Jidhin Raj, J Neurol Disord 2021

Women with epilepsy

Jidhin Raj
Government Medical College Kottayam, India

Women with epilepsy (WWE) face specific challenges throughout their lifespan due to the effects of seizures and antiepileptic drugs on hormonal function, potentially affecting both sexual and reproductive health, awareness of these gender-specific issues and implementation/adaptation of effective interventions for WWE results in significantly improved health-related quality of life in this patient population. Although sex ratios in the epidemiology of epilepsy are not fully established, there appears to be a slight gender difference in the prevalence of different epilepsy types, such as idiopathic generalized epilepsy and childhood absence epilepsy (2–5 times more common in girls than boys) and juvenile myoclonic epilepsy (1.5 times more common in girls than boys). In a study conducted in India, more than half of WWE concealed their history of epilepsy prior to their wedding, fearing social stigma and breakdown of the marriage negotiations.

Management of epilepsy in women requires not only knowledge of epilepsy, but also recognition of the various roles and priorities women have in their lives (education, career development, child rearing, the role as carer within the extended family), and attention to gender-specific issues and their impact on patients' wellbeing throughout life catamenial epilepsy refers to exacerbation of seizures during different phases of the menstrual cycle in women with pre-existing epilepsy.

Catamenial epilepsy can affect one third to one half of WWE and it is reported that up to one third of female patients with intractable complex partial seizures may have this condition. There exist complex, multidirectional interactions between female hormones, seizures and AEDs. Most hormones act as neurosteroids and can thus modulate brain excitability via direct binding sites. Any changes in endogenous or exogenous hormone levels can affect the occurrence of seizures, either directly or via pharmacokinetic interactions that modify the plasma levels of AEDs.

The most common reproductive endocrine disorder in WWE is PCOS, a condition characterized by hyperandrogenism, multiple ovarian cysts, anovulatory cycles, hirsutism and obesity. The prevalence of PCOS in WWE has been estimated at between 4% and 19%. Most studies suggest an increased incidence of PCOS in women taking valproate as opposed to carbamazepine or lamotrigine. Although WWE often express concerns about worsening seizure control during pregnancy, converging evidence from multiple studies shows that seizure activity during gestation is unchanged from pre-pregnancy baseline in more than half of cases.

In the European and International Registry of Antiepileptic Drugs in Pregnancy, 64% of WWE reported no change in seizure control from the first trimester to the following two trimesters, with 93% of these women being seizure free. It is reported that in the menopause, 40% of WWE can experience a worsening of seizure frequency, whereas up to 27% may go into remission.

Psychiatric comorbidity is high in patients with epilepsy often as a result of AED treatment. The overall prevalence rate of psychiatric conditions in epilepsy ranges between 20–30% and 50–60%, according to different estimates.

Biography:

Jidhin Raj has completed his Neurology training from the prestigious Government Medical College Kottayam. He is presently the senior resident in Neurology in the same college. He has won various prizes in Quizes and is an avid reader. His special interests include Neuropthalmology and Movement disorders. He is one of the reviewers of Neurology Journal published by American Academy of Neurology.