

PARTICULARITIES OF EPILEPSY IN WOMEN

Natalia Stoianov^{1,2}, Liliana Iuhtimovschi^{1,2}, Stanislav Groppa^{1,2}

¹State University of Medicine and Pharmacy Nicolae Testemitanu

² National Center for Epilepsy, Chisinau, Republic of Moldova

Introduction

Epilepsy is a chronic neurological disease with an annual incidence rate of 40–70 per 100.000 population, affecting 0.5–1.0% of women of childbearing age. Epilepsy in reproductive-aged and pregnant women rise a number of questions like interaction of antiepileptic drugs (AEDs) with contraceptives, changes in fertility, pregnancy and hormonal modification, a series of risks for congenital malformations caused by AEDs, and obstetric and lactation issues that require knowledge and recommendations for an adequate control of epileptic seizures in women with epilepsy. Pregnant women with epilepsy has substantially increased risk of preeclampsia, preterm labor, stillbirth, cesarean delivery, and a more than 10-fold increased risk of death. The risk for status epilepticus during pregnancy is about 1–2%.

Keywords: women, epilepsy, pregnancy

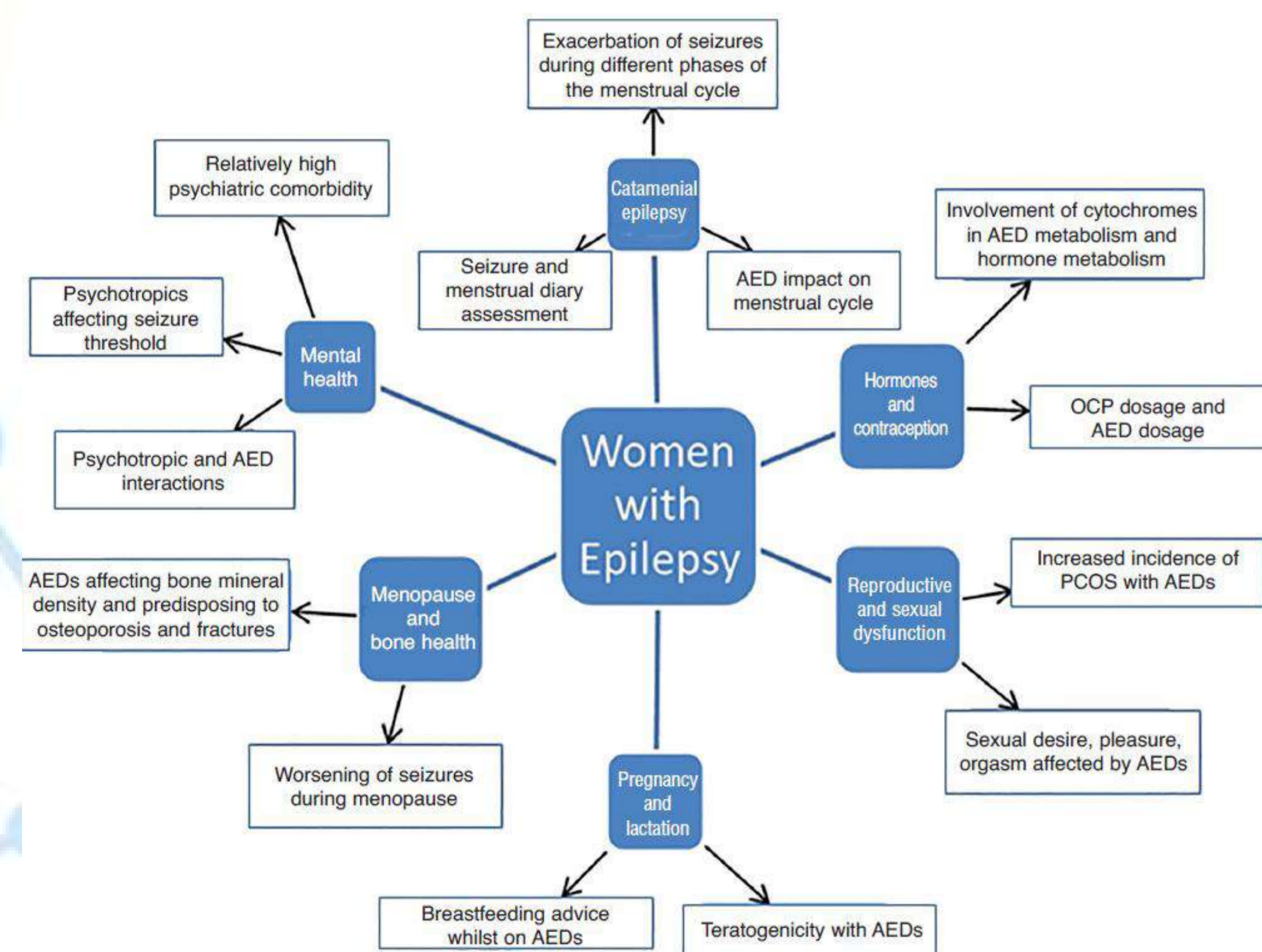


Figure 1 Summary of clinically relevant issues in women with epilepsy. Abbreviations: AED=antiepileptic drug; PCOS=polycystic ovary syndrome; OCP=oral contraceptive pill from Bangar S, Shastri A, El-Sayeh H, Cavanna AE. Women with epilepsy: clinically relevant issues. *Funct Neurol.* 2016;31(3):127-134. doi:10.11138/fneur/2016.31.3.127

Purpose

We aimed to establish peculiarities of epilepsy in women in Moldova and to analyze the impact of the disease on their life and health.

Material and methods

We ran a retrospective study (medical records) of women consulted at National Center for Epilepsy during 2015–2020 years. Demographic data, diagnosis, clinical and paraclinical data, obstetric history, antiepileptic therapy, adherence and effectiveness of treatment, psychoneurological profile were analyzed.

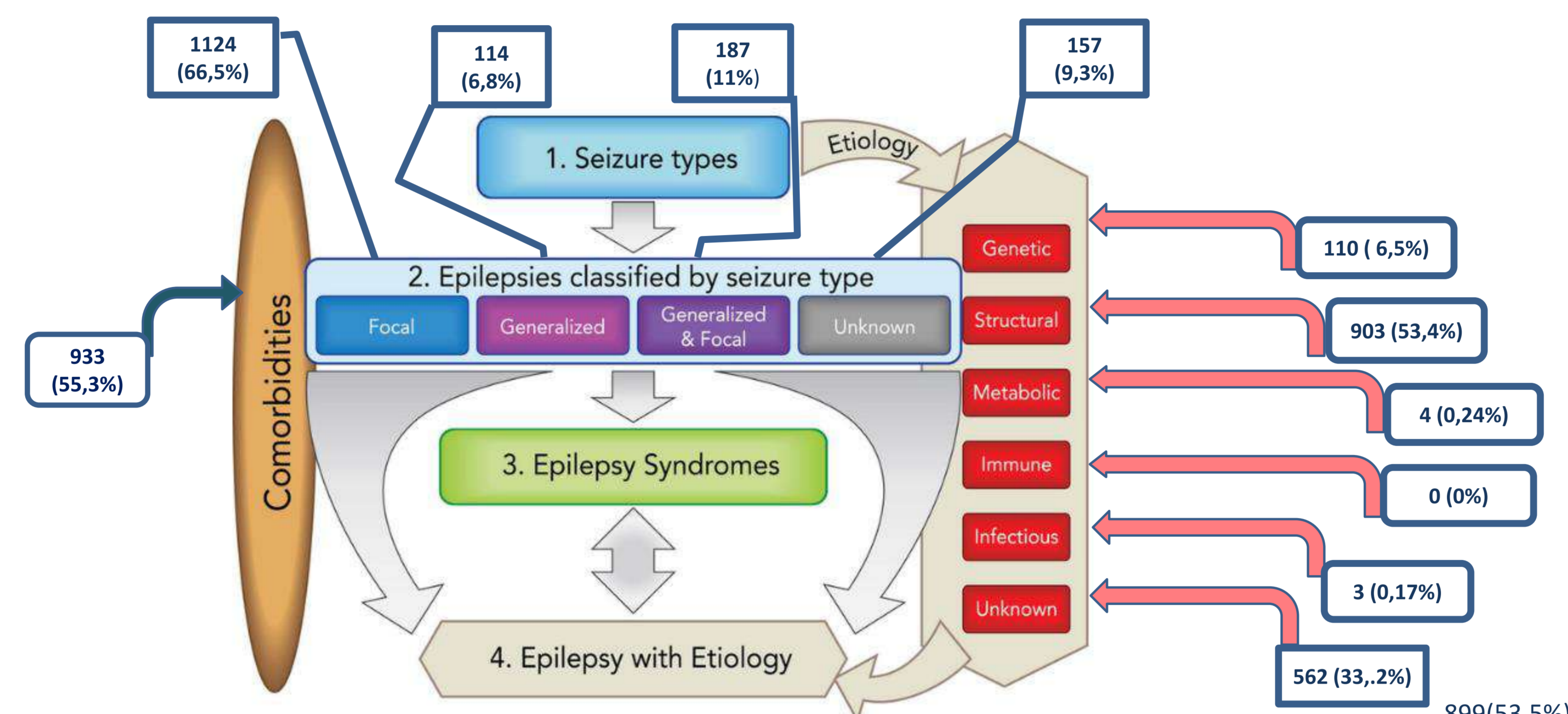


Figure 2. Repartition by type of seizures and etiology

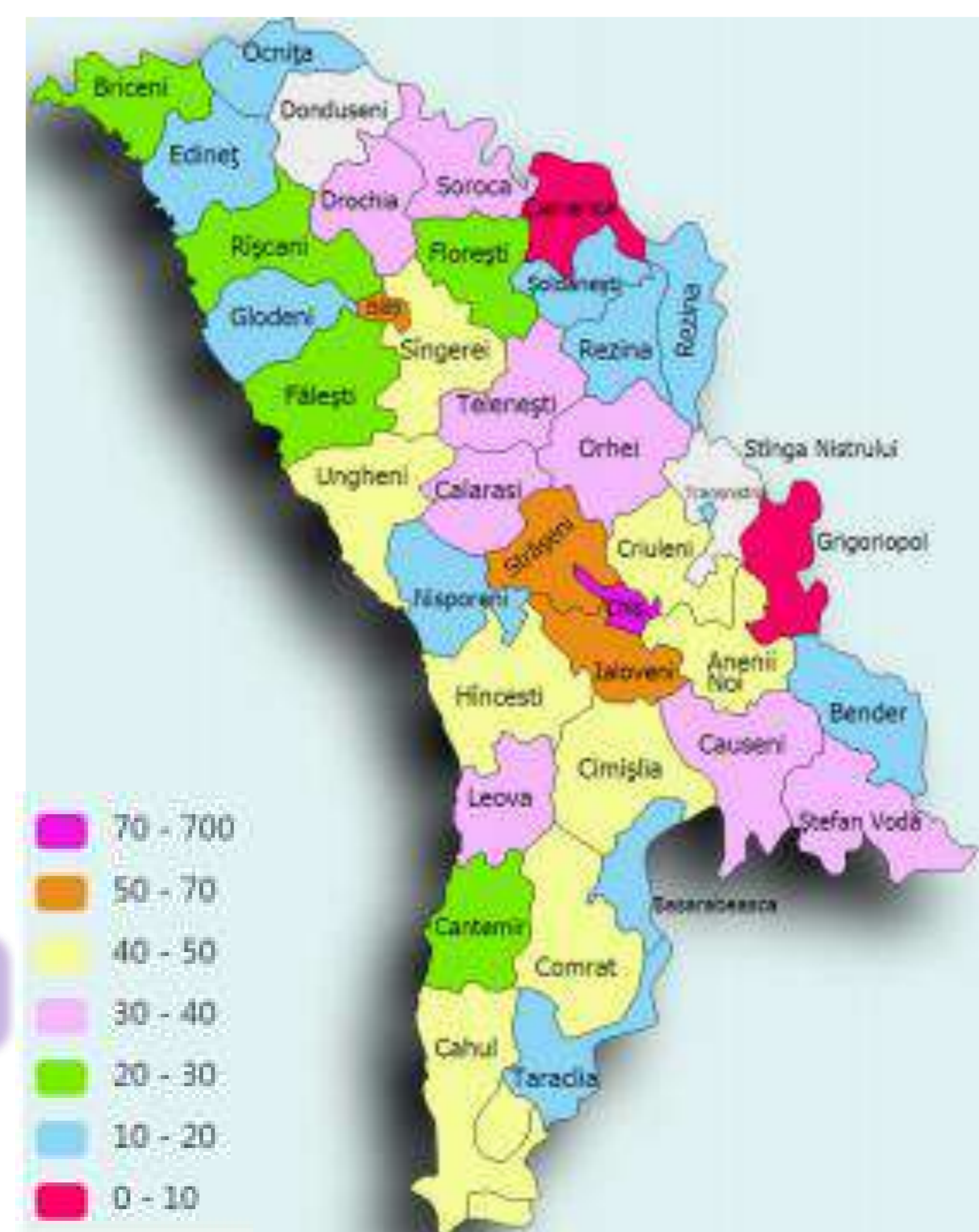


Figure 5. Addressability according to the region of the country

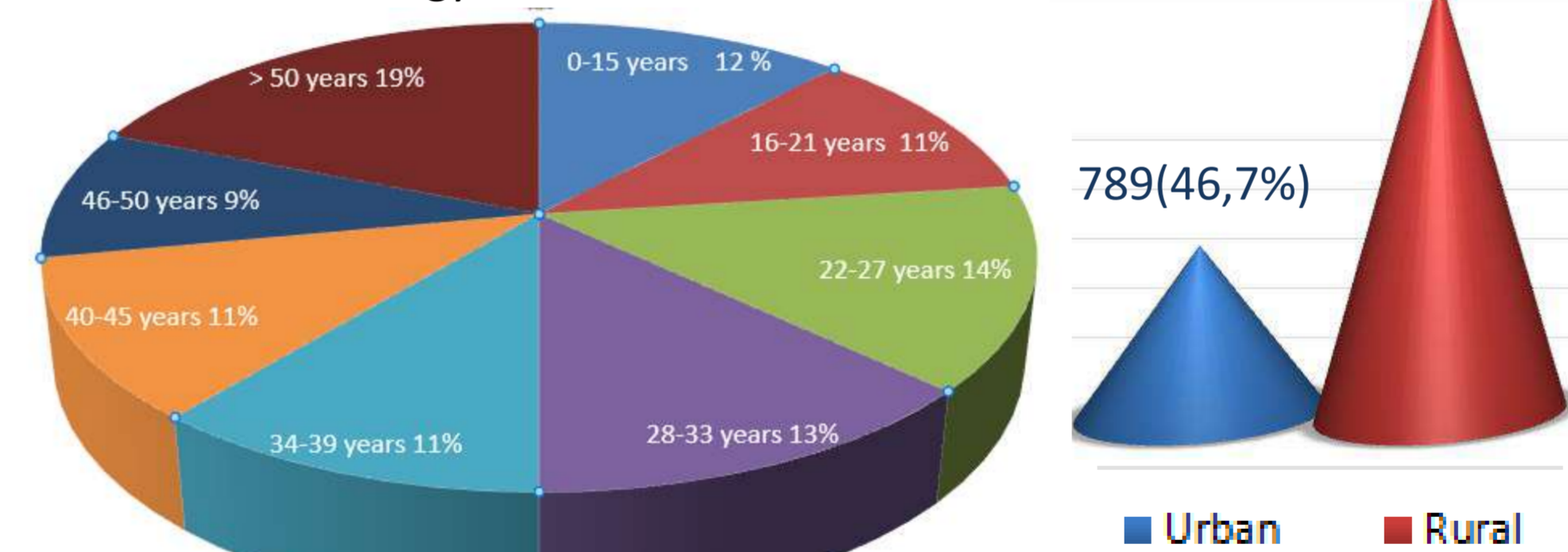


Figure 3. Age groups

Figure 4. Place of residence

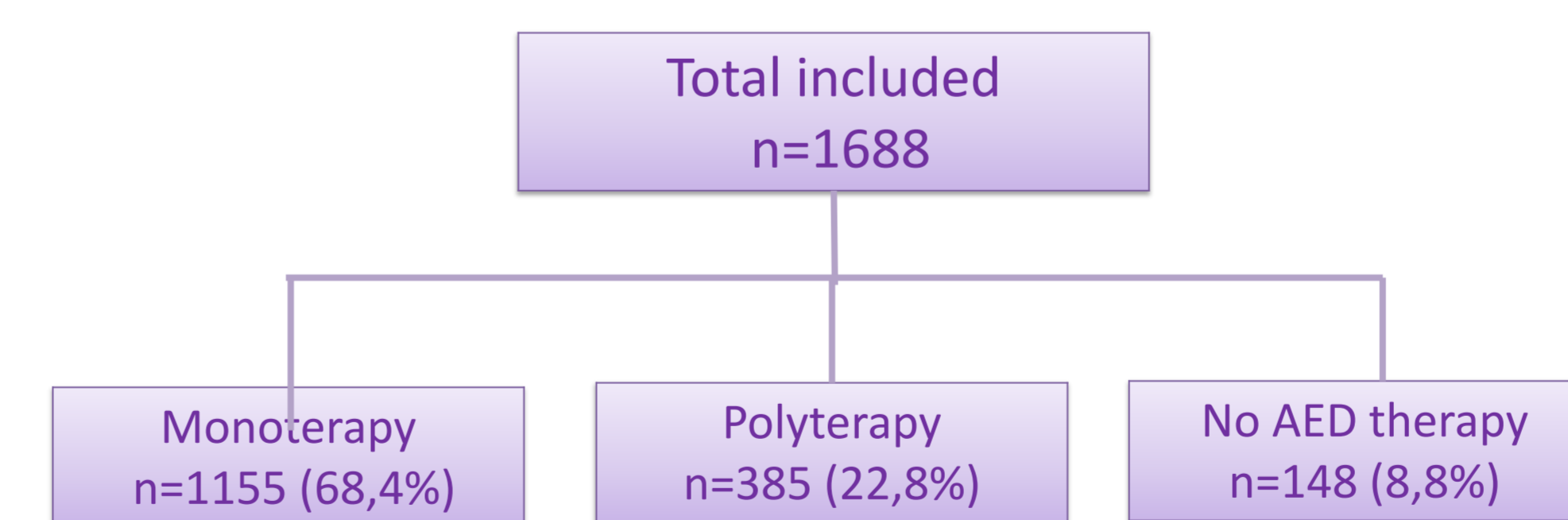


Figure 6. Stratification of study group according to medication

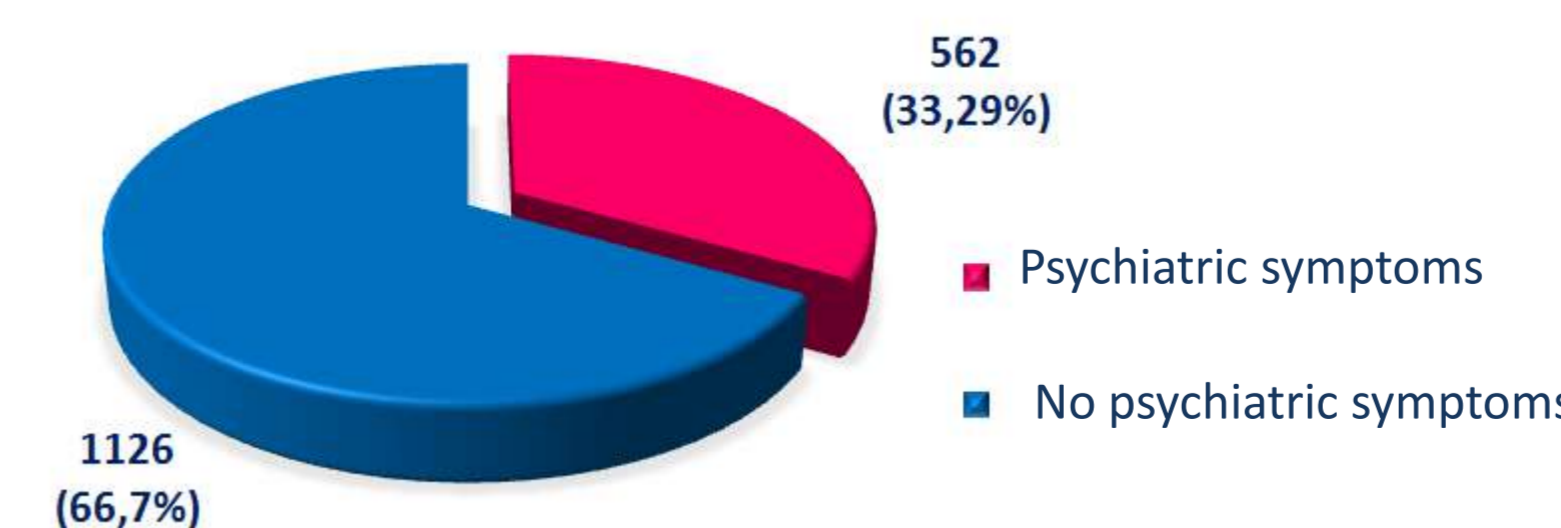


Figure 7. Psychiatric symptoms (Depression and Anxiety)

Results

About 1162 (68,8%) women from 1688 included in study were of childbearing age, 77.2% of them on antiepileptic monotherapy or no AED treatment. More than a half of women (55,3%) presented comorbidities, structural epilepsy (53,4%) with predominantly focal seizures (66,5%). About 6% (106 patients) presented with acute seizures of unknown or induced genesis. Standard Video EEG investigation show no abnormalities in almost half of women included in study – 810 (48%). In 186 women (11%) a correlation between the occurrence of seizures and the menstrual cycle was found. 11% (185) of patients have been non-compliant with antiepileptic treatment, 2% (34) of whom developed Status epilepticus. More than a half of 162 pregnant women (108(66,7%)) did not present seizures during pregnancy; only 3 (1,8%) has seizures during labor. 70 women (44,9%) underwent caesarean section, more than a half of them – 41 (58,6%) being emergencies. Only 31(44,3%) has obstetric indications, while 17 (24,3%) has neurological or mixed indications 22 (31,4%). Most of pregnant women with clinical remission at least 9 months to 1 year before pregnancy (89%) did not develop seizures. During pregnancy, 69% were on antiepileptic treatment, 98 (87,5%) on monotherapy. One case of status epilepticus during pregnancy and one case of congenital spina bifida malformation in a child born by mother on antiepileptic polytherapy has been documented.

Conclusions

- ✓ Women with epilepsy face challenges caused by the influences of hormonal changes on seizure activity and endocrine function.
- ✓ Antiepileptic drugs influences contraception, pregnancy and lactation.
- ✓ Mental health issues are common in women with epilepsy, affecting their health and social life.
- ✓ Adherence to therapy, including during pregnancy and birth, are important to avoid complications.
- ✓ Malformations due to AEDs are rare.
- ✓ Complications due to treatment non-compliance are significant and request counselling and educating women with epilepsy, including pregnancy and birth issues

References

1. Beach, RL & Kaplan, PW 2008, Chapter 15 Seizures in Pregnancy. Diagnosis and Management. in B Gidal & C Harden (eds), *Epilepsy in Women The Scientific Basis for Clinical Management*. International Review of Neurobiology, vol. 83, pp. 259-271.
2. S., Shastri, A., El-Sayeh, H., & Cavanna, A. E. (2016). Women with epilepsy: Clinically relevant issues. *Functional Neurology*, 31(3), 127- 134.
3. Stephen LJ, Harden C, Tomson T, Brodie MJ. Management of epilepsy in women. *Lancet Neurol.* 2019;18(5):481-491.