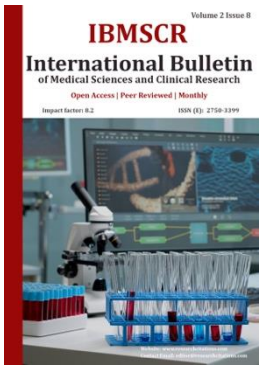

THE STATE OF AUTOANTIBODIES TO DOUBLE-STRANDED DNA-DS IN PREGNANT WOMEN WITH POLYHYDRAMNIOS.

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Annotation

The article provides a study of the content of autoantibodies to native DNA in the blood serum of pregnant women with polyhydramnios. The results of the study showed that with polyhydramnios, there is an increase in the concentration of AAT class G to native two-stranded DNA, which amounted to 47.6% of cases. The results obtained indicate that in pregnant women with polyhydramnios there is an increased frequency of detection of autoantibodies to DNA-DS by 1.7 times compared to those in pregnant women without polyhydramnios, which causes the risk of developing an autoimmune process in the body.

Key words: pregnancy, polyhydramnios, autoantibodies to native DNA.

Relevance . Polyhydramnios remains a pressing issue in modern obstetrics, as it is one of the leading causes of reproductive losses. In obstetric practice, this pathology occurs in 0.12%-6% of cases. One of the pressing issues in modern healthcare is antenatal prevention, reduction of perinatal morbidity and mortality. In solving this problem, diagnostics and timely treatment of complications during pregnancy, which negatively affect both the mother's condition and the development of children, are of great importance. [2,4,5,10,13,14]

Polyhydramnios complicates the course of pregnancy (miscarriage , premature detachment of a normally located placenta, chronic hypoxia and antenatal death of the fetus, etc.), childbirth (antepartum and early rupture of membranes, abnormal labor, hypoxia and intrapartum death of the fetus, bleeding, etc.) and the postpartum period (subinvolution of the uterus, endometritis, etc.) and creates a threat to the intrauterine patient [2,3,4,13].

Despite numerous studies on the mechanism of development of polyhydramnios, many aspects remain unclear, and a number of issues related to etiology, pathogenesis and treatment require further study. [5,-9,13,14]

Recently, special attention has been paid to autoimmune processes in the development of many diseases, including obstetric complications. In this case, the immune system attacks normal, healthy tissues of the body, that is, the body loses tolerance to its own tissue antigens. [1,2]

studying the state of antinuclear antibodies to native DNA class G in the blood serum of pregnant women will reveal new mechanisms for the development of obstetric complications, including polyhydramnios.

The aim of the study : to assess the state of autoantibodies (AAT) class G (IgG) to native double-stranded DNA (DS) in the blood serum of pregnant women with polyhydramnios.

Material and methods of the study. Sixty-seven pregnant women aged from 19 to 41 years were examined. All pregnant women underwent clinical, clinical-laboratory,

instrumental and functional (ultrasound) examinations. The diagnosis of polyhydramnios was established on the basis of clinical-laboratory and functional studies. The level of autoantibodies (AAT) of class G (IgG) to native double-stranded (DNA - DS) DNA in the blood serum was determined by the method of solid-phase ELISA - study (Vector-Best). All pregnant women were consulted by related specialists: a therapist, an endocrinologist, etc.

Results of the study: Clinical and laboratory studies showed that among 67 pregnant women, polyhydramnios was diagnosed in 21, which amounted to 31.3%.

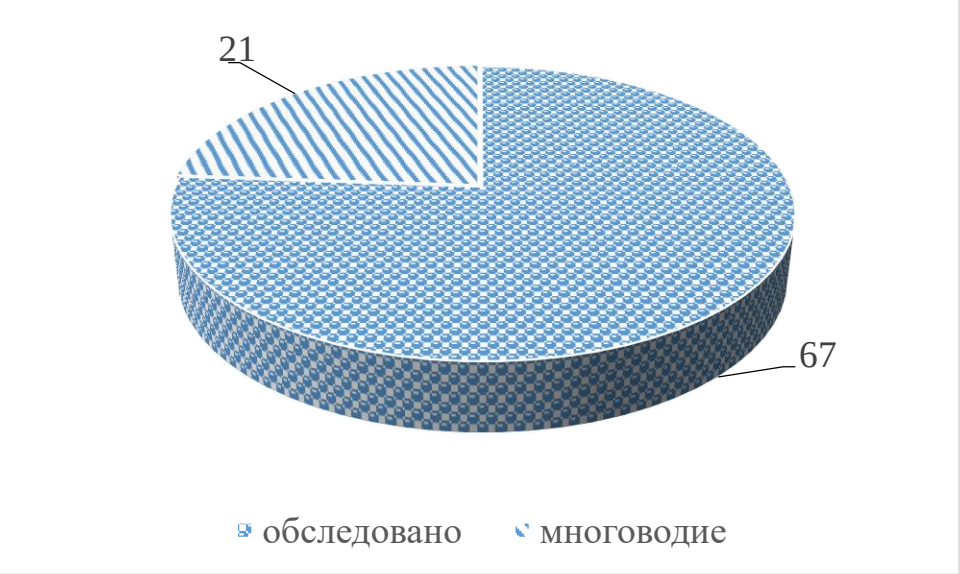

Fig. 1. Detectability rate of polyhydramnios in examined pregnant women (abs).

The results of the ELISA study of autoantibodies in the blood serum of pregnant women showed that among 67 pregnant women, 19 pregnant women had an increase in the level of AAT to native double-stranded DNA in the blood serum, which amounted to 28.4% of cases.

Whereas in the group of pregnant women with polyhydramnios, AAT to DNA - ds was detected in 10 pregnant women out of 21, which accounted for 47.6% of cases. Whereas in the group of pregnant women without polyhydramnios, AAT to DNA – ds – was detected in 9 patients, which accounted for 20% of cases, respectively. (Table 2).

The obtained results indicate that pregnant women with polyhydramnios have an increased frequency of detection of autoantibodies to DNA- DS by 2.4 times compared to pregnant women without polyhydramnios, which determines the risk of developing an autoimmune process in the body.

Table 1.

Frequency of detection of autoantibodies IgG to two (anti ds DNA in blood serum of pregnant women (abs , %)

o.	**Group**	**anti ds DNA** (IU/ml)	
	Pregnant women N =67	* n	%
	Pregnant women with polyhydramnios N = 21	10	47.6*
	Pregnant women without polyhydramnios N = 45	9	20

Note: n – number of patients examined; * n - number of patients with elevated AAT levels detected

- - reliability index in relation to the indices of pregnant women without polyhydramnios (P <0.05)

We analyzed the quantitative characteristics of autoantibodies (AAT) to native DNA in the blood serum of the examined pregnant women. * Table 2).

Table 3.

Autoantibody concentration indicators IgG to two (anti ds DNA) (IU/ml).

Group	**anti ds DNA** (IU/ml)
Control group (pregnant women without polyhydramnios) N = 45	17.8 ± 2.02
Pregnant women with polyhydramnios N= 21	30.2± 2.4 *

Note: * - reliability indicator in relation to the indicators of the control group. (P <0.05)

As follows from the table, in the group of pregnant women with polyhydramnios, there is an increase in the concentration of autoimmune antibodies of class G to double-chain AAT - DNK - DS by 1.7 times compared to the indicators of the control group of pregnant women without polyhydramnios and amounted to an average of 30.2 ± 2.4 IU / ml and was statistically significant. (P < 0.05). While the concentration of AAT class G to DNK - DS in the control group averaged 17.8±2.02 IU/ml, respectively.

Analysis of the clinical course of polyhydramnios taking into account the concentration of autoantibodies showed that in 60% of cases the process was acute. Thus, in the group of pregnant women with an increased concentration of AAT to DNA- DS , hypertension was noted in 3, and glomerolephritis in 1 .

Conclusions. Thus, the analysis of the obtained results shows that with polyhydramnios, there is an increase in the concentration of class G AAT to native double-stranded DNA, which amounted to 47.6% of cases. The obtained results indicate that pregnant women with polyhydramnios have an increased frequency of detection of autoantibodies to DNA- DS by 1.7 times compared to the indicators of pregnant women without polyhydramnios, which determines the risk of developing an autoimmune process in the body.

The obtained results indicate the development of a coupled autoimmune process in pregnant women with polyhydramnios and an increase in the concentration of class G AAT to double-stranded DNA- DS indicates the activation of autoantibodies . In our opinion, the obtained data have diagnostic and prognostic significance in the clinical course of polyhydramnios

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