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A RETROSPECTIVE ANALYSIS OF WOMEN WITH A COMPLICATED OBSTETRICS ANAMNESIS

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Abstract:

According to statistics, one of the main reasons of babies death is the birth of a fetus with birth defects. Nowadays, there are more than 4,000 known fetal malformations [3,12].

One of the most common fetal developmental defects is neural tube defects (NTDs), which is registered annually in 300,000 newborns in the world. Many surviving patients with this pathology are counted in disability groups depending on the localization of the spinal defect [2,3,7,8]. Spina bifida may be associated with plegia, bladder and bowel dysfunction, hydrocephalus, and learning disabilities [2,4,5,6,9].

Keywords: birth defects, fetal growth, homocysteine, malformation, neural tube defects

INTRODUCTION. The causes of NTDs are not fully defined, and it is believed that genetic and environmental factors play an important role in the genesis of its development. Maternal folate status in the pregravida and early stages of pregnancy is a major key of environmental factors. In 1995, Daly et al found a direct correlation between maternal erythrocyte folate concentrations and the risk of neural tube defects. According to him, as higher the concentration of folate in the mother's red blood cells, as lower the risk of malformation [3,8,10,11,12].

Clinical studies have also shown that homocysteine is an important marker in the occurrence of pregnancy complications and developing of its negative consequences. A significant risk of NTDs developing and low birth weight in newborns is associated with an increase of this substance concentration (hyperhomocysteinemia) [1]. The risk of hyperhomocysteinemia is the formation of thrombovascular pathology, as a result of this condition increase the risk of heart disease, blood circulation disorders between the uterus and the placenta, as well as the inability to carry a pregnancy, the undeveloped pregnancy, fetal hypoxia, fetal hypotrophy, general microangiopathy of the fetus, preeclampsia and eclampsia, premature detachment of the normally located placenta. Considering that there are many risk factors, it is worth mentioning the importance of pre-gravid preparation for all women planning pregnancy. It includes the following steps: genetic counseling, psychologist counseling, therapist counseling for detection of extragenital pathology and timely treatment. It is necessary to check the presence of sexually transmitted infections in special diagnostic laboratories, treat them and monitor the effectiveness of treatment. There is a need for antioxidant therapy, prevention of iron deficiency, and prevention of folate deficiency, which is a predictor of obstetric pathology, in the pre-gravid period [1,2,3,9,10].

THE AIM OF THE STUDY. Determining the frequency of women with the anamnesis of fetal development defects and fetal growth retardation in Uzbek population through retrospective analysis.

MATERIALS AND METHODS. In order to perform research tasks we took under control 185 women, and they were divided into two groups. The main group included 110 patients with a history of fetal birth defects and fetal growth retardation. The comparison group was made up of 75 healthy women who did not have fetal growth defects or growth retardation.

RESULTS. In the analysis of Table 1 was noted that, in women with fetal growth retardation (FGR) and fetal developmental defects (FDD) was high percentage of induced abortion. The percentage of spontaneous abortions in the main groups is significantly higher than that of women in the control group ($p<0.05$).

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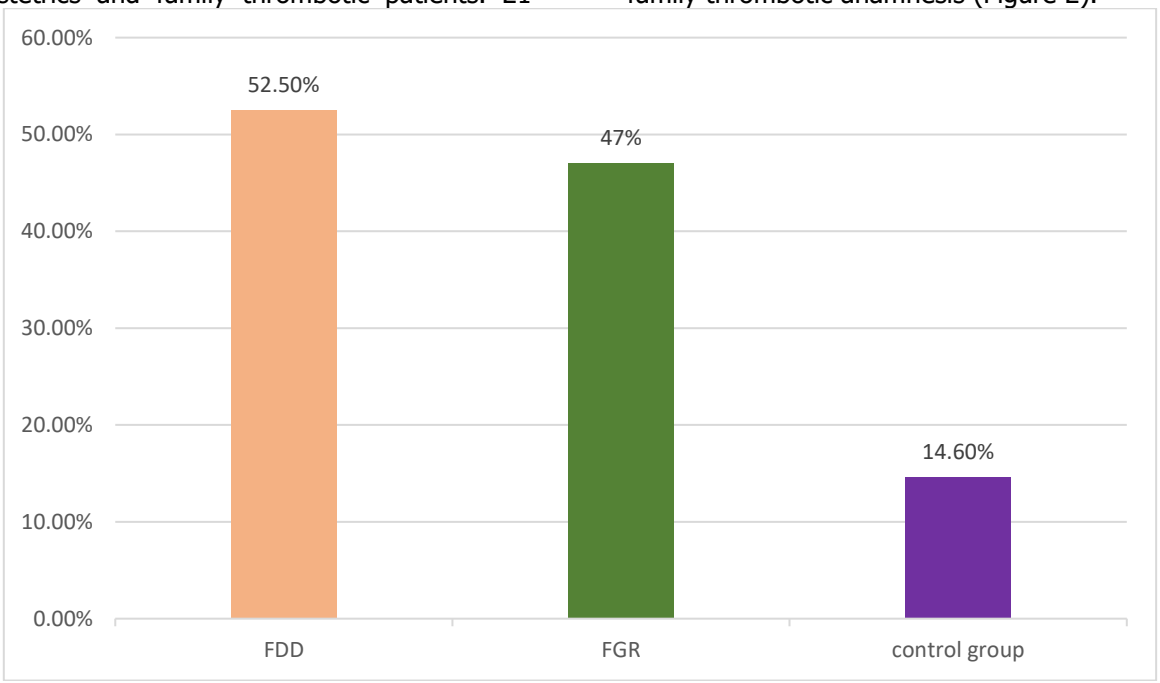
Table 1
Gynecological anamnesis of researched women

Results of previous pregnancy	Women with the anamnesis of FDD (n=40)		Women with the anamnesis of FGR (n=70)		Control group (n=75)	
	abs	%	abs	%	abs	%
Medical abortion in 1-2 trimesters	23	57,5%	30	42,8%	3	4%
Spontaneous abortion 1-2 in the trimester	12	30%	18	25,7%	3	4%
Undeveloped pregnancy	20	50%	70	100%	0	0
Premature birth	6	15%	14	20%	2	2,6%
Antenatal fetal death	2	5%	8	11,4%	0	0
Neonatal death	9	22,5%	7	10%	1	1,3%
Gestation hypertension	10	25%	21	30%	3	4%
Placental dysfunction	18	45%	27	38,5%	10	13,3%

*reliability of differences in indicators in women with HOT and HRN compared to the control group ($p<0.01$).

Particular importance was given to the collection of anamneses in patients with FGR and FDD - family obstetrics and family thrombotic patients. 21 women with FDD (52.5% of cases) and 33 women with FGR (47.1% of cases) were found to be complicated by family thrombotic anamnesis (Figure 2).



Picture 2. Family thrombotic anamnesis of women with FDD and FGR

Relatives of women (52.5% and 47% of cases) with a history of FGR and FDD often suffered from vascular pathology ($p>0.01$).

The average age of menarche was 13.5 years, the duration of menstruation was 31 days, and the duration of menstrual days was 6 days in women with FGR and FDD. Study of gynecological anamnesis is presented in Table 2:

Table 2
Description of the gynecological anamnesis of patients

Gynecological diseases	Main group (n=110)	Control group (n=75)
Chronic salpingo-ophoritis	23 (20,9%)*	5(6,6%)

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Endometritis	21(19%)*	3(4%)
Colpitis	62 (56,3%)*	25(33,3%)
Cervical erosion	14(12,7%) *	2 (2,6%)
Infertility	4(3,6%)*	0
Ovarian cyst	7(6,3%)	2(2,6%)
Leomyoma	2(1,8%)	1(1,3%)
Mastopathy	6 (5,4%) *	2(2,6%)

* - reliability of differences in indicators in women with antenatal death and fetal malformations compared to the control group ($p<0.05$).

In the table above, gynecological diseases are more common in women with a anamnesis of FGR and FDD than in women of the control group ($p<0.05$). Thus, 20.9% of women in the main group had chronic salpingo-oophoritis, 19% endometritis, 56.3% colpitis, and 12.7% cervical erosion.

Frequent diseases include chronic salpingo-oophoritis, uterine myoma, uterine ectopy, mastopathy, ovarian cyst, which can affect reproductive function ($p<0.05$).

In obstetric and gynecological history, 57 (51%) women with FGR and FDD had recurrent fetal growth retardation, 4 (3.6%) had recurrent spontaneous abortion, 20 (18.1%) had premature birth. Antenatal fetal death was observed in 10 (9%) women, and spontaneous abortion was observed in 24 (21.8%) women.

Table 3
Results of previous pregnancy of women with tha anamnesis of FGR and FDD

Results of previous pregnancy	Main group (n=110)	Control group (n=75)
Recurrent FGR	57(51%)	0
Recurrent spontaneous abortion	4 (3,6%)	0
Premature birth	20 (18,1%)	2(2,6%)
Fetus antenatal death	10 (9%)	0
Spontaneous abortion	24 (21,8%)	3(4%)
Neonatal death	16 (14,5%)	1(1,3%)

The infectious profile of Ureaplasma Urealitica, Mycoplasma hominis, Chlamydia trachomatis, Candida albicans, rubella, Cytomegalovirus, Herpes simplex virus was determined in patients with the anamnesis of FGR and FDD (Table 3).

Table 4
Infectious profile of patients

Patogen	Main group (n=110)	Control group (n=75)
Ureaplasma Urealitica	26(23,6%)	3(4%)
Mycoplasma Mycoplasma	12(10,9%)	2(2,6%)
Chlamidia trachomatis	7(6,3%)	1(1,3%)
Rubella IgG	4(3,6%)	2(2,6%)
Cytomegalovirus	40(36,3%)	8(10,6%)
Herpes Simplex (1 and 2 type), IgG	51(46,3%)	9(12%)

A high incidence of infectious diseases in patients with the anamnesis of FGR and FDD attracted attention. In the main group, Cytomegalovirus, Herpes Simplex (type 1 and 2) were 3 times more frequent than

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in the control group. It was also observed that Ureaplasma Urealitica was 6 times more common in the main group than in the control group. According to this result, it can be assumed that infection also has an effect on the development of not only FGR and FDD, but also pregnancy complications in women of the main group.

Somatic pathology was studied in all patients with the anamnesis of FGR and FDD. The structure of Somatic pathology is presented in Table 6.

Table 6

Somatic diseases in all subgroups of patients with a anamnesis of FGR and FDD

Diseases	Main group n=110)	Control group (n=75)
Diseases of the gastrointestinal tract	7(6,3%)	5(6,6%)
Varicose disease	26 (23,6%)*	4(5,3%)
Urinary tract infection	17(15,4%)	5(6,6%)
Cardiovascular diseases	11(10%)	2(2,6%)
Moderate and high myopia	3(3,3%)	2(2,6%)
Respiratory diseases	7(6,3%)	4(5,3%)
Obesity	5 (4,5%)	3(4%)
Hypothyroidism	69 (62,7%)	11(14,6%)
Autoimmune thyroiditis	41 (37,2%)	3(4%)
Anemia 1 degree	59(53,6%)	36(48%)
Anemia 2 degrees	12(11%)	13(17,3%)

*- reliability of differences in indicators in patients with antennal death and fetal defects compared to the control group ($p<0.01$)

It was found that the most common somatic pathology in patients with the anamnesis of FGR and FDD was hypothyroidism 62.7%, autoimmune thyroiditis 37.2%, varicose disease 23.6%, heart and blood vessel diseases 10%, urinary tract infection 15.4%.

Patients with the anamnesis of FGR and FDD and hyperhomocysteinemia had significant changes in the hemostasis system other than pregnancy: hypercoagulation in plasma binding (90% of cases).

After prescribing fraxiparin and aspirin in doses of 5700 ME and 100 mg, after 10-14 days, a positive dynamic - reduction of hypercoagulation signs were noted.

When analyzing the complications of pregnancy ending with FGR and FDD, it was found that the following complications were occurred in patients during pregnancy: fetal growth retardation syndrome (FGRS), premature detachment of the normally located placenta (PDNLP) ($P<0.01$). When analyzing the fetal malformations in women with the anamnesis of FDD: fetal cervical hygroma 3 (7.5%), anencephaly 8 (20%), omphalocele 3 (7.5%), Down syndrome 4 (10%), combination of several defects 7 (17.5%), fetal cleft palate and lip 3 (7.5%), syndactyly 2 (5%), heart defects 5 (12.5%), spinae bifida 2 (5%), anembryonia 5 (12, 5%), pulmonary hypoplasia 3 (7.5%), atresia ani 2 (5%), shoulder aplasia 1 (2.5%), hydrocephalus 3 (7.5%), microcephaly 1 (2.5%), megacystis was found in 1 (2.5%) woman (Fig. 3).

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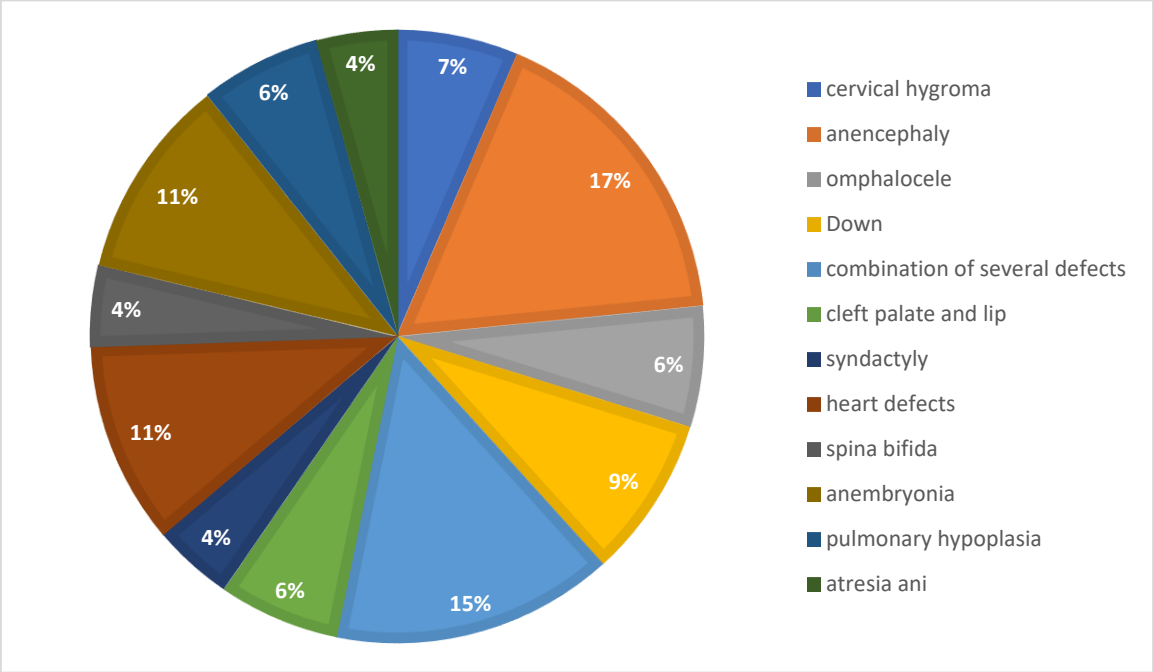

Picture 3. Occurrence of fetal malformations in women with the anamnesis of FDD.

CONCLUSION. Thus, in patients with FGR and FDD were observed complications such as vascular pathology (thrombosis of different localization in close relatives), presence of varicose veins, complicated obstetric anamnesis (premature delivery, fetal growth cessation, spontaneous abortion), severe preeclampsia, PDNLP, FGRS, placental dysfunction. These obstetric complications may be associated with the presence of hidden defects of hemostasis, which suggests that their impact on subsequent pregnancies should be avoided. It can be assumed that the basis of these complications may be hyperhomocysteinemia and genetic defects in the folate cycle.

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