

**PREGNANCY MANAGEMENT IN WOMEN WITH CONGENITAL
DEVELOPMENTAL FAULTS AND A HISTORY OF FROZEN
PREGNANCY**

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ANNOTATION

Prognostic risk factors for the development of congenital malformations and non-viable pregnancies are: heredity, consanguinity, complicated obstetric and somatic anamnesis, viral infection, inadequate antenatal care, hypercoagulation, low qualification of functional physicians, failure to comply with screening deadlines and examination methods. Prediction of congenital malformations of the fetus and non-viable pregnancies taking into account significant antenatal factors and proper pregravidarum preparation of women will prevent the development of fetal malformations, reduce unsatisfactory fetal and perinatal outcomes, which will have a positive effect on the health of the family and the whole society.

Keywords: congenital malformations of the fetus, non-viable pregnancy, folate metabolism.

Relevance. Currently, congenital malformations (CM) occupy an increasingly important place in the structure of childhood morbidity, disability and

infant mortality, occurring in 4-6% of newborns and contributing more than 20% to the structure of infant mortality [2,5]. Most children with congenital malformations (CM) die in the first months and years of life, and most of the survivors require constant medical and social care [3,6]; according to WHO, congenital malformations occur in approximately 1 in 33 children, which corresponds to approximately 3.2 million congenital malformations with disability and about 270,000 neonatal deaths per year. (World Health Organization) [1,4]. It is well known that folic acid intake during the gestational cycle reduces the risk of primary and secondary neural tube defects of the fetus [7,8].

The goal the result of our study was an improvement in perinatal outcomes in women with congenital malformations and a history of non-viable pregnancies.

Materials and methods of research. To achieve the objective of the study, a total of 110 women aged 20 to 40 years with fetal defects and a history of non-viable pregnancy were examined in the maternity complex of the 2nd clinic of the Tashkent Medical Academy based on the developed clinical and laboratory criteria. The studies were conducted 2 months to 1 year after the previous pregnancy, which was complicated by congenital malformations of the fetus and non-viable pregnancy. All 110 women were divided into 2 groups. The first group consisted of 40 women with a history of fetal malformations, the second group included 70 women with a history of non-viable pregnancy. The control group included 75 women with a favorable obstetric/perinatal history. The diagnosis was established on the basis of: obstetric history, clinical manifestations, biochemical, and ultrasound data.

During the observation period, all pregnant women received treatment and preventive courses, as well as the necessary drug therapy, taking into account obstetric and somatic pathology.

Table 1**Obstetric history of the examined women**

Anamnestic indicator	Control	1 group, (n=40)	Group 2, (n=70)

	group (n=75)					
	abs.	%	abs.	%	abs.	%
Early miscarriage	3	4	12	30***	18	25.7***
Medical abortion	3	4	23	57.5** *	31	44.2***
Non-viable pregnancy	0	0	20	50***	70	100***
Premature birth	2	2.6	6	15**	14	20***
Hypertensive disorders during pregnancy	3	4	10	25***	21	30***
Placental dysfunction	10	13.3	18	45***	27	38.5**
Premature detachment of a normally located placenta	0	0	5	12.5	10	14.2
Perinatal mortality - of which:	1	1.3	11	27.5**	15	21.4**
- antenatal	0	0	2	5	8	11.4
- postnatal	1	1.3	9	22.5** *	7	10***

Note: *-differences relative to the control group data are significant (*-
P<0.05, ***-P<0.001)

The analysis of the obstetric anamnesis showed that spontaneous miscarriages and abortions for medical reasons were common in both groups - 30; 25%, as well as 57.5%; 44.2%, respectively (Table 1). All the examined women in the 2nd group were diagnosed with a history of non-viable pregnancy - in 70 (100%) cases, while in the first group this indicator was detected 2 times less. In connection with the above, it is necessary to carefully collect anamnesis for timely prevention of possible complications during pregnancy.

We were interested in analyzing the most common complications associated with pregnancy. We found that the most common placental dysfunction was in

both groups (45 and 38.5%), possibly associated with inadequate vascularization of extraembryonic structures responsible for the trophism of the embryo in the early stages of development, thereby forming pathology of placentation and fetoplacental circulation and, as a consequence, chronic hypoxia and fetal suffering.

Studying perinatal mortality revealed that postnatal mortality was 2.3 times more common in the 1st group (25%), while antenatal fetal death was more common in the second group of subjects – 11.4%. Considering that there was a disorder in the folate cycle in the women we examined and a possible disorder of hypertensive disorders associated with them – Hypertensive disorders were 3 times more common in the 2nd group, while this indicator was found in 25% of subjects in the first group. From the data presented, it is clear that premature birth was a common complication of pregnancy, which was more often observed in subjects in the second group – 14 (20%). These data indicate that in patients with early and late miscarriages, hyperhomocysteinemia is one of the main forms of thrombophilic disorders among pregnant women with hypertensive disorders and at premature detachment of a normally located placenta and in There is probably an important role for elevated homocysteine levels in the development of vascular disorders.

Reducing maternal and infant morbidity and mortality is one of the priority medical and social tasks, and the main way to solve it is the prevention of pregnancy complications and fetal malformations. Currently, folates are actively used as monodrugs, as part of vitamin complexes and even oral contraceptives [9]. In this case, two types of vitamin are used: synthetic FC and L-methylfolate. Synthetic FC (designated as FC in the annotations) is a proven method of folate subsidy. When entering the body, FC undergoes a series of enzymatic reactions, resulting in the formation of both depot forms and active forms. The intake of synthetic FC has a direct correlation with an increase in the level of folates in blood plasma and erythrocytes and an inverse correlation with the level of

homocysteine [8]. All major studies of efficacy and safety were conducted on synthetic FC; toxic effects of FC have not been described.

The women in both groups we studied, who had a complicated obstetric-gynecological and perinatal history, were prescribed methylfolate at a dose of 800 mcg, and vitamin B12 (cyanocobalamin) 18 mcg per day, starting from planning and until the end of the entire pregnancy. The treatment was carried out jointly with a hematologist (according to the protocol, anticoagulants and antiplatelet agents were prescribed if necessary under the control of a hemostasiogram). After the prescription of methylfolate 800 mg, the level of homocysteine was studied dynamically. We found a significant decrease in this indicator in the blood, both in the first and in the second groups by 1.9 and 1.75 times, respectively, compared with the control group.

Analyzing pregnancy outcomes after treatment, we found that fetal congenital malformations were detected only in 2 (5%) patients of the first group, while in the other groups this indicator was not detected. These data confirm the correctness of the management tactics and the selected dose of methylfolate for the prevention of congenital malformations of the fetus. Non-developing pregnancy was in 7.5% of cases in the first group and in 5.71% of cases in the second group, perhaps due to a combination of other somatic pathologies. Pregnancies ended in term delivery in 85% and 92.8% of those examined in the first and second groups, respectively. When analyzing pregnancy complications, premature birth and hypertensive disorders were observed in group 1 6 times more often than in group 2. Placental dysfunction was observed more often in the second group (24.2%), while in the first group this indicator was 20%, in the control group it was not diagnosed. PONRP was diagnosed only in 1 case of the first group.(Table 2).

Table 2

Pregnancy outcomes in examined women after treatment

Anamnestic indicator	Control group, (n=75)	1 group of subjects	2nd group of subjects (n=70)

			examined (n=40)			
	abs.	%	abs.	%	abs.	%
Pregnancy after treatment	75	100	38	95	69	98.5
VPR after treatment	0	0	2	5	0	0
Childbirth after treatment	75	100	34	85	65	92.85
Non-viable pregnancy	0	0	3	7.5	4	5.71
Premature birth	0	0	5	12.5***	2	2.85
Hypertensive disorders during pregnancy	1	1.33	5	12.5***	2	2.85
Placental dysfunction	0	0	8	20***	17	24.2***
Premature detachment of a normally located placenta	0	0	1	2.5	0	0

Note: *-differences relative to control group data are significant(*- $P < 0.05$, ***- $P < 0.001$)

Conclusion. Thus, hyperhomocysteinemia is important in the development of pregnancy complications dependent on microcirculation, starting with spontaneous abortion in the first trimester of pregnancy and ending with hypertensive disorders, premature placental abruption and antenatal death of the fetus. The consequences of folate cycle disorders at different levels can be congenital malformations of the fetus. The presented data are a reasonable conclusion for the need for further research of folate metabolism, taking into account genetic predisposition and other components. Unfortunately, pregnancy itself is a condition in which the risk of venous thrombosis increases by 5-6 times. As a result of the influence of hyperhomocysteinemia during pregnancy, blood clots are formed and microcirculation in tissues is disrupted, including in the uterine wall and placenta, which leads to a number of obstetric complications both

in the early stages of pregnancy (embryo implantation defects, habitual miscarriage) and in the later stages (placental dysfunction, fetal growth retardation, fetal death).

Literatures

1. Akhmedov M.E. Features of the main risk factors for the development of congenital heart defects // Bulletin of the NDMC. 2022. No. 2.
2. Boboev K. T., Saidzhalilova D. D., Khodjaeva D. N., Mirzaeva D. B. The role of polymorphism of thrombophilic hemostasis genes in miscarriage during in vitro fertilization (IVF) // News of dermatovenereology and reproductive health. 2020, No. 1, Tashkent pp. 61-63.
3. Demikova N.S., Podolnaya M.A., Lapina A.S. Analysis of the epidemiological picture of congenital malformations in the regions of the Russian Federation. // Medical Genetics 2020; 19(7): 31-32.
4. Demikova N.S., Podolnaya M.A., Lapina A.S. The Importance of Genetic Research in Studying the Nature of Congenital Malformations // Russian Bulletin of Perinatology and Pediatrics, 2020; 65:(5)
5. Chorjeva G.Z., Sadikova D.R., Sadullaeva U.A. Metabolic therapy for placental dysfunction in pregnant women with avo-immunization.// SCHOLAR. VOLUME 1 | ISSUE 34 | 2023 December, 584-597, <https://doi.org/10.5281/zenodo.10416954>
6. Chorjeva G.Z., Sadikova D.R., Yuldasheva D.Yu., Sadullaeva U.A., Indicators of the proteolysis process in women with placental dysfunction against the background of ABO immunization. // Vestnik TMA No. 6, 2023. 149-152
7. Palacios AM, Feiner RA, Cabrera RM. Characterization of folic acid, 5-methyltetrahydrofolate and synthetic folinic acid in the high-affinity folate transporters: impact on pregnancy and development. *Reprod Dev Med.* 2023 Jun;7(2):102-107.

8. Yangibayeva DT, Yuldasheva D.Yu., Sadikova DR, Choriyeva GZ, Sadullayeva UA Influence of folate cycle MTHFR gene polymorphism on the process of fetus development in residents of the republic Uzbekistan. World Bulletin of public Health Volume 22, May 2023. P 43.
9. Yangibayeva DT, Yuldasheva D.Yu., Sadikova DR, Choriyeva GZ, Sadullayeva UA Folat tsikli genlari polimorf variantlarining inson embrional rivojlanishining dastlabki bosqichlari buzilishiga ta'siri. TMA Bulletin No. 9, 2022. Pp. 141-143.
10. Yoshizato T, Kozuma Y, Horinouchi T, Shinagawa T, Yokomine M, Ushijima K. Diagnosis of Fetal Abnormalities during the First Trimester.// Kurume Med J. 2021 Jul 21;66(2):85-92. doi: 10.2739/kurumemedj.MS662002.