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HEMOSTASIOLOGICAL FEATURES OF SEVERE PREECLAMPSY IN PREGNANT WOMEN IN THE FIRST TRIMESTER OF PREGNANCY

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Abstract
Preeclampsia is a severe complication of pregnancy that occurs after the 20th week of gestation. The main symptoms are an increase in blood pressure in combination with proteinuria (the presence of protein in the urine) [6,7]. The manifestation of severe preeclampsia is visual impairment, the functioning of the central nervous system, thrombocytopenia, impaired renal function, fetal growth retardation syndrome [1,3,4]. As a rule, this complication becomes an indication for emergency delivery, as it poses a real danger to the life of the mother and child. According to statistics, preeclampsia accounts for 16% of maternal mortality during pregnancy [2,5,6,7]. At risk: women over 35 years old, as well as those who suffer from chronic arterial hypertension, kidney disease, diabetes mellitus, obesity, carry multiple pregnancies and have a family history of preeclampsia [1,2,4].

Keywords: Preeclampsia, thrombocytopenia, blood coagulation, hemostasiological indicators, biochemical indicators.

Introduction

Purpose of the study: to assess the state of the blood coagulation system in women with severe preeclampsia based on the study of hemostasiological indicators.

Research methods. We conducted a blood coagulation system study in 72 pregnant women in the third trimester, of which 32 were physiological pregnancy and 40 pregnant women with severe preeclampsia. The age of the surveyed women ranged from 21 to 41 years. We are studying the state of the thrombocytic, procoagulant, and fibrinolytic links of the hemostasis system and their assessment was conducted in dynamic observation. All pregnant women were observed in the perinatal center of the city of Bukhara. Written agreements were taken from everyone. Statistical analysis was performed using the Statistica package, according to the Fisher-Student method. The reliability of the results was determined if $p \leq 0.05$.

Research results. A complete blood count was determined in all pregnant women, and no significant changes were found in the two groups. Only 2 indicators were changed in the

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comparison group: platelet and TBC levels. It was increased in the comparison group. The IVC level was increased by 2.0 minutes. In the pregnant women of the control group, as expected, there were no significant deviations from the norm in the hemostasiological aspect. Significant decrease in the average platelet count in women with severe preeclampsia compared to healthy pregnant women in the third trimester of pregnancy (161.2 ± 9.6 × 109 / l and 193.5 ± 8.7 × 109 / l) (P <0.05). When studying platelet aggregation activity, we found that platelet aggregation activity was significantly higher in the main group -112.7 ± 3.5 compared to the control group - 99.8 ± 3.3 (P <0.05). When studying the APTT, we found its reduction in the main group to 27.3±1.3 s, compared to the control group - 35.0±2.07 s (P<0.01). The concentration of fibrinogen, the main blood coagulation substrate, was somewhat higher in pregnant women with preeclampsia - 4.0±0.2 g/l compared to pregnant women with physiological pregnancy - 3.5±0.17 g/l. The above data are summarized in Figure 1.

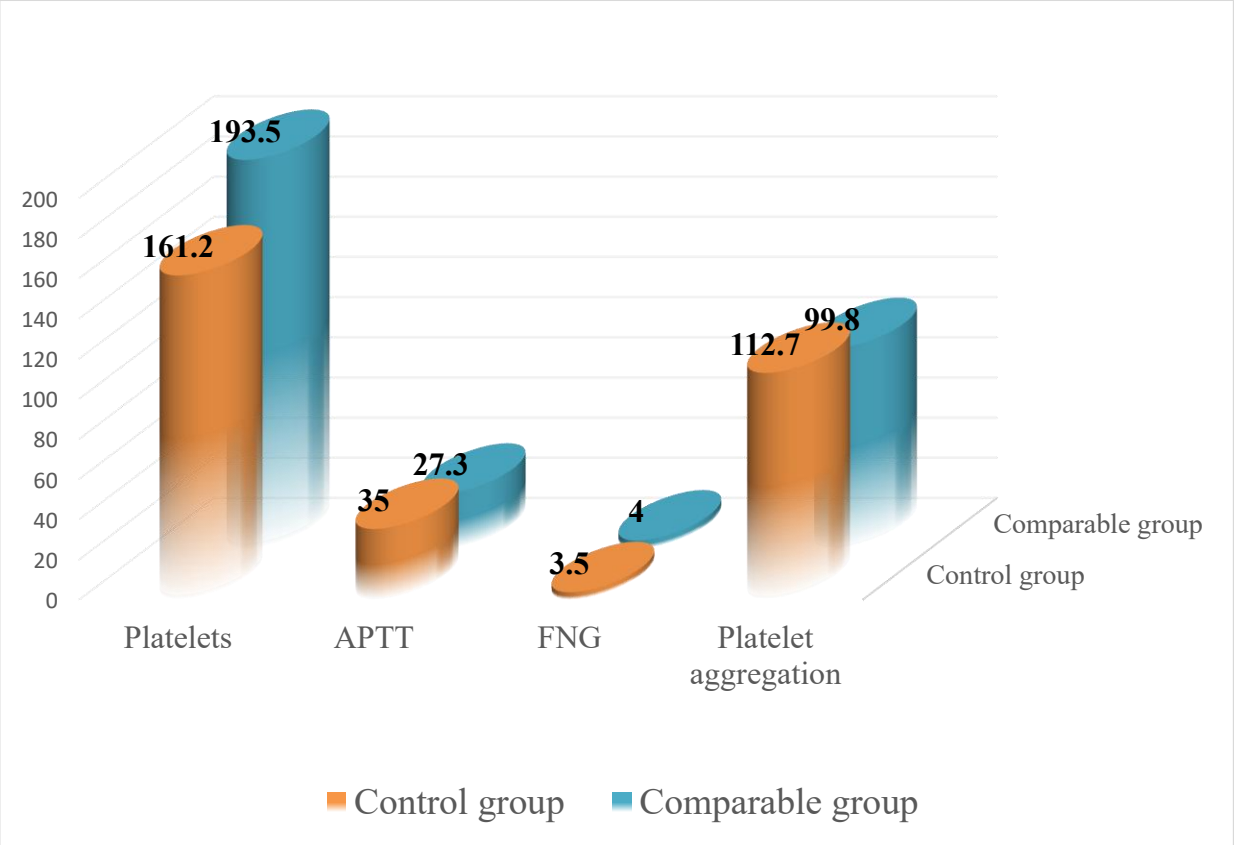

Figure 1. Hemostasiological aspects in the compared groups.

As can be seen from Figure 1, all hemotaziological indicators were elevated in the group with severe preeclampsia, which is a reliable sign of disorders in the mother-placenta-fetus system. In addition, liver tests were performed on pregnant women. He showed the following data.

Severe PE less than 24 hours, women aged 18-45 years after natural conception at gestational age, starting from 24 weeks (up to 34 weeks in 50%), with blood pressure below 160/100 mm Hg, initial creatinine levels from 33.0 to 349.5 µmol/l and an increase of 9.47 times, bilirubin from 5.0 to 104.0 µmol/l and an increase of 1.56-24.63 times, alanine aminotransferase (ALT) from 8.7 to 807.0 units/l and an increase of 1.0-318.8 times, aspartate aminotransferase (AST) from 15.0 to

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1238.0 units/l and an increase of 1.68-429.53 times, lactate dehydrogenase (LDH) from 568.4 to 2315.0 units/l and an increase of 2.79-9.89 times, in 22.73% of cases - no pathognomonic complaints and with a satisfactory general condition - may develop into a life-threatening condition, ending in MS. The data are shown in Figure 2.

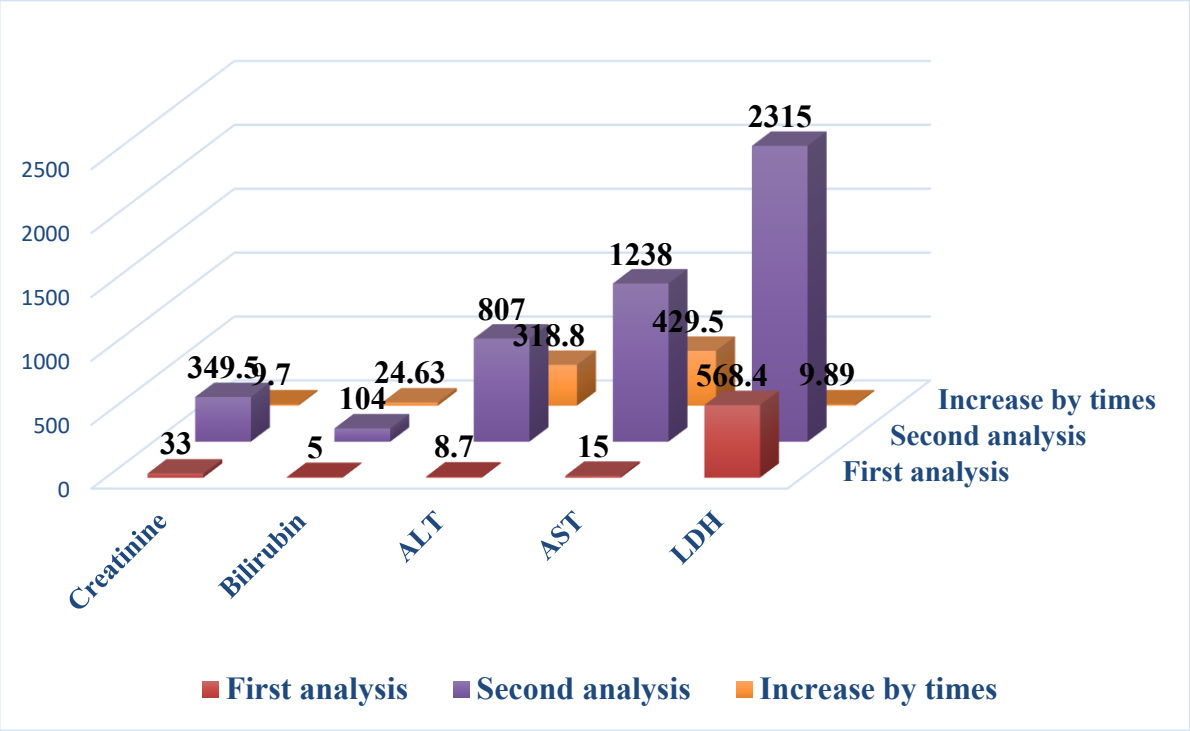

Figure 2. Biochemical indicators of the liver test.

Liver test indicators also showed differences between the control and comparison groups. This indicates the reliability of the data. Increasing liver test indicators provides additional data for predicting complications in severe preeclampsia. This can lead to irreparable consequences for both mother and fetus. These indicators, in addition to the symptoms characteristic of severe preeclampsia, make it possible to predict possible risks of complications. To predict complications in earlier stages, it is necessary to conduct these analyses in each trimester of pregnancy to avoid missing a turning point that leads to pregnancy complications.

Conclusions

Analysis of patient observations indicates the staged development of platelet hyperaggregation followed by hypercoagulation. This is confirmed by high platelet aggregation, hyperfibrinogenemia, and shortened APTT.

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