

FREQUENCY AND DYNAMICS OF STRESS FACTORS IN PREGNANT WOMEN DEPENDING ON AGE (RESULTS OF 3-YEAR EPIDEMIOLOGICAL MONITORING)

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Relevance

Hypertensive disorders in pregnant women are among the most common and significant cardiovascular diseases and syndromes. The significance of this problem is determined by the fact that pregnancy in women with hypertensive conditions is often accompanied by severe health problems and even death of the mother (up to 40% in some countries), high rates of childhood and perinatal morbidity and mortality, and a number of obstetric complications [2]. Hypertensive conditions in pregnant women is a concept encompassing various clinical and pathogenetic variants of hypertensive disorders [5].

In some cases, women have a history of chronic kidney disease before pregnancy, which is the etiological factor for increased blood pressure; in others, it is essential hypertension; in others, in normotensive women before pregnancy, the increase in blood pressure is caused by the pregnancy itself, the so-called gestational forms - gestational hypertension and preeclampsia [1].

Moreover, in the structure of the causes of arterial hypertension during pregnancy, the greatest role is played by the latter, which, according to MABrown and MLBuddle [4], constitute the predominant part of all hypertensive disorders in pregnant women: gestational hypertension - 43%, preeclampsia - 27%, essential hypertension - 19%, preeclampsia against the background of previous hypertension - 7%, secondary (symptomatic) hypertension - 4% [6].

The purpose of the study based on the results of a clinical and epidemiological study, to substantiate innovative strategic directions for the prevention of hypertensive and vegetative crises in pregnant women in the Fergana Valley of Uzbekistan.

Materials and methods

Object of study. During the period 2019–2021, 1,500 pregnant women from women's outpatient clinics at maternity hospitals in Andijan were examined.

Subjects of research there was venous blood and its serum for biochemical analysis.

Research methods. General clinical, epidemiological, instrumental (EchoCG, ECG, ultrasound examination of internal organs), biochemical (cholesterol, triglycerides, sugar) and statistical methods were used.

Results and discussion. According to our results, the prevalence rate and 3-year dynamic change in stress factors (SF) are noted by the following features depending on the age of pregnant women: at the age of up to 20 years – 19.12% (1st year of 3-year monitoring) and 13.24% (3rd year of the study), with a decrease in dynamics by 4.12% [RR = 0.22%; DU = 0.29 – 0.16; $\chi^2 = 62.45$; $P < 0.05$]; in the age group 21 – 24 years – 26.40% and 16.55%, with a decrease by 9.9% [RR = 0.32%; DU = 0.39 – 0.24; $\chi^2 = 29.37$; $P < 0.05$]; at 25–29 years old – 27.05% and 14.29% each, with a decrease of 13.8% [RR = 0.32%; DU = 0.39 – 0.24; $\chi^2 = 23.02$]; at 30–34 years old – 11.11% and 10.32% each, with a decrease of 0.8% [RR = 0.12%; DU = 0.18 – 0.7; $\chi^2 = 15.56$; $P < 0.05$]; at 35–39 years old – 10.34% and 8.62% each, with a decrease of 1.62% [RR = 0.11%; DU = 0.17 – 0.06; $\chi^2 = 7.62$; $P < 0.05$]; at 40–44 years old – 10.00% and 10.00%, without dynamic changes, respectively [RR = 0.11%; DU = 0.16–0.06; $\chi^2 = 12.8$; $P < 0.05$]; in the age group ≥ 45 years – 23.22% and 14.35%, with a decrease of 8.9% [RR = 0.27%; DU = 0.34–0.20; $\chi^2 = 81.55$; $P < 0.05$].

As can be seen from the presented analysis, a statistically significant decrease in the incidence of SF is observed across all age groups, and its detection rate increases almost twofold with age ($P < 0.05$). High prevalence occurs in the age groups 21–24 years, 25–29 years, and ≥ 45 years.

Conclusion

In the population of pregnant women, a higher frequency of the following risk factors for hypertensive and vegetative crises with characteristic dynamic changes is observed: stress 40.4% (with an increase of 0.5%), dyslipoproteinemia 13.2% (with an increase of 2.1%), excess body weight 33.0% (with an increase of 5.1%), hyperglycemia 21.3% (with an increase of 8.8%), physical inactivity 32.8% (with an increase of 6.1%) and low consumption of vegetables and fruits 38.0% (with a decrease of 0.1%). With age, the frequency of detection of risk factors increases by 3–4 times. The risk of an increase in risk factors begins from the first trimester of pregnancy, reaching the highest values in the third trimester. The presence of risk factors and comorbid pathologies in the population of pregnant women increases the likelihood of developing crises to 78.0%.

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