

## VARICOSE VEINS AND PREGNANCY: CAUSE OR NOT

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**Abstract.** *Study of varicose veins and pregnancy from the point of view of genetic predisposition. The study was conducted on 100 pregnant women with a history of varicose veins who were treated in the maternity complex of the Samarkand regional perinatal center during 2022-2023. The study used general clinical, laboratory (blood, biochemical), instrumental and statistical research methods. Antithrombin and prothrombin levels were higher in women with varicose veins during pregnancy than in healthy women. In women with varicose veins before pregnancy, this indicator was 3 times higher than in healthy women, and 2 times higher than in women who developed VV during pregnancy.*

**Keywords:** *varicose veins (VV), pregnancy, intravascular pressure, risk factor.*

Relevance. Varicose veins are three times more common in women than in men, and twice as often in pregnant women than in non-pregnant women. Varicose veins is one of the current topics of phlebology, and today the frequency of its occurrence has increased to 27% of the population. At the same time, 15% of them have a decompensated form of the disease with severe trophic disorders, and only 25% of patients receive adequate treatment.

Varicose veins of the legs are the most common pathology of peripheral veins, and the most important risk factor for them is the female gender. The causes of this epidemiological phenomenon are cyclical changes in the hormonal level and pregnancy. VV and pregnancy negatively affect each other. On the one hand, pregnancy leads to the development of varicose veins, on the other hand, the accumulation of blood in the venous vessels of the legs and small pelvis worsens the general and placental blood circulation. Finally, VV during pregnancy is often complicated by thrombophlebitis and external venous bleeding. After delivery, risk factors such as compression of the pelvic vessels by the pregnant uterus and an increase in general blood circulation capacity disappear, but varicose veins are difficult to recover from. Clinically, this is manifested by a gradual reduction in the caliber of varicose veins, as well as partial or complete regression of other manifestations of venous insufficiency. At the same time, a high level of female sex hormones and an increase in body weight lead to atony of the venous wall and increase intravascular pressure. In about 65-70% of cases, pregnancy becomes a trigger for the development of VV.

**Aim:** Study of varicose veins and pregnancy from the point of view of genetic predisposition.

**Materials and methods.** The study was conducted on 100 pregnant women with a history of varicose veins who were treated in the maternity complex of the Samarkand regional perinatal center during 2022-2023. Pregnant women were also monitored by phlebologists and hematologists. The average duration of the disease in the studied women was  $5.2 \pm 1.5$  years.

Examination of patients was carried out using generally accepted and standard clinical, laboratory (blood, biochemical) and instrumental methods. The degree of development of VV, that is, the assessment of the development of the disease, was evaluated by a phlebologist according to

the internationally proposed standards. At the same time, the anamnesis of obstetric and gynecological diseases was carefully analyzed. Special attention was paid to the absence of VV disease and the occurrence or increase in the level of varicose during pregnancy.

Among laboratory methods, a general blood test, biochemical analysis of blood, coagulogram, and a general analysis of urine were performed. Thrombin and antithrombin indicators were studied in all women.

Processing of the obtained data was analyzed with the help of Microsoft Excel software package and "STATISTICA 6.0" software package. Descriptive statistics methods included arithmetic mean (M), mean error ( $\mu$ ) and mean squared deviation (s) of markers with normal distribution.

Results: Level I disease activity was observed in 23 patients. II degree of VV was detected in 47 patients, III degree of the disease in 30 patients. So, among the examined patients, VV II and III activity was observed in almost 77% of women.

The duration of the disease in patients in the observation groups was  $5.2 \pm 1.5$  years, ranging from 1 to 10 years. Only 35 (35%) of VV patients in the study had disease duration up to 2 years, 2 to 5 years - 42%, and more than 5 years - 23% of women. Along with symptoms of varicose veins, patients under observation had complaints such as general weakness (88%), irritability, sleep and attention disorders (37%), agitation (19%), fear (6%). According to our data, anemia was the leading symptom except for VV. Anemia was observed in 80 patients (80%).

When we analyzed comorbidities, they were identified in 78% of patients, and comorbidities were not identified in 22% of women. Anemia of various forms and degrees was found in 80 (80%) VV patients. When we analyzed acute inflammatory proteins in blood serum, we observed that their amount increased. Biochemical analysis of blood serum in VV patients showed that all indicators were not different from normal indicators.

The general analysis of urine showed the presence of protein, leukocytes and epithelial cells in urine in only 18% of 100 patients. The frequency of proteinuria was 22%. It was observed in the form of VV with anemia and indicated the presence of other pathologies. Based on the data, it is worth noting that venous insufficiency is detected in 17% of cases in pregnant women, and in 50% of them this pathology was detected for the first time during pregnancy. Most often, varicose veins are detected during the second trimester of pregnancy and only 30% of cases - in the first trimester.

Based on the obtained results, we analyzed the effect of VV passage on pregnancy in the control and main groups. The obtained results showed that anemia on the background of VV is characteristic of most patients and was reflected in fetal growth retardation, changes in the placenta and changes in the blood system of the fetus in women of the main groups.

**Conclusion.** Women with a history of varicose veins had worse symptoms during pregnancy, while women without a history of varicose veins had a better overall health and vascular condition. The study of genes can determine whether there is a hereditary genesis in the origin of varicose veins. Antithrombin and prothrombin levels were higher in women with varicose veins during pregnancy than in healthy women. In women with varicose veins before pregnancy, this indicator was 3 times higher than in healthy women, and 2 times higher than in women who developed VV during pregnancy.

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