

THE IMPACT OF PERINATAL RISK FACTORS AND CHRONIC KIDNEY DISEASE ON MATERNAL AND NEONATAL HEALTH

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Abstract: The pathology of the urinary system in pregnant women occupies one of the leading places among extragenital pathology of gestational period [1]. The article presents an analysis of postpartum status of pregnant with extragenital diseases and replacental diseases of the urinary system, and also analyzed the period of early neonatal adaptation of newborn children, whose matter have chronic diseases.

Key words: pregnancy, risk factors, premature birth, newborn, perinatal mortality.

The reproduction diseases of the urinary system and extragenital diseases of pregnant women represent an actual and largely unsolved problem of clinical urology, The Ministry of Health and Human Resources has been working on the issue of obstetrics and neonatal care because of the high incidence of diseases in pregnant women, as well as the adverse effects on foetal and newborn health. The frequency of urological pathology in the last 10 years increased by 3.5-4 times and came to the 2nd place (after anemia). [5] According to O.A. Transada and T.S. Lukyanova, acute pyelofiasis of pregnant women is the cause of obstetric complications such as gestosis (30-40%) and spontaneous abortion (15-20%) [3].

Adverse effect of kidney pathology and extragenital diseases in pregnant women on the condition of the fetus and newborn is manifested by delayed fetal development, chronic fetal hypoxia and high perinatal mortality. [1, 2, 4] The presence of this pathology in mothers increases the likelihood of feces-inflammatory diseases in newborn children [5]. The above data confirms the relevance of the studies and highlights the need to find new ways to minimize the effects on the newborn child.

The aim of this study was to analyze the pregnancy trend according to the clinical type of kidney disease, to determine the frequency of the threat of abortion, Premature delivery and clinical status of newborns in pregnant women who have MCS and EGP during pregnancy. The study was conducted at the family polyclinic 48 of Tashkent from 2019 to 2021.

Subject and object of study. The study was conducted among pregnant women admitted to a clinic at the family polyclinic 48 of Tashkent between 2019 and 2021. The total number of those examined was 758, out of which 409 (53.9%) of pregnant women were diagnosed with pathology of the urinary system and extragenital diseases. All pregnant women were divided into 2 groups: 1st group of pregnant women with MVA replacer diseases (chronic pyelofibrillation, pyolitropic pyelofibrillation, asymptomatic bacteriuria) 241 (58.9%), the 2nd group is pregnant with extragenital pathology - 168 (41%) women (comparison group). The average age of pregnant women in the first group was 27.5 0.93 years, the average body mass index (BMI) 18.0 0.48. In the second group, the average age of pregnant women is 27.2 0.87, and the BMI is 22.0 1.58.

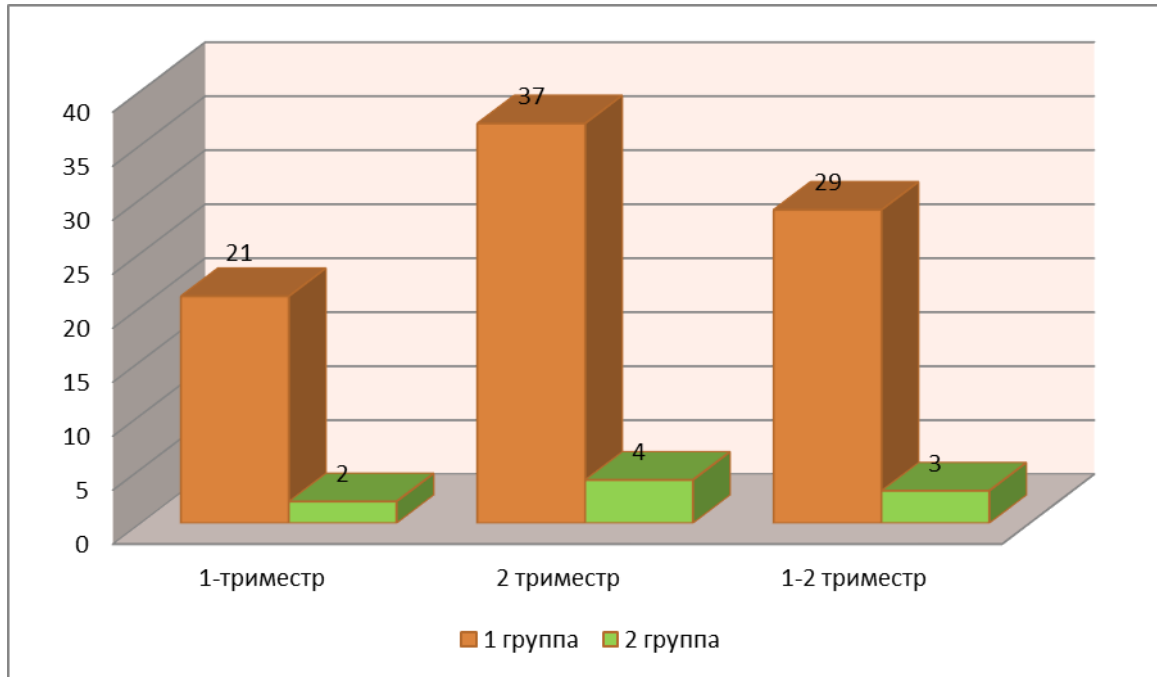
The study analyzed the pregnancy trends in the clinical type of kidney diseases, the characteristics of the pregnancy trend for the risk of termination of pregnancy, premature birth, foetal and neonatal condition.

Mathematical processing of all results obtained during the study was carried out by methods of variation statistics. The complex data is presented as an average value and an error of average (M m). To assess the reliability of quantitative indicators with continuous values, the t -Student criterion will be

used. The non-parametric Mann-Witney criterion was used to assess the reliability of quantitative indicators. The material was processed by the statistical program «Biostat», and also by the Microsoft Excell program.

In the study of 1- group of pregnant women, 87 (36%) were accompanied by a risk of interrupting gestation and were divided into the following subgroups:

21 (24%) women with risk of termination in the first trimester of gestation, 37 (42%) patients with risk of termination in the second trimester, 29 (33%) women with risk of abortion in I and II trimesters (Figure 1).

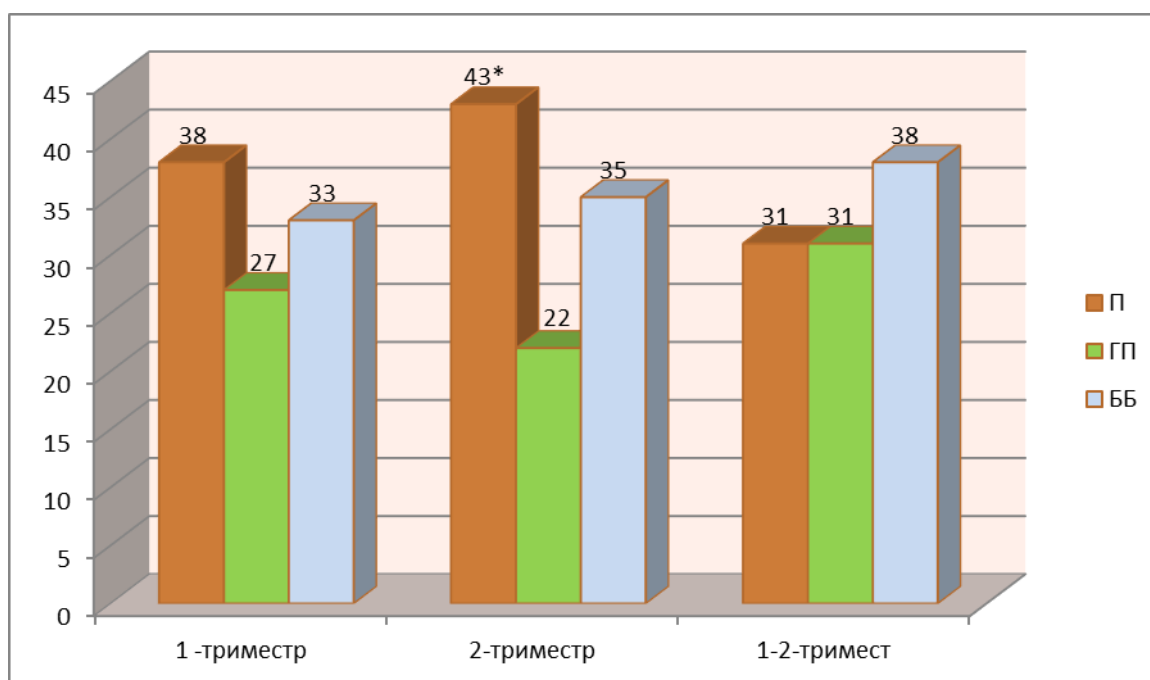


Note: PR-premature births

Figure.1. Analysis of the pregnancy (n=409)

In 2 groups of 168 pregnant women, the risk of abortion was found only in 9 women (5.3%) and relatively more in 2-trimester pregnancy (44.4%).

We then analyzed the indicators studied by clinical types of kidney diseases.



Note: * $p < 0.05$ validity of the differences relative to 1-trimester

Figure 2. Analysis of the pregnancy course according to the clinical type of kidney disease (%)

As can be seen from the data obtained, in 1-trimester the risk of interruption of gestation of women with chronic pyelofitritis was observed, in 38% (n=8) cases, with gestational subepifitritis in 27% (n=6) and in women who had a asymptomatic 7, which was 33 percent.

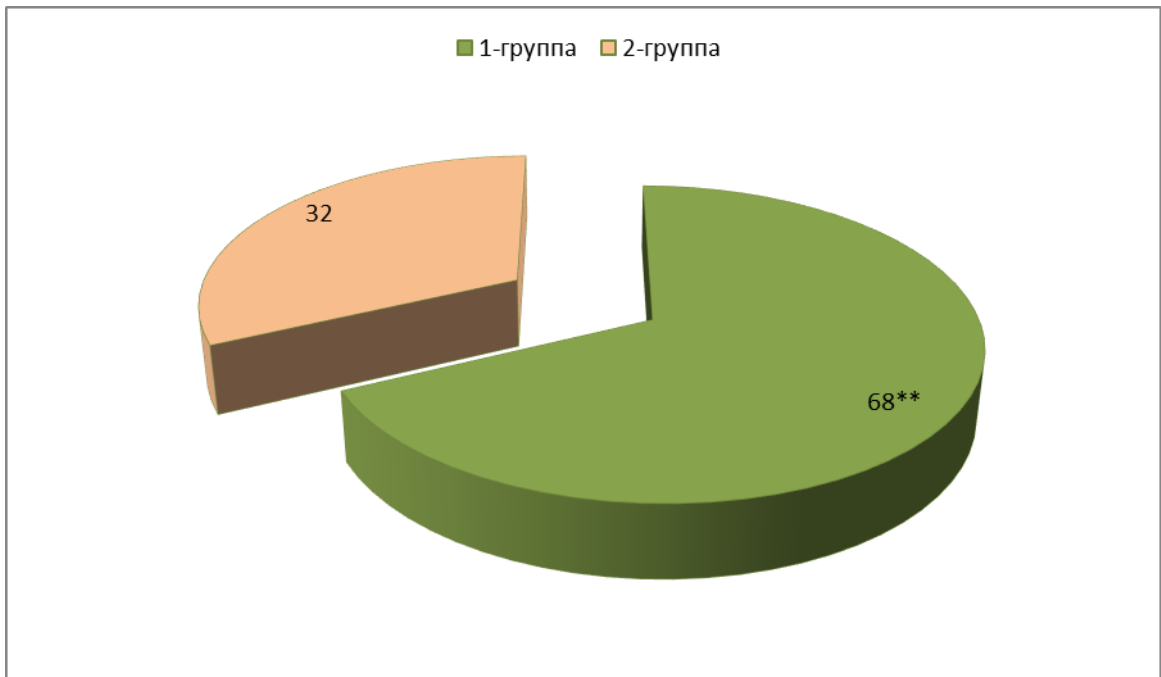
Thus, in 1 -trimester of pregnancy the risk of termination of gestation is relatively high in women with chronic pyelofiphritis, than gestational pyelofirethrum and asymptomatic bacteriuria.

In 2-trimester pregnancy, the same pattern is observed in women with chronic pyelonephreomytochromatophrectomy of gestational discontinuation, 43% (n=16) cases, with gestational premenopause at 22% (n=8) and with asymptomatic bacteriuria in 35% (n=13).

Thus, in 2-trimesters the risk of abortion in women with chronic pyelofitritis compared to 1-trimester increased by 50% ($p < 0.05$) (from 8 to 16 pregnant women) The data obtained are reliable.

In 1 and 2 trimesters, 29 (33%) pregnant women were at risk of termination, with the same number of women with chronic and gestational pyelonephritis (31.31%) but in women with asymptomatic bacteriuria relatively high (38%).

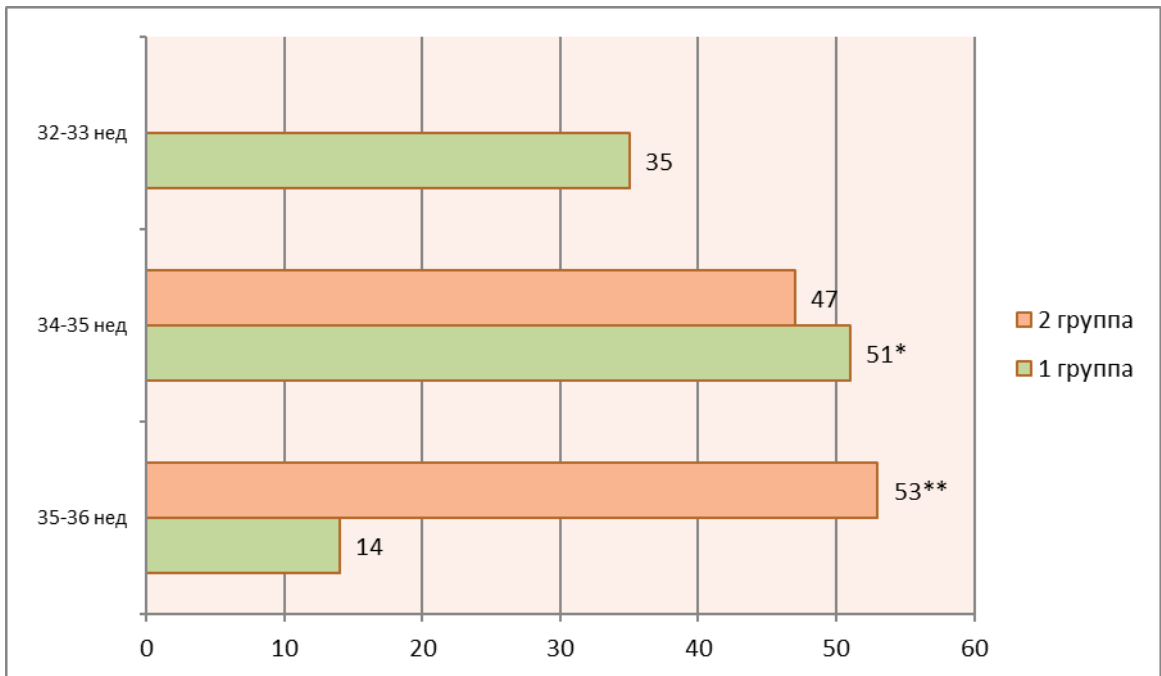
The next step was to analyze the occurrence of preterm birth in the examined pregnant women. In 1 group of women, 51 (21.2%) and in 2 group of women, 17 (10%) registered premature births. The data obtained showed that patients of group 1 exceeded the frequency of preterm births of patients of group 2 by 33% (figure 3).



Note: **p<0.01 validity of differences relative to 1-trimester

Figure 3. Analysis of premature births in the analyzed groups (%)

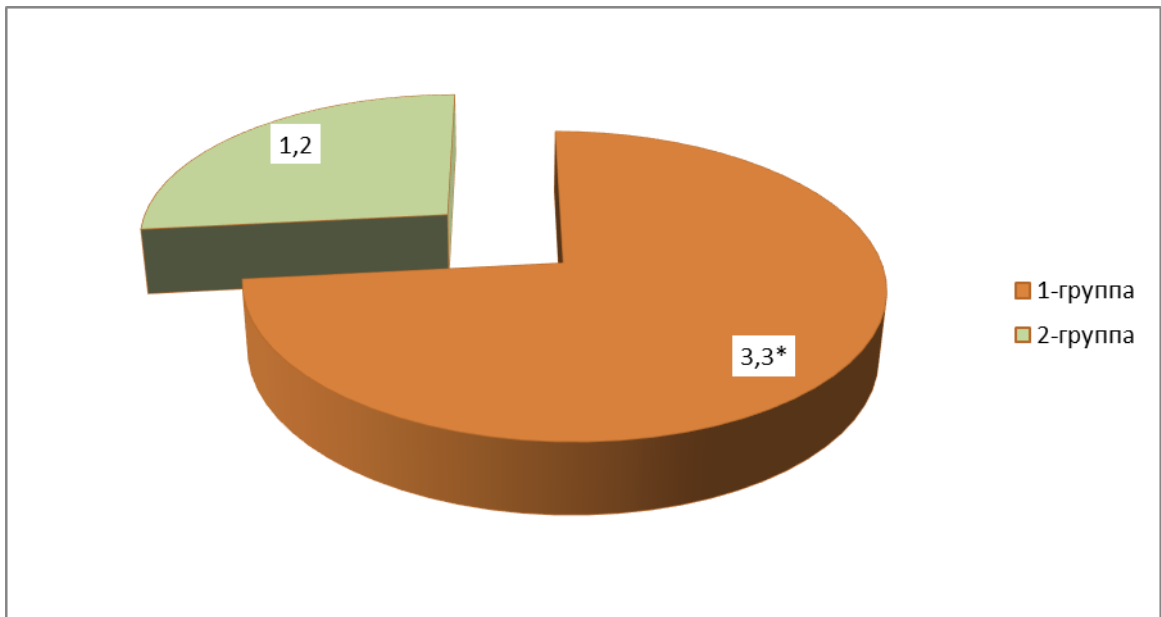
In the analysis of the age of pregnancy at which premature births were registered more frequently, a relative trend to late premature births was observed in 2 groups (n=9 versus n=7) (28% more than 1 group), in 34-35 weeks in 1 group of women, 26 pregnant women had premature births, which was 51% and in 2 groups (n=8) 31% (p<0.05) greater than. In 32-33 weeks of pregnancy, premature births occurred only in 1 group (n=18) of women and not in 2 groups (Figure 4).



Note: *p<0,05; **p<0.01 Confidence in differences between groups

Figure 4. Analysis of premature births according to the age of pregnancy (%)

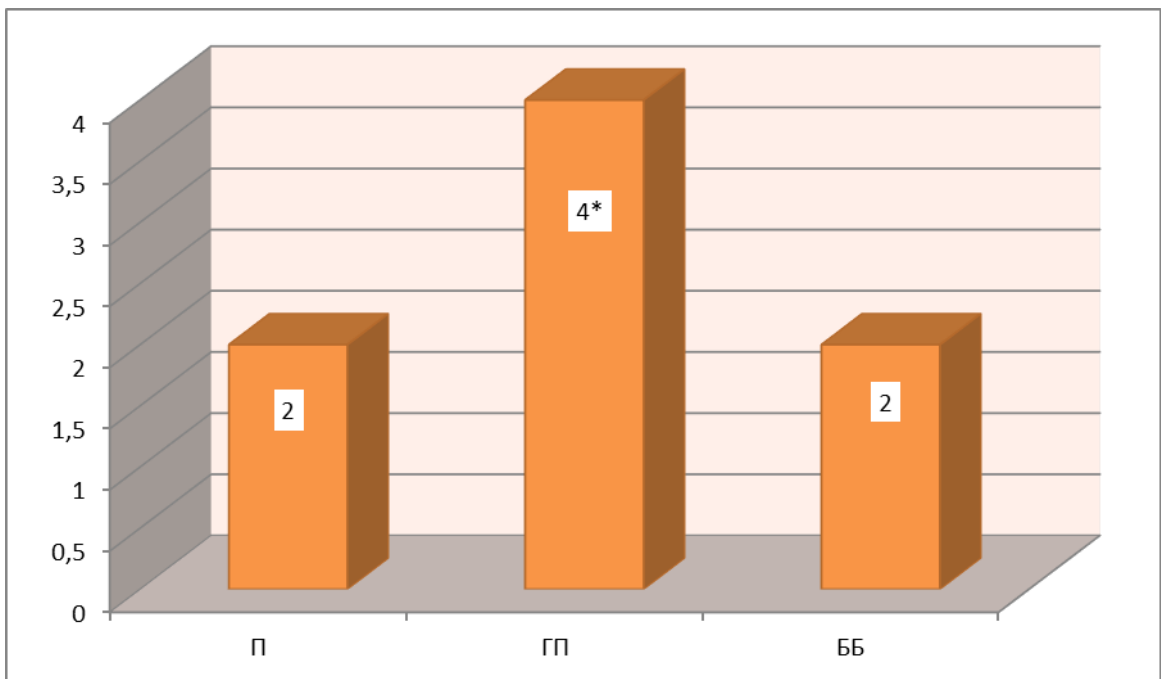
The next step was to assess the clinical status of newborn children. Perinatal mortality of newborns in 1-group was recorded in 3.3% (n=8) cases, in 2 groups in two (1.2%).



Note: * $p < 0.05$ validity of differences between groups

Figure.5. Analysis of perinatal mortality (%)

Perinatal neonatal mortality was analyzed according to clinical options of kidney disease (Fig.6).

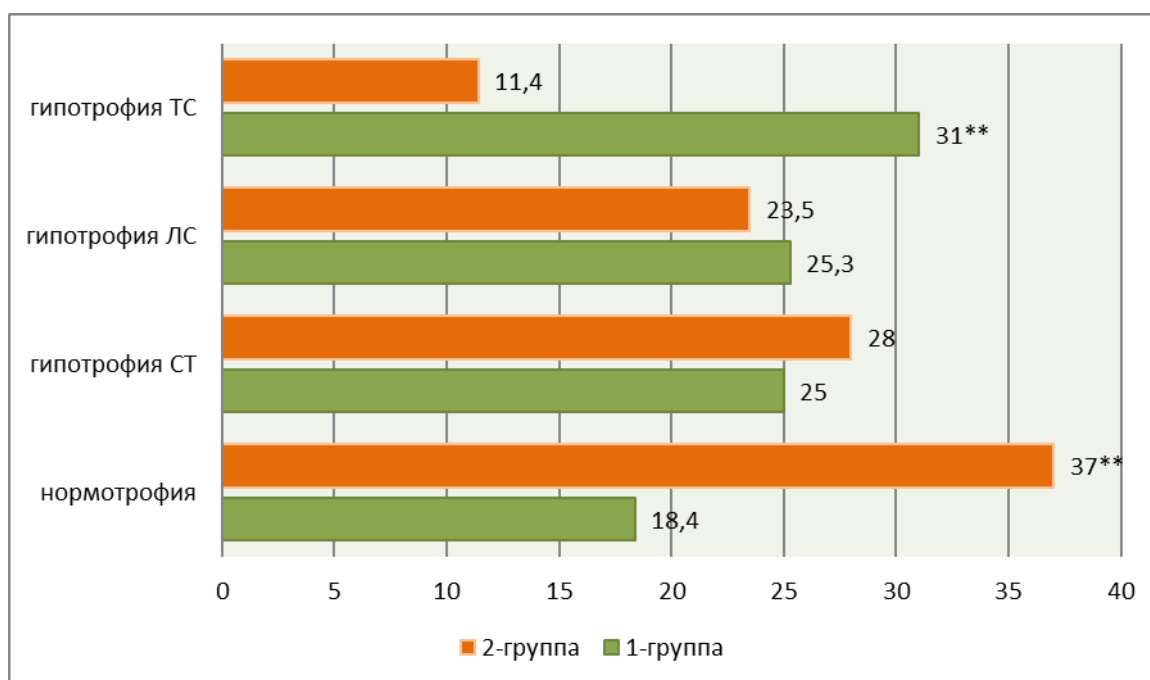


Note: * $p < 0.05$ validity of differences between groups

Figure.6. Analysis of perinatal mortality in different clinical variants of kidney disease (%)

Thus, in 1 -group 233 (96.6%) children were born 8 (3.3%) died, in 2-group 166 (98.8%) were born and died 2 (1.2%).

The clinical analysis of newborns showed that in 1 -group of patients with normotrophia 43 (18.4%) children were born, with hypotrophy of light degree 59 (25.3%) with a moderate hypotrophy of 58 (25%) and a severe hypotrophy of 73 (31%). In 2 groups 37% (n=62), 23.5% (n=39), 28% (n=46), 11.4% (n=19) respectively (Figure 7).



Note: ** $p < 0.01$ Validity of differences between groups

Figure.7. Analysis of perinatal mortality in different clinical variants of kidney disease (%)

When we compared the above studied indicators between groups, they were definitely different. 2-group of patients differed in number of children born with normotrophic (44% more ($p < 0.01$)), in 1-group pregnant compared to 2-group on 26% ($p < 0,01$), more children with severe hypotrophy occurred.

Conclusion:

1. The risk of termination of pregnancy was higher in a group of women with kidney pathology and extragenital diseases than in a group of women with only extragenital diseases.
2. In the second trimester, women with chronic pyelofii reactivity were at risk of aborting gestation compared to 1 -trimester by 50% ($p < 0.05$) increased (from 8 to 16 pregnant women) The data obtained are reliable.
3. Premature births in patients of group 1 were 33% higher than those of group 2.
4. The perinatal mortality of newborns in the first group was higher than in the second group
5. Analysis of perinatal quality in different clinical variants of kidney disease in pregnant women showed that the second group had more children with normotrophic (44% more ($p < 0.01$)), in 1-group pregnant compared to 2-group on 26% ($p < 0,01$), more children with severe hypotrophy occurred.

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