

Clinical Features of Pregnancy and Childbirth in Women with Epilepsy

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Abstract Insufficient knowledge of the comorbidity of epilepsy in pregnant women, which stands at the intersection of neurology and obstetrics and gynecology, often causes many unfounded fears or, conversely, remains without due attention. The purpose of this article was to reveal possible complications in the mother and fetus depending on the chosen tactics of antiepileptic therapy and the individual characteristics of women in labor. **Material and methods.** Data from the medical records of 200 parturient women with epilepsy were prospectively studied. Factors contributing to the development of these complications and aggravating the course of pregnancy were also studied. The results of the analysis showed that the risk of complications in the fetus with monotherapy is lower than with polytherapy.

Keywords Pregnancy, Epilepsy, Teratogenic risk, Antiepileptic drugs, Complications, Anticonvulsants

1. Introduction

Epilepsy is a common, chronic and serious neurological disease, the treatment of which usually needs to be continued during pregnancy, which in itself raises concerns about the teratogenicity of the drugs used [3,6,7].

Pregnancy does not usually affect the frequency of seizures in parturient women with epilepsy (PE). Although percentages vary between studies, approximately 60% of patients have a seizure frequency similar to their baseline pre-pregnancy seizure frequency, whereas 15% experience an increase in frequency and 15% a decrease [1,2]. If a patient has had seizures, if she is healthy for 1 year before pregnancy, it is very likely (80%) that she will continue to be seizure free during pregnancy. The incidence of status epilepticus in pregnant EC is comparable to the annual incidence of 1.6% in the general population of epileptics [4,5,8].

2. Material and Research Methods

Under our direct supervision in the Andijan branch of the Republican Perinatal Center there were 200 women in labor with epilepsy in the period from 2020 to 2023. Conventionally, all women in labor were divided into two groups: 108 of them received polytherapy (two or more anticonvulsants), 82 - monotherapy. The main contingent of patients - 62 people (59.1%) were housewives. The age limit was 18-38 years.

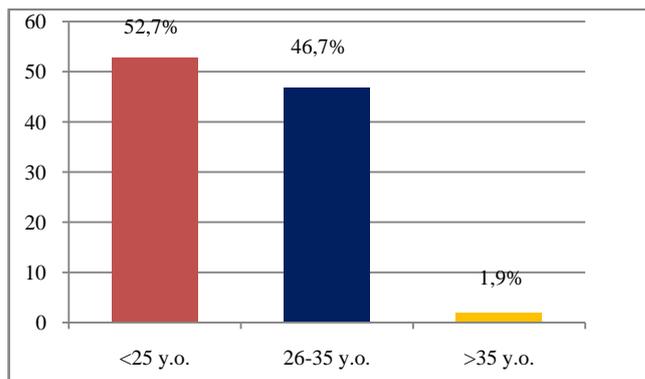


Figure 1. Age distribution of patients receiving monotherapy

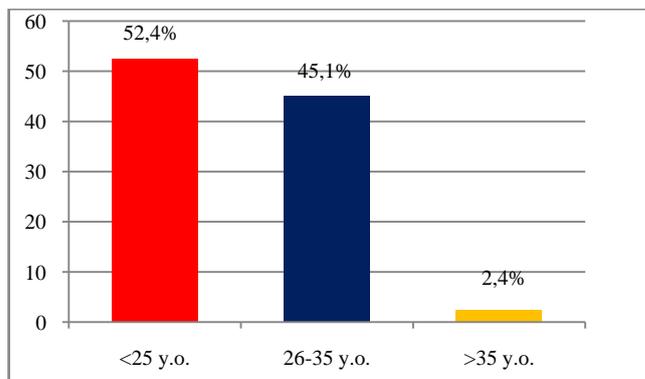


Figure 2. Age distribution of patients receiving polytherapy

In terms of age and in the context between the group of patients receiving monotherapy and the group receiving polytherapy, there was no significant statistical difference, which means that we could exclude bias in comparing the study results.

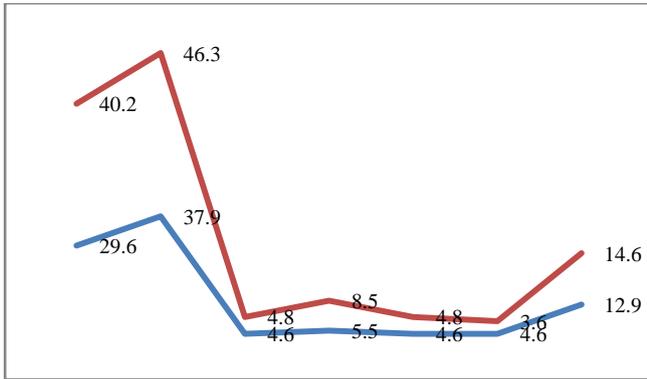


Figure 3. Presence of concomitant somatic pathologies

3. Research Results

As complications of the use of antiepileptic drugs, we took into account low body weight, signs of chronic fetoplacental insufficiency, acute fetal hypoxia during childbirth, fetal deformities, and adynamia of newborns.

Although percentages vary across studies, approximately 60% of patients have a seizure frequency similar to their baseline prepregnancy seizure frequency, while 15% experience an increase in frequency and 15% a decrease. If a patient has had seizures, if she is healthy for 1 year before pregnancy, it is very likely (80%) that she will continue to be seizure free during pregnancy. The incidence of status epilepticus in pregnant WWE is comparable to the annual incidence of 1.6% in the general population of epileptics.

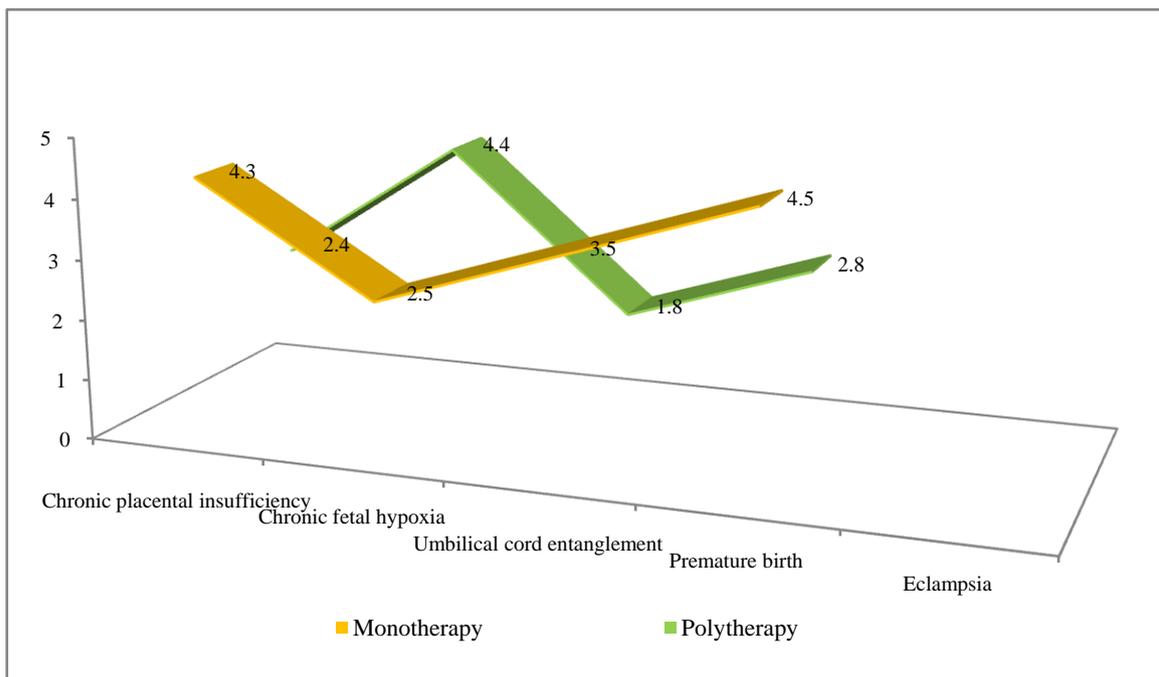


Figure 4. Complications during labor

Antiepileptic drug (AED) use contributed to the overall risk. The incidence of these complications between WWE and controls was found in a prospective controlled study of 155 pregnancies in WWE.

4. Conclusions

The presence of epileptic status in the mother and the use of antiepileptic drugs certainly affects the course of pregnancy and fetal development, but stopping antiepileptic therapy would, of course, be inappropriate. However, it can be noted that the risk of complications when conducting monotherapy is significantly lower than when using several anticonvulsants.

REFERENCES

- [1] Braillon A, Bewley S. Epilepsy in women during pregnancy. *Lancet*. 2016 Feb 13; 387(10019): 646. doi: 10.1016/S0140-6736(16)00284-1. PMID: 26876712.
- [2] Chen D, Hou L, Duan X, Peng H, Peng B. Effect of epilepsy in pregnancy on fetal growth restriction: a systematic review and meta-analysis. *Arch Gynecol Obstet*. 2017 Sep; 296(3): 421-427. doi: 10.1007/s00404-017-4404-y. Epub 2017 Jun 23. PMID: 28646257.
- [3] H Bjørk M, Veiby G, A Engelsen B, Gilhus NE. Depression and anxiety during pregnancy and the postpartum period in women with epilepsy: A review of frequency, risks and recommendations for treatment. *Seizure*. 2015 May; 28: 39-45. doi: 10.1016/j.seizure.2015.02.016. Epub 2015 Feb 21. PMID: 25777784.
- [4] Miškov S, Gjergja Juraški R, Mikula I, Bašić S, Bošnjak

- Pašić M, Košec V, Sabol Z, Fučić A, Sajko T, Bašić Kes V. The Croatian Model of Integrative Prospective Management of Epilepsy and Pregnancy. *Acta Clin Croat.* 2016 Dec; 55(4): 535-548. doi: 10.20471/acc.2016.55.04.02. PMID: 29116720.
- [5] Shih JJ, Whitlock JB, Chimato N, Vargas E, Karceski SC, Frank RD. Epilepsy treatment in adults and adolescents: Expert opinion, 2016. *Epilepsy Behav.* 2017 Apr; 69: 186-222. doi: 10.1016/j.yebeh.2016.11.018. Epub 2017 Feb 23. PMID: 28237319.
- [6] Stephen LJ, Harden C, Tomson T, Brodie MJ. Management of epilepsy in women. *Lancet Neurol.* 2019 May; 18(5): 481-491. doi: 10.1016/S1474-4422(18)30495-2. Epub 2019 Mar 8. PMID: 30857949.
- [7] Vajda FJE, O'Brien TJ, Graham JE, Hitchcock AA, Perucca P, Lander CM, Eadie MJ. Twin pregnancy in women with epilepsy. *Epilepsia.* 2020 Dec; 61(12): 2748-2753. doi: 10.1111/epi.16727. Epub 2020 Nov 2. PMID: 33140408.
- [8] Weckesser A, Denny E. Women living with epilepsy, experiences of pregnancy and reproductive health: a review of the literature. *Seizure.* 2013 Mar; 22(2): 91-8. doi: 10.1016/j.seizure.2012.11.001. Epub 2012 Nov 24. PMID: 23182977.