the presence/absence of antigens of infectious agents and their titer. IgG class antibodies (TORCH infections) were detected in all examined patients. Latent monoinfection was diagnosed in ¼ of cases, mixed infection was diagnosed in ¾ of cases. Markers of the activity of the infectious process were detected IgM and high-avidity IgG antibodies, as well as detection of pathogen DNA in genital smears by PCR.

Results: The mutual reinforcing effect of antiphospholipidantibodies of the IgG class and TORCH infection on the likelihood of pregnancy complications and the developmental features of newborns in the early neonatal period was clearly demonstrated. Plasmapheresis, included in comprehensive preconception preparation, had a positive effect on both the course of antiphospholipid syndrome and TORCH infections. When comparing the frequency of detection of antiphospholipid antibodies in the examined patients before and after preconception preparation with the inclusion of plasmapheresis, the maximum decrease in antibodies to β2-glycoprotein-1 after efferent therapy in the main group using plasmapheresis was revealed: by 65.2% in group I and by 68 % in group II. At the same time, in patients who underwent standard therapy, no statistically significant changes were noted in the frequency of occurrence of antibodies to β2-glycoprotein-1: in group I - by 17.8%, in group IIc - by 7.3%. The frequency of detection of lupus anticoagulant in group I decreased by 52.8%, in group II - by 61.8%, in group II - by 31.4%. The use of plasmapheresis in women of group I made it possible to reduce the level of antiphospholipid antibodies by more than 3 times compared to the initial (before therapy) level. At the same time, most of the immunoglobulin indicators approached the physiological norm at the end of the course of therapy.

However, it should be noted that the prevention of thrombotic complications in combination with complex antiviral therapy contributed to a more pronounced decrease in the titer of antiphospholipid antibodies in TORCH-infected women than standard therapy in women with no markers of TORCH infection activity. Moreover, in a number of cases, against the background of standard therapy, a weak tendency to an increase in a number of indicators of the level of antiphospholipidantibodies in the blood was observed. Thus, in patients of group II after therapy, a tendency towards an increase in the concentration of antiphospholipid antibodies was revealed. This logic of changes in the content of antiphospholipid antibodies against the background of the use of plasmapheresis and the standard protocol for the prevention of thrombus formation with antiviral therapy allows us to assert the presence of immunological mechanisms of pregnancy complications in history, induced by viruses and coagulopathy, as an independent pathogenic unit. The use of a complex of therapeutic agents (antiplatelet agents, anticoagulants, plasmapheresis), dynamic observation, monitoring of laboratory parameters and timely detection and correction of complications made it possible to bring the pregnancy to a successful completion in 97% of cases, to normalize blood clotting indicators, which made it possible to reduce the dose of glucocarticoids to the minimum. One of the key points revealed in our study is the fact that plasma exchange reduces the titer of antiphospholipid antibodies, regardless of the presence or absence of TORCH infection (as evidenced by comparable levels of antiphospholipid antibodies after therapy in both subgroups of the main group).

Conclusion: Thus, in the course of a long-term study, we comprehensively studied the mutual influence of antiphospholipid syndrome and TORCH infection, and also that plasmapheresis at the stage of preconception preparation as part of complex therapy can reduce the incidence of pregnancy complications such as fetal growth restriction and the development of placental dysfunction. In our study, among 57 newborns from women who managed to carry their previous pregnancy to term beyond 34 weeks, 42.1% were diagnosed with fetal growth restriction. After preconception preparation and active management of pregnancy, intrauterine growth restriction syndrome was diagnosed in 11.4% of cases, i.e. 3.7 times less often. Thus, the incidence of intrauterine growth retardation syndrome during the use of plasmapheresis procedures in the preconception period is lower about 62.9%.

Keywords: Antiphospholipid syndrome , fetal growth retardation, TORCH infection, plasmapheresis

PP-024 Evaluation of the effectiveness of plasmapheresis in patients with habitual miscarriage and antiphospholipid syndrom

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Objective: To evaluate the effect of plasmapheresis on the level of antiphospholipid antibodies in women with habitual miscarriage against the background of antiphospholipid syndrome.

Methods: The study was carried out on the Center

for Family Planning and Reproduction of the Moscow Department of Health, Maternity Hospital №3, Moscow, Russian Federation. The main group included 80 patients diagnosed with "Habitual miscarriage due to the development of antiphospholipid syndrome", who underwent a course of plasmapheresis of 7 procedures. The control group consisted of 70 patients with antiphospholipid syndrome who did not undergo plasmapheresis courses. During pregnancy planning, all patients were prescribed complex therapy aimed at preventing venous thromboembolic complications.

Plasmapheresis was performed using an intermittent technique. Premedication included hormonal drugs and antihistamines. During one procedure, 968.5 ±102.1 ml of blood was extracted, followed by replenishment of at least 80% of the volume with freshly frozen donor plasma and blood substitutes. The extracted blood was centrifuged at a speed of 1500 rpm for 20 minutes in an OS-6M centrifuge, then plasma was removed and erythrocytes were washed three times with isotonic sodium chloride solution in a ratio of 1:1.5. The resulting erythrocyte mass was irradiated with a helium-neon laser on an ALOK-1 apparatus at a dose of (3-3.5)× 0.1 J/ml for 18-22 minutes.

The level of antibodies to phospholipids, cardiolipin, β2-glycoprotein-1 and β-subunit of human chorionic gonadotropin was determined by enzyme immunoassay using a MultiScan EX analyzer. The level of lupus anticoagulant was determined using an ACL-200 coagulometer (Instrumental Laboratory, Spain).

Results: After plasmapheresis, the detection rate of lupus anticoagulant decreased in the main group by 72.16% (p=0.0001). Before therapy, it was detected in the main group in 25 patients (31.25%), and after that – only in 7 (8.75%), in the control group – in 18 (25.71%).

The detection rate of total antibodies to phospholipids decreased by 62.26% in the main group (p=0.001). Before therapy, total antibodies to phospholipids in the main group were detected in 53 (66.25%) patients, and after that – in 20 (25%), in the control group – in 45 (64.28%) patients.

Antibodies to cardiolipin were detected before treatment in 28 patients (35%) of the main group and 24 patients (34.28%) of the control group, after the course of treatment – in 23 (28.75%). Thus, the frequency of detection of these antibodies decreased in the main group by 17.8% (p=0.47).

Antibodies to β2-glycoprotein-1 were detected before treatment in 55 patients (68.75%) of the main group and in 50 (711.42%) of the control group. After the course of treatment, antibodies were detected in 17 (21.25%) patients. In general, the detection rate of these antibodies decreased by 69.09% in the main group (p=0.001).

Antibodies to the β-subunit of human chorionic gonadotropin were determined in the main group before treatment in 15 patients (18.75%), after – in 9 (11.25%), in the control group – in 16 (22.85%). During therapy, the frequency of antibody detection decreased by 40% in the main group (p=0.49). These antibodies were verified after treatment only in combination with other markers of antiphospholipid syndrome.

Conclusion: The results of our study demonstrate a statistically significant decrease in the level of antiphospholipid antibodies in the blood of women after plasmapheresis procedures. The greatest effect was observed in relation to antibodies to β2-glycoprotein-1 and lupus anticoagulant, the least in relation to antibodies to cardiolipin. This method of efferent therapy has immunocorrective, detoxifying effects, improves the rheological properties of blood, which makes it possible to recommend its implementation at the stage of pre-gravidar preparation for women with antiphospholipid syndrome.

Keywords: Antiphospholipid syndrome, lupus anticoagulant, cardiolipin, plasmapheresis, habitual miscarriage, β2-glycoprotein-1

PP-025 Assessment of knowledge, attidues and practices, on COVID-19 vaccine among high risk pregnant and lactating women: a cross-sectional study

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Objective: To assess the knowledge, attitudes, and practicesofCOVID-19 vaccine among high-risk pregnant and lactating women in a tertiary hospital. Specific Objectives: 1. To describe the socio-demographic characteristics of patients seeking high-risk antenatal care 2. To determine the co-morbidities of the study population and their COVID-19 vaccine history 3. To evaluate the knowledge on COVID-19 vaccine of high-risk patients 4. To identify attitude affecting women's decision-making regarding COVID-19vaccine 5. To determine the practices regarding COVID-19 vaccine among high-risk women.