslicarbazepine, Valproate and perampanel were included in our study. Articles indicate that Valproate has the most risk of orofacial malformations overall. Also lamotrigine and rufinamide are the most tolerated drugs and the least prevalence of orofacial malformations have been seen in babies that their mothers used the drugs during pregnancy. Standard dose of lamotrigine and rufinamide in pregnant women should be consider and need more studies.

Keywords: Antiepileptic drugs, Orofacial malformation, Pregnancy

*Corresponding Author: Pouya Ghaderi
Email: Pouyaghaderi73@gmail.com