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PATHOGENETIC REASONS FOR THE DEVELOPMENT OF VARICOSE DISEASE IN PREGNANT WOMEN

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PATHOGENETIC REASONS FOR THE DEVELOPMENT OF VARICOSE DISEASE IN PREGNANT WOMEN

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Resume,

Purpose of research. To identify the causes, to study the effectiveness of a differentiated approach to the management of pregnancy and childbirth in women with varicose veins.

Material and methods. We have prospectively examined in terms 10-41 weeks of pregnancy, childbirth and the early postpartum period of 120 patients with varicose disease (VD), All surveyed pregnant women were divided into 3 groups: I group – the study group consisted of 75 pregnant women with varicose veins of the lower extremities (VVTLE). Comparison group II consisted of 45 patients with pelvic varicose veins (PVV). The control group consisted of 30 patients with uncomplicated pregnancy and childbirth.

Results: the Probability of developing VD in women increases with each subsequent pregnancy: with the first 2.1 %, with the second 9.6% of women, with the third 36.7% and with the fourth 38.3% of women. Observations have shown that VD suffer more residents of the city-11%, while residents of the village suffer less-7.8 %. Varicose disease often develops at an early onset of sexual life, abortions, inflammatory diseases of the uterus and appendages, a short (up to 1 year) interval between pregnancies.

Conclusion. From the anamnesis it was revealed that varicose disease was observed either in the mother or father, or in close relatives of both sexes which indicates a hereditary predisposition to varicose disease in patients with this pathology. During pregnancy, women with varicose veins were noted: the threat of abortion (the threat of premature birth) and chronic intrauterine fetal hypoxia - 2.5 times, chronic fetoplacental insufficiency. Pregnant women with CVI should be provided with joint supervision of obstetricians-gynecologists with phlebologists (or vascular surgeons), which should be given birth and after birth in order to prevent the progression of this pathological condition and prevent thromboembolic complications.

Key words: varicose disease, etiology, pregnancy

Relevance

Diseases of the circulatory system are currently the most significant medical and social problem for the world's population: their prevalence, clinical features and consequences largely determine the decrease in the quality and life expectancy of mankind [1,5,6]. Moreover, according to WHO experts, the most common peripheral vascular disease is varicose veins of the lower extremities [1,10,12]. Varicose disease (VD) is one of the most common groups of extra genital pathology of the cardiovascular system in pregnant women and puerperal, according to various authors, in 30-50% of women [5]. Varicose disease (VD) is a systemic disease of the vascular venous system of the body. This pathology is often found among women, which exacerbates the connection with pregnancy, in addition, complicates the course of pregnancy,

childbirth and the postpartum period and leads to an increase in maternal morbidity and mortality [6].

The clinical manifestations of varicose veins are atypical forms and pelvic overflow syndrome. Atypical localizations of varicose veins include the perineum, the external and internal genital organs. These forms are more common than is commonly believed [11,12]. The main cause of the syndrome is valvular insufficiency of the ovarian veins with blood reflux, which causes dysfunction of the uterus and its appendages [2,4].

In recent years, the subject of in-depth studies has been varicose veins of the small pelvis. Today, clarification of many issues related to the diagnosis and treatment of this pathology is required, since this problem is relevant not only for phlebologists, vascular surgeons, but also among obstetricians and gynecologists. Recent

studies have shown that one of the common causes of chronic pelvic pain can be venous plethora of the pelvic veins, which was detected in 1/3 of patients [1,5]. In the development of varicose veins, a significant role is played by a pregnancy [5,7,15]. Pregnancy is considered one of the main risk factors for the development of varicose veins [1,6,7,8]. The main provocative moments during this period are an increase in the volume of circulating blood, compression by the pregnant uterus of the inferior vena cava and retroperitoneal veins, a significant increase in intra-abdominal pressure during childbirth. However, the fact that the first signs of the disease appeared in the first trimester of pregnancy, when there is still no sharp increase in the volume of circulating blood and an increase in the uterus, confirms the role of hormonal changes in the pathogenesis of varicose veins.

The high incidence of varicose veins in pregnant women and puerperas is explained by an increase in the mass of circulating blood and cardiac output [1.3], an increase in venous pressure and blood flow in the lower extremities, hormonal changes in the body, and changes in microcirculation and hemostasis [4]. In patients with varicose veins of the lower extremities, the frequency (up to 30%) of gestational complications and the postpartum period is quite high.

Varicose veins of the lower extremities are detected in 20-40% of pregnant women, which is 5.6% of all extra genital pathology during pregnancy [1,2,6]. In 67.2% of patients suffering from varicose veins of the lower extremities, the first signs of the disease appear during pregnancy, and in 10.9%, pregnancy is an aggravating factor during this disease. In cases where varicose veins of the lower extremities develop during pregnancy, in 12% of pregnant women it is diagnosed in the first trimester, confirming the connection with a change in hormonal levels. In 87.9% of cases, the disease is detected in the second trimester of gestation [3,5]. This is especially true for pregnant women and women in childbirth and the postpartum period. During pregnancy, the risk of thrombotic complications increases several times. In addition, venous thrombosis and pulmonary thromboembolism during pregnancy and the postpartum period are observed 5.5 times more often than non-pregnant women, and after childbirth 3-6 times more often than during pregnancy [8,14]. The frequency of thromboembolic complications in obstetrics varies from 0.6 to 5.0 per 1000 pregnant women [11]. With all the evidence of a causal

relationship in the development of thrombosis, the reasons why this disease occurs in patients without any background diseases are still not completely understood.

However, overweight adversely affects the state of the veins. As well as during pregnancy, a full breath is impossible, which is necessary for the normal outflow of venous blood from the legs and internal organs [13]. Obesity is a proven risk factor for varicose veins in women. According to studies, an increase in body mass index above 27 kg / m² increases the risk of developing the disease by 33% [11,15], and a body mass index above 35 kg / m² is an independent risk factor for venous thromboembolism [15]. Lifestyle and activities are essential in the development and course of the disease. Violation of the outflow of blood from the lower extremities and the pelvis is associated with the factor of gravity and the result of upright posture of a person [9,10,13].

Despite the manifestation of active interest on the part of specialists in various fields in the problem of varicose veins among pregnant women, recently, there are many unresolved issues in the study of this disease, the frequency of which remains quite high. Some of them are associated with a variety of clinical forms of the disease, others with the capabilities of diagnostic methods, and others with the choice of treatment method. Lack of awareness among surgeons, gynecologists and doctors of other specialties leads to the preservation of the frequency of diagnostic errors and, accordingly, the conduct of inadequate treatment tactics. The lack of a unified therapeutic tactic for varicose veins is an incentive for further study of this pathology by both phlebotomists and doctors of other specialties.

Purpose of research. The connection with the above, the aim of the study was to identify the causes of varicose veins in pregnant women, to study the effectiveness of a differentiated approach to managing pregnancy and childbirth in women with varicose veins.

Material and research methods

To solve the tasks, we prospectively examined 120 patients with varicose disease living in the city of Bukhara and the Bukhara region in the period of 10-41 weeks of pregnancy, in childbirth and in the early postpartum period. All examined pregnant women were divided into 3 groups:

Group I - the main group consisted of 75 pregnant women with varicose veins of the lower extremities.

Comparison group II - consisted of 45 patients with varicose veins of the pelvic organs.

The control group consisted of 30 patients with uncomplicated pregnancy and childbirth.

In accordance with the goals and objectives, a research program was developed, providing for clinical and statistical analysis, a complex of biochemical, ultrasound studies, mathematical processing of the results. A questionnaire was drawn up, in which the following points were entered: passport data, age, constitutional data, heredity (the presence of venous diseases and their complications in relatives), the time of detection and duration of varicose veins, the mode of operation, extragenital and gynecological diseases. All pregnant women took into account the features of the course of pregnancy, childbirth, the postpartum period, the time of the onset of clinical manifestations of varicose veins depending on the duration of pregnancy. Examination of pregnant women began with a survey, examination of the legs, lower abdomen in daylight, first in a standing position, and then lying down. All pregnant women with varicose veins were consulted by a vascular surgeon.

Results and discussion

All examined, were comparable in age, parity, somatic and obstetric-gynecological history.

From the anamnesis it followed that varicose disease, namely varicose veins of the lower extremities was observed either in the mother, or in the father, or in close relatives of both sexes. So, in 43.3% of patients with varicose veins that formed during pregnancy or after childbirth, a hereditary predisposition to this pathology was noted. As a result of studies from the anamnesis among 1 and 2 groups of pregnant women, we found that VD developed during pregnancy 89.3%, subsequent pregnancy increased the degree of varicose veins. In most of the VD, it mainly developed during 3 and 4 pregnancies.

An analysis of the data revealed that varicose veins of the lower extremities are characteristic of women of reproductive age. So, in pregnant women aged 25-30 years, the onset of VD was noted significantly more often - 55.2%, and in patients older than 35 years of age these complications arose 10 times more often than 20 years old. The distribution of pregnant women with VD by age is shown in Figure 1.1.

Fig. 1

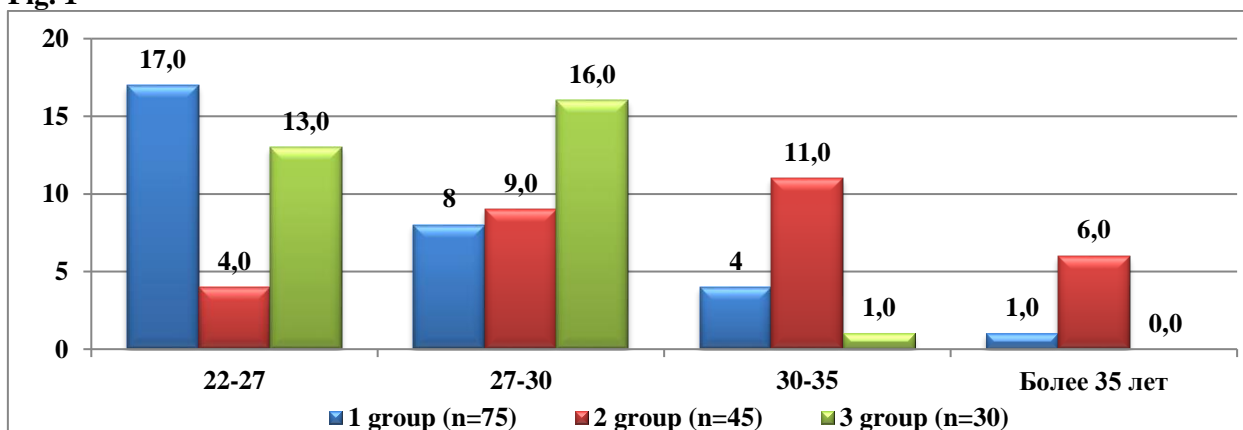


Fig. 1 Age distribution of pregnant women with varicose veins

It was found that the majority of pregnant women with WB were between the ages of 20 and 35 years old and averaged 29.5 ± 1.4 years in the study group and 26.6 ± 0.9 years in the comparison group. Patients in the control group were also in active reproductive age from 20 to 31 years. In pregnant women in the group with pelvic expansion, the age did not statistically

significantly differ, compared with the control group ($p > 0.05$) and amounted to 26.6 ± 0.9 years and 27.1 ± 0.6 years, respectively. From the anamnesis of the examined pregnant women was burdened with various extragenital diseases. An analysis of the somatic morbidity of the examined women is presented in Fig. 2.

Fig. 2

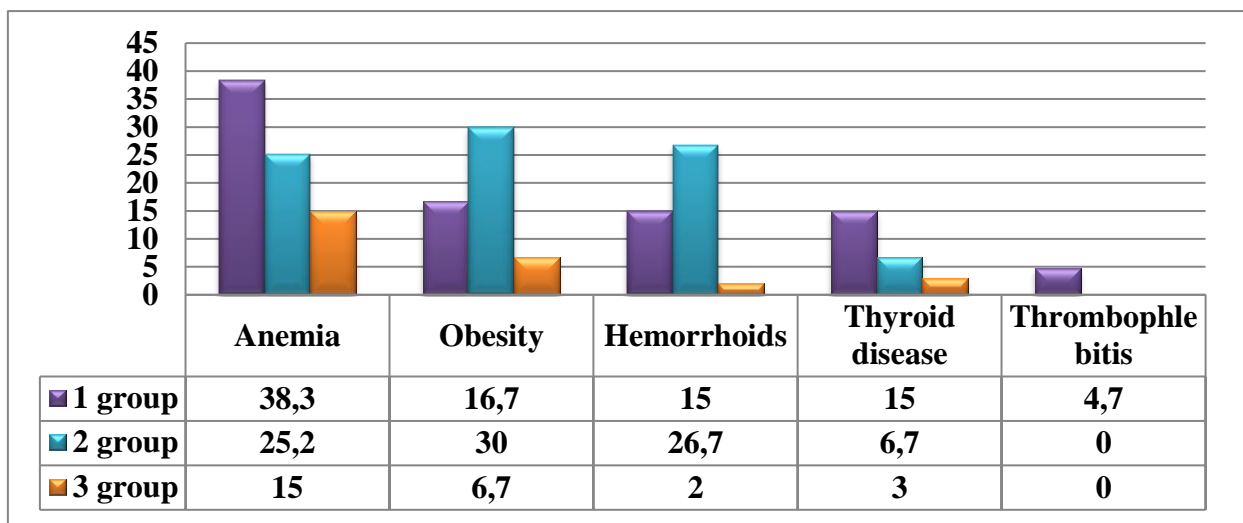


Fig. 2 Extragenital disease among the studied groups

The most frequent anemia was 38.3% among all pregnant women with varicose veins, obesity among the 1st group was 16.7%, out of the number of pregnant women with varicose veins of the 2nd group obesity was observed in 30% of women. In addition, as a result of the studies, it was found that pregnant women in the comparison group had hemorrhoids more often than in group I (26.7%).

From literature it is known that venous pressure in the lower extremities doubles during pregnancy. In addition, an increase in blood flow to the uterus contributes to an overload of the veins of the small pelvis and an increase in venous pressure in the lower extremities, which is accompanied by the expansion of the superficial veins. Perhaps in this case, with a combination of pregnancy and obesity with venous pressure increased even more, which contributed to the progression of varicose veins.

It should be noted that thrombosis with excess weight occurs 2 times more often than with normal body weight. The presence of hypercholesterolemia, hyperglycemia, hyperlipoproteinemia of the thrombogenic potential of the blood increases, in which platelets are more sensitive to the action of aggregating factors.

Body weight before pregnancy in pregnant women with varicose veins of the lower extremities was significantly lower ($p < 0.01$) than in the clinical comparison group, and amounted to 62.3 ± 2.54 kg and 71.57 ± 3.53 kg, respectively. During the first pregnancy, changes on one limb predominated; in multiparous children, bilateral expansion of the veins of the lower limbs was observed. The frequency of occurrence of gynecological diseases in the patients included in the study varied (Table 1).

Table 1 Gynecological history in the study groups

Disease	Main group (n=75)		Comparison group (n=45)		Control group (n=30)	
	abs.	%	abs.	%	abs.	%
Spontaneous miscarriages	9	12±6,2 ⁰	5	11,1±3,4**	3	10±6,3
Medical abortion	11	14,6±4,1*	6	13,3±3,9	5	16,7±2,7
Endocervicitis	15	20±3,4 ⁰	9	20±6,2**	3	13,3±4,1
Chronic metritis	19	25,3±3,4*	12	26,6±2,6	2	6,7±2,1
Chronic salpingo- oophoritis	14	18,6±4,7 ⁰	9	20±2,6	1	10±6,3

* $P \leq 0.05$ – the difference is significant between the main group and the comparison group;

** $P \leq 0.05$ – the difference is significant between the comparison group and the control group;

$P \leq 0.05$ – the difference is significant between the main group and the control group

The number of spontaneous abortions in pregnant women with varicose veins of the pelvis, in comparison with the control group and with pregnant women with varicose veins of the lower extremities, was significantly less ($p < 0.05$). The same data were obtained when analyzing the anamnesis of healthy patients and pregnant women of both groups with varicose veins of the pelvis with respect to indications of an undeveloped and ectopic pregnancy. Among pregnant women of group I, 9 patients underwent spontaneous abortions (12%), a history of artifact abortions was performed in 11

pregnant women (14.6%). In pregnant women with pelvic varicose veins (HRVMT), a history of 5 (11.1%) pregnant women had spontaneous miscarriages, with 2 miscarriages in the history of 12.7% of women, more than 3 miscarriages - 6.7%, respectively. These indicators, studies have shown that varicose veins more often develops with an early onset of sexual activity, abortions, inflammatory diseases of the uterus and appendages, and a short (up to 1 year) interval between pregnancies. The reproductive function of pregnant women was evaluated taking into account the number of pregnancies in history and their outcomes.

Table 2 *Pregnancy and childbirth parity in the studied groups*

Pregnancy and childbirth parity	Groups, number of patients (%)		
	Main group (n=75)	Comparison group (n=45)	Control group (n=30)
First pregnant	23 (30,6%)	13 (28,8%)	6 (20%)
Re-pregnant	39 (35%)	25 (39,6%)	19 (63,3%)
A history of 4 or more pregnancies	16 (14,2%)	4 (6,35%)	2 (6,67%)
Primiparous	14 (18,6%)	17 (37,7%)	6 (20%)
Multiparous	36 (48%)	23 (51,1%)	12 (40%)
Multiparous, childbirth 4 and more	9 (12%)	2 (4,4%)	0

* $P \leq 0.05$ – the difference is significant between the main group and the comparison group;
 ** $P \leq 0.05$ - the difference is significant between the comparison group and the control group;
 $P \leq 0.05$ – the difference is significant between the main group and the control group

As can be seen from the table. 2 during the obstetric examination of pregnant women in groups, the following results were obtained. In all 3 study groups, the majority of patients were pseudo-pregnant and multiparous. In the group of varicose veins of the lower extremities, there were 9 (12%) births with multiparous births (12%) pregnant women, in the comparison group 2 (4.4%), and in the control group there were none. In addition, in all groups there were enough pregnant women with a first pregnancy and first birth, respectively in the main group - 23 (30.6%) and 14 (18.6%), in the comparison group - 13 (28.8%) and 17 (37.7%), in the WB group - 6 (20%) and 6 (20%) Estimates of the reproductive function of pregnant women in groups varied. The data obtained are presented in table. 3.

In total, a history of healthy pregnant women had 115 pregnancies, 263 for pregnant women with varicose veins, 195 for patients with isolated pelvic dilatation. An average of 1.7 ± 1.1 pregnancies per patient, $3.1 \pm 1,5$ pregnancy, 2.15 ± 1.2 pregnancy, respectively, in groups. Parity in women with isolated varicose veins of the lower extremities was higher, which proves the connection of this pathology with subsequent pregnancies. The number of spontaneous abortions in patients with varicose veins of the pelvis, in comparison with the control group and with varicose veins of the lower extremities was significantly less ($p < 0.05$). The same data were obtained when analyzing the anamnesis of healthy patients and pregnant women of both groups with varicose veins regarding indications of an undeveloped and ectopic pregnancy.

Table 3

Characterization of the reproductive function of the examined women

Groups	№		Abortion		Childbirth			Non-developing pregnancy	Ectopic pregnancy
			Artificial	Spontaneous	Premature	Urgent	Caesarean section		
The main group (pregnant women with varicose veins of the lower extremities)	75	Abs	11	9	6	48	21	5	-
		%	14,7	12	8	64	28	6,7	-
Comparative group (pregnant women with varicose veins of the small pelvis)	45	Abs	5	6	2	30	13	2	1
		%	11,1	13,4	4,5	66,7	28,8	4,5	2,2
Control group	30	Abs	3	5	-	29	1	1	-
		%	10	16,7	-	97	3,4	3,4	-

* $P \leq 0,05$ – разница достоверна между основной группой и группой сравнения;

** $P \leq 0,05$ – разница достоверна между группой сравнения и группой контроля;

$P \leq 0,05$ – разница достоверна между основной группой и группой контроля

Previous pregnancies in healthy pregnant women ended in preterm birth only in 3.4%. It should be noted that in pregnant women in the group of varicose veins of the lower extremities, the number of preterm births was two times higher than in the group of healthy women ($p < 0.05$).

Early pregnancies ended in previous pregnancies in the group with aricosis of the lower extremities 64% and in varicose veins of the small pelvis 66.7%. The number of urgent deliveries in the history of the examined pregnant women with varicose veins did not have statistically significant differences compared with the group of healthy women.

From the anamnesis it was revealed that during the first trimester of pregnancy in 78.6% of the pre-pregnant, 81.2% of the re-pregnant main group proceeded without complications, in the clinical comparison group in 90% and 85% of cases, respectively. In the 2nd trimester, pregnancy proceeded without complications in patients with varicose vein disease in 75% and 66.2% in the clinical comparison group in 80%. The third trimester of pregnancy was characterized by a progressive course of varicose

veins in the first pregnant (37.5%), more often diagnosed with chronic placental insufficiency, fetal distress. In 25.5% of the pre-pregnant and 27.8% of the pre-pregnant, a progressive course of varicose veins was noted.

The complicated course of pregnancy also determined the frequency of preterm birth, premature poured amniotic fluid, fetal hypoxia. Our studies showed that varicose veins of the lower extremities were often accompanied by dilation of the veins of the uterus and basically had no clinical manifestations, and only in 13.4% of cases, pregnant women noted constant aching pain in the lower abdomen and lower back. With a combination of varicose veins of the lower extremities and varicose veins of the uterus, symptoms of venous insufficiency were revealed, which manifested themselves mainly after 20 weeks of gestation. The following symptoms of venous insufficiency were: a feeling of heaviness in the legs (79.0%), paresthesia (67.7%), cramps (45.2%), and pruritus (25.8%). Moreover, the first symptoms of venous insufficiency appeared on one of the limbs, with the course of pregnancy, the symptoms of the disease progressed and by 30-35 weeks of gestation were much pronounced.

Table 4

Features of the course of pregnancy in the examined groups

Indicators	Main group (n=75)		Comparison group (n=45)		Control group (n=30)	
	Абс.	%	Абс.	%	Абс.	%
The threat of interruption in the II trimester	11	14,7%	5	11,1%	2	6,7%
III trimester	7	9,3%	9	20%	4	13,3%
Early toxicosis	3	4%	2	4,4%	1	3,34%
Preeclampsia	4	5,34%	3	6,7%	0	
Fetoplacental insufficiency	1	1,34%	2	4,4%	0	
Fetal development retardation syndrome	1	1,34%	3	6,7%	0	
Pelvic presentation	3	4%	2	4,4%	1	3,34%
Repotting	0		1	2,2%	0	
Polyhydramnios	6	8%	4	8,9%	1	3,34%

* $P \leq 0,05$ – разница достоверна между основной группой и группой сравнения;

** $P \leq 0,05$ – разница достоверна между группой сравнения и группой контроля;

$P \leq 0,05$ – разница достоверна между основной группой и группой контроля

Pregnancy in pregnant women with varicose veins is characterized by a significant percentage of complications. In the first trimester of pregnancy, early toxicosis developed in 23.1%. The addition of pregnancy toxicosis in women with varicose veins indicates the early onset of an immunofluorescence situation, which is consistent with the concept of V. Savelyev (2002) on the autoimmune, autoaggressive genesis of this disease.

Pregnancy in 12.3% of patients with VD was complicated by the phenomena of a threatened miscarriage in the first trimester. In the second trimester, in 11.1% of patients, the state of threatened termination of pregnancy remained, despite the ongoing therapy in a hospital. In the group of pregnant women with WB, complications are much more common than in the control. The threat of abortion can be explained by a more burdensome obstetric history and as confirmation of hormonal imbalance in the fetoplacental system.

Table 5

Features of the course of childbirth in the examined groups

Nosological units	Main group (n=75)		Comparison group (n=45)		Control group (n=30)	
	Абс.	%	Абс.	%	Абс.	%
Untimely ilizit amniotic fluid	10	13,3%	4	8,8%	2	6,7%
Clinical mismatch	5	6,7%	4	8,8%	1	3,34%
Premature detachment of a normally located placenta	2	2,7%	1	2,2%	-	
Bleeding in the early postpartum period	6	8%	5	11,1%	-	3,34%
Soft birth injuries	9	12%	6	13,3%	3	10%
Pathological, preliminary period	7	9,3%	2	4,4%	3	10%

* $P \leq 0,05$ – разница достоверна между основной группой и группой сравнения;

** $P \leq 0,05$ – разница достоверна между группой сравнения и группой контроля;

$P \leq 0,05$ – разница достоверна между основной группой и группой контроля

Untimely discharge of amniotic fluid in pregnant women with varicose veins was observed twice as often as in the control group, and amounted to 13.3% and 8.8%, respectively.

The most frequent complication of labor was the weakness of labor activity 7 (9.3%).

The pathological course of childbirth contributes to an increase in the number of

bleeding. According to the results of our studies, blood loss of more than 400 ml in the subsequent period was observed in group I and group II in 2 (6.7%) and 7 (23.3%) pregnant women with WB, respectively, which was many times higher than the similar rates for healthy women in labor (3.34%). In all cases of hypotonic bleeding, manual entry into the uterine cavity was performed.

The outcome of pregnancy and childbirth is a set of qualitative indicators that reflect, mainly, the level of care provided to a pregnant woman. At the same time, perinatal outcomes are closely related to the state of health of the mother, which determines the degree of adaptation of her body to pregnancy and the severity of complications associated with the above. . An analysis of the course of the gestational period, the outcome of the birth and the postpartum period in 120 patients showed that vascular disorders in the complicated course of pregnancy were the direct or indirect cause of the main complications and their further consequences, both for the mother and the fetus. Timely delivery took place in 12 pregnant women with WB, which amounted to 58.3%. In 17 (41.7%) of them, delivery ended by cesarean section.

Spontaneous birth ended in pregnancy in 167 (87%) women, operative delivery by cesarean section - in 25 (13.2%). The number of preterm births was significantly higher ($p < 0.05$, compared with the control group) among patients with complicated pregnancy of varicose veins of the lower extremities and isolated varicose veins of the small pelvis (9.3% and 4.4%), respectively.

Pregnancy in all women in the control group ended in childbirth in the period 37-41 weeks. The average delivery period was 39.12 ± 0.95 weeks.

The main indications for abdominal delivery in the main group were acute fetal hypoxia 2 (2.7%). In the comparison group, indications for cesarean section were as follows: fetal distress 3 (6.7%), pelvic presentation 3 (6.7%). Pelvic imbalance (unsatisfactory progress of labor) was detected in all groups, somewhat more often in patients with varicose veins of the small pelvis (19.2%). Premature detachment of a normally located placenta was also observed in the main and in the comparison group, moreover, significantly more often ($p < 0.05$), compared with the group of healthy women) in puerperas with ectasia of the pelvic veins and placental insufficiency.

The postpartum period in women in the control group proceeded without complications.

The absence of pathological changes, normal uterine involution, confirmed by an echographic picture of the pelvic organs, were noted in 27 women in the control group. In 2 (6.7%) puerperas, signs of uterine subinvolution were revealed, in 1 (3.3%) - a hematometer. On days 4-5, puerperas with children were discharged home.

In most puerperas of the group with varicose veins of the lower extremities, the postpartum period proceeded without complications. In 4 cases (5.3%), the early postpartum period was complicated by the development of metroendometritis with an increase in body temperature to $37.5-38.0^{\circ} \text{C}$. Ultrasound examination showed signs of metroendometritis by expansion of the uterine cavity, the presence of gas, fibrin in it, and myometrial infiltration. In 1 (1.3%) patient, a hematometer was detected. 42 (56%) patients in this group were discharged home on days 4-5.

In the group of varicose veins of the pelvic organs, clinical and echographic signs of metroendometritis were found in 7 (15.6%) cases, a hematometer - in 2 (4.4%), signs of uterine subinvolution - in 3 (6.7%). At the same time, the size of the uterus exceeded the standards provided for this period of the postpartum period more than every fourth patient, the width of the uterine cavity - every sixth. In 3 (6.7%) postpartum women, the postpartum period was complicated by uterine vein phlebitis.

A sharp pain in the walls of the pelvis and the area of the appendages, an increase in body temperature to $37.5-38.5^{\circ} \text{G}$, changes in the clinical blood test and hemostasiogram were determined. An ultrasound scan conducted on days 3-5 showed signs of uterine subinvolution, which is detected by ultrasound with a mismatch in the size of the uterus provided for this period of the postpartum period, as well as expanded uterine veins were visualized, low-amplitude retrograde blood flow, signs of pseudo-pulsation of blood vessels were recorded. An ultrasound picture of the pelvic organs confirmed the clinical signs of uterine vein phlebitis.

Thus, the most severe postpartum course was observed in puerperas in groups with varicose veins of the small pelvis. The main criterion for a successful outcome of the gestation and childbirth period is the condition of the newborn, which depends on the effects of pre- and intrapartum risk factors and complications during pregnancy and childbirth. For a comprehensive assessment of newborns (1-5 days), an Apgar score was used.

All spontaneous births in the group of healthy pregnant women ended in the birth of live full-term babies with an Apgar score of 7 or more points in the first minute, and 8-10 points in the 5th minute. The average weight of newborns was 3468 ± 425 grams.

The growth of newborns ranged from 49 to 58 cm and averaged 52.1 ± 2.34 cm. The early neonatal period was uneventful, all children in the control group were discharged home in satisfactory condition 4-5 days after delivery.

Hypoxic syndrome in fetuses was detected in 16.2% of cases of the main group, versus 3.0% in the control group. In the main group 75 children were born. In satisfactory condition with an Apgar score in the first minute of 8-9 points, 62 (82.7%) children were born. In 11 (14.6%) children at birth, hypoxic syndrome was noted (Apgar score of 7 points) and 2 (2.6%) were born in serious condition: the first-minute birth score is below 6 points. The frequency of hypoxic syndrome in newborns from pregnant women with varicose veins is possibly due to the fact that during childbirth with prolonged contractions of the uterus, a compensatory-adaptive reaction breaks down against the background of spasm of the uterine arteries, difficulty in venous outflow and changes in the rheological properties of blood.

The average weight of full-term newborns from pregnant women with varicose veins of the lower extremities exceeded the weight of healthy newborns and amounted to 3650.0 ± 0.54 g, average length 51.3 ± 0.7 cm. In this group, 25 (33.3%) children born with a mass of more than 3800.0 g. In the comparison group, 45 live full-term babies were born. The average weight of newborns was 3435.5 ± 0.52 g and the average length of 50.7 ± 0.3 cm.

From a study by other authors, it is known that the clinical manifestation of chronic placental insufficiency is fetal malnutrition. According to our data, the mass of the newborn, even those born with hypoxic syndrome, was greater than that of mothers who did not suffer from varicose veins. Perhaps this is due to the fact that in the placenta in pregnant women with this pathology, the preservation of good vascularization made it possible to carry out compensatory reactions at the tissue level, and contributed to the birth of viable children, the mass of which corresponded to gestational age even with a weakened pregnancy.

Conclusions

1. The likelihood of developing varicose veins in women increases with each subsequent

pregnancy: in the first 1.3%, in the second 7.6% of women, in the third 31.7% and in the fourth 34.3% of women, which coincides with the opinions of several other authors. Our observations showed that varicose veins suffer more than a resident of the city - 11%, while residents of the village are sick less often - 7.8%.

2. In addition, varicose veins are more likely to develop with an early onset of sexual activity, abortions, inflammatory diseases of the uterus and appendages, and a short (up to 1 year) interval between pregnancies.

3. In studies from the anamnesis, it was revealed that varicose disease was observed either in the mother, or in the father, or in close relatives of both sexes, which indicates a hereditary predisposition to varicose disease in patients with this pathology.

4. During pregnancy, women with varicose veins noted: the threat of abortion (the threat of premature birth) and chronic intrauterine hypoxia of the fetus, chronic fetoplacental insufficiency - 2.5 times.

5. Pregnant women with varicose veins should be provided with joint observation of obstetrician-gynecologists with phlebologists (or vascular surgeons), which should be continued after childbirth in order not to miss the progression of this pathological condition and early prevention of thromboembolic complications.

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