

CHARACTERISTICS OF THE COURSE OF COMPLICATED GESTATIONAL PYELONEPHRITIS IN PREGNANTS

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Abstract. *Pyelonephritis has a negative effect on the course of pregnancy and the state of the fetus, which is manifested in the risk of miscarriage, premature birth, placental insufficiency, fetal hypoxia, intrauterine infection, preeclampsia, and the complex course of the adaptation period.*

In pyelonephritis, the pathogenic factor that affects the chronic stage of inflammation loses its leading role, the processes affecting the change in the rheological properties of blood and microcirculation play an important role, which leads to the development of a chronic condition. comes - the causes of this disease are a risk factor for the mother and the fetus and lead to perinatal losses.

Keywords. *Gestational pyelonephritis, premature birth, nephrostoma, retrospective analysis.*

Relevance. Patients with acute pyelonephritis have significant changes in the hemostasis system, clinical and laboratory indicators. The above changes increase during the transition from the serous stage to the purulent stage of kidney inflammation (I.E. Tareeva et al., 2010).

The study of the interaction between this pathology and pregnancy is important due to the high percentage of obstetric complications, negative perinatal consequences and serious diseases in newborns, which emphasize the medical and socio-economic importance of the problem (V.V. Iremashvili, 2007; L.E. Nicolle, 2008; K. Shea et al., 2008; A. J. Schaeffer et al., 2010). In chronic pyelonephritis, pregnancy is complicated by iron deficiency anemia (35-70%), premature termination of pregnancy at various times (15-20%), chronic placental insufficiency (30-35%), preeclampsia (35-70%). 30-40% causes complications such as chronic uterine hypoxia (30-40%), fetal infection (20-30%) and growth retardation (12-15%). In the background of chronic pyelonephritis, the adaptation ability of newborns is significantly impaired and the risk of early neonatal death increases.

Despite the relatively detailed study of this problem, there are no clear indications in the literature about predicting complications for the mother and fetus and the possibility of correcting changes during the development of the disease in patients with uncomplicated pyelonephritis.

Aim of the study. Study of features of gestational pyelonephritis in pregnant women.

Materials and methods. In order to achieve the set goal and fulfill the tasks, the data of 55 pregnant women and their newborns, who applied to the perinatal center of Samarkand city on the basis of the Department of Obstetrics and Gynecology No 1 of SamSMU, were studied during 2020-2022. The women studied during the study were divided into 2 groups: the main group - 35 pregnant women with gestational pyelonephritis (GP) and the control group - 20 conditionally healthy pregnant women.

Examination of pregnant women includes the following: determination of clinical and anamnestic features of the pregnancy process, laboratory diagnosis of inflammatory pathology of the kidneys, examination of the kidneys and small pelvic organs, as well as the state of the fetus and fetoplacental system using instrumental methods. Renal function: the amount of urea and creatinine in the blood serum (nitrogen excreting activity of the kidneys), glomerular filtration rate (according to endogenous creatinine clearance), concentrating ability (Zimnitsky test), kidneys and urinary tract (Nechiporenko test), and inflammation in the blood evaluated by the presence of the process.

General blood analysis indicators were counted automatically in hematological analyzers such as "CELL-DYN 1700" and "CELL-DYN 400" ABBOTT DIAGNOSTICS (USA), the sedimentation rate of individual erythrocytes was determined in 1 hour using 5% 0.25 sodium nitrate solution.

Biochemical blood tests were performed on the following devices: "EXPRESS PLUS" device developed by "BAYER" (Germany), "LIVID" by "CORMAY" and "AVARENESS TECHNOLOGI INC." by "STAT FAX-1904 PLUS" (USA) devices. General and indirect bilirubin, blood sugar, urea, creatinine was determined. Blood electrolytes were monitored as indicated, with blood electrolytes Medica Corp. It was carried out in the "Easy Lyte" ion-selective analyzer of the (USA) company. The study of the general analysis of urine included microscopic examination of the sediment, which revealed the presence of leukocytes, erythrocytes, bacteria, salt crystals, cylinders, epithelial cells; the presence of protein was carried out with a 3 or 15% solution of sulfalicylic acid.

The analysis of research results showed that during pregnancy (8-12 weeks) pregnant women with OGP do not significantly deteriorate the nitrogen excretion function of the kidneys, which is confirmed by the absence of significant changes compared to healthy kidneys.

The criteria for inclusion of patients in the examined groups were the absence of organic pathology of the urinary system, absence of acute infectious pathology, specific infection and sexually transmitted infection. The cases of patients with inflammatory pathology in the acute phase or chronic extragenital foci during the period of illness were excluded from the study.

Results and discussion. All studied pregnant women were of active reproductive age, that is, from 18 to 38 years old (diagram 1). The average age was 29.2 ± 1.8 .

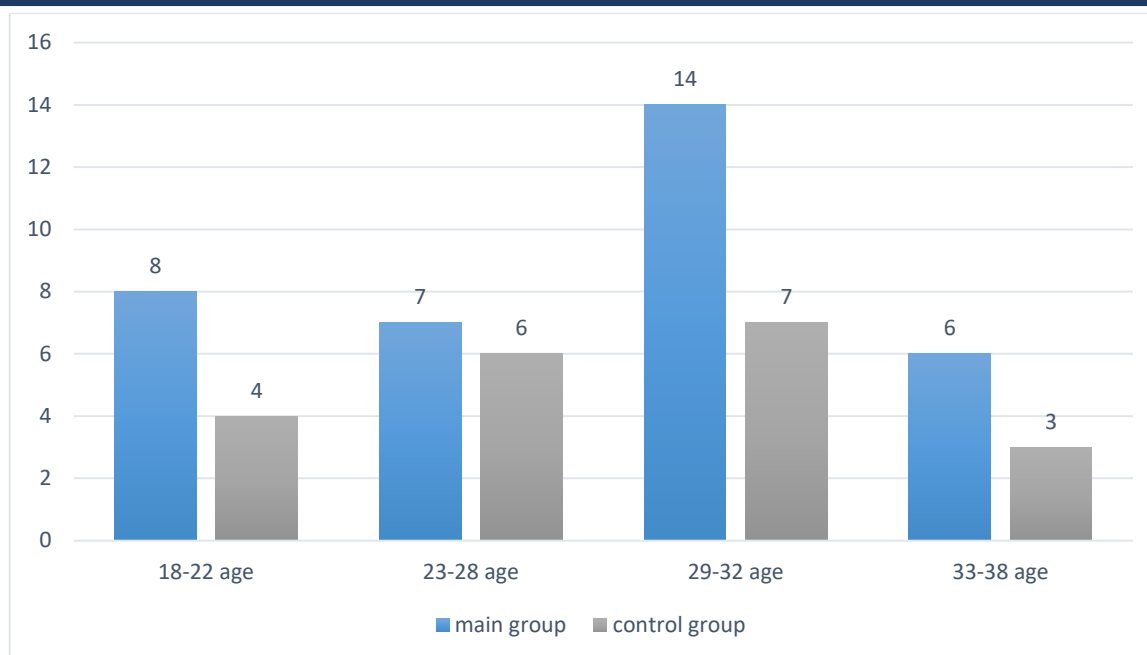


Diagram 1. Distribution of pregnant women by age.

As can be seen from the diagram, most of the women with GP were 29-32 years old (40%). The average age of pregnant women with GP is 28.05 ± 0.5 years. The number of pregnant women of late reproductive age with GP prevailed compared to the control group.

The study of the general analysis of urine included microscopic examination of the sediment, which revealed the presence of leukocytes, erythrocytes, bacteria, salt crystals, cylinders, epithelial cells; the presence of protein was carried out with a 3 or 15% solution of sulfalicylic acid.

Bacteriological research was carried out in selective and selective nutrient media with the determination of the sensitivity of pathogenic microorganisms to antibacterial drugs. Before describing the clinical material of the results of scientific and clinical work, it is appropriate to describe the state of the problem based on statistical data on the perinatal center of Samarkand region in 2020-2022 (diagram 2).

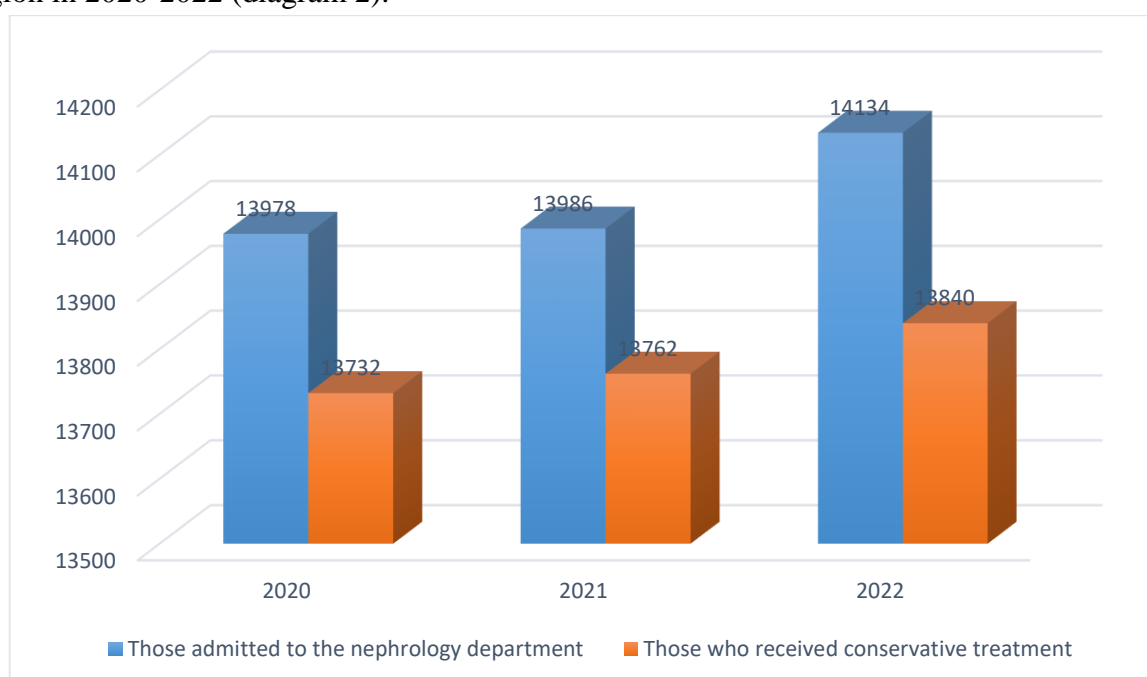


Diagram 2. Patients admitted to the nephrology department of the Samarkand regional perinatal center (2020-2022)

We can see from the diagram that the number of pregnant women admitted to this department is increasing year by year. This indicates an increase in the number of nephrological diseases, including gestational pyelonephritis, acute and chronic pyelonephritis, glomerulonephritis and other kidney and urinary diseases.

With the increase in the number of conservative treatments, the cases of using operative treatment forms are also increasing proportionally (diagram 3).

For example, in 2020, 146 women needed operative treatment, in 2021, this figure increased to 224, and in 2022, it increased by 2 times compared to 2020, and by 34% compared to 2021.

In particular, in 2022, out of 14,134 pregnant women admitted to the department during the year, operative treatment was applied to 294, of which 68 were placed with a nephrostomy.

Clinical studies were conducted on 55 pregnant women, including 35 pregnant women with GP and 20 conditionally healthy pregnant women with physiological pregnancy.

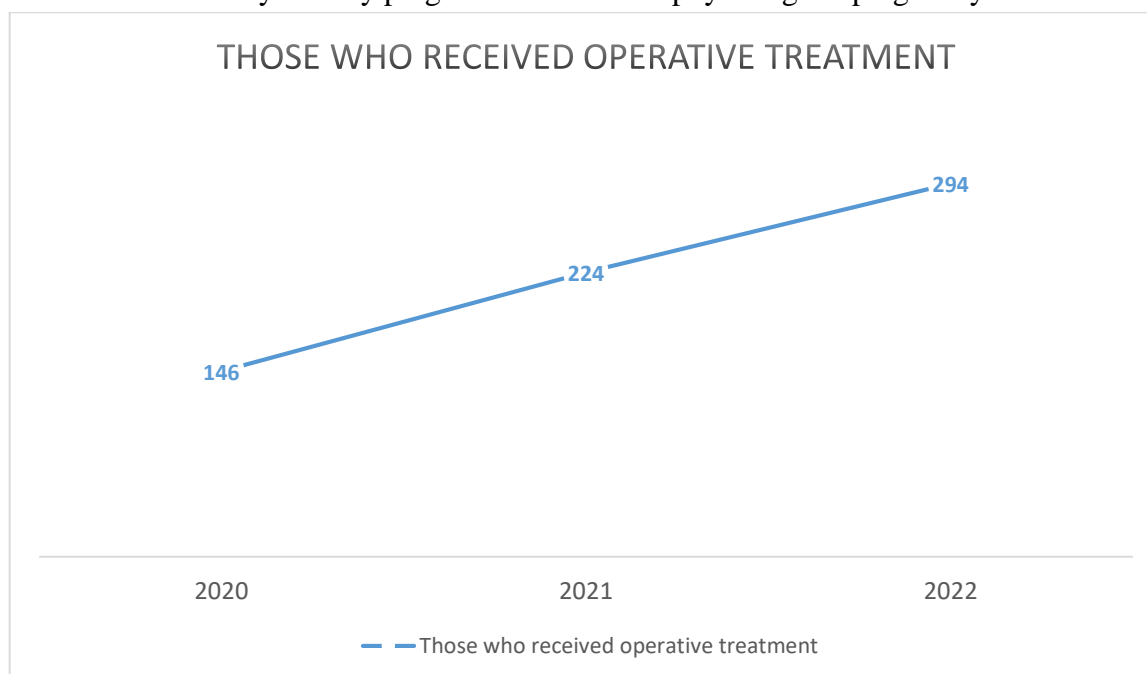


Diagram 3. Frequency of operative treatment

Conclusion. Thus, the analysis of anamnestic data can show us the prevalence and nature of gynecological, obstetrical, perinatal complications, negative consequences of pregnancy as a risk factor for the development of OGP. Among women in the main group, the incidence of infectious diseases, including STDs and urinary tract infections, and the high rate of inflammatory diseases in the anamnesis may be represented by an imbalance of the immune system, and this may be due to other can be the basis for the development of diseases.

In the analysis of complaints, abdominal pain on the affected side was the only subjective symptom that attracted our attention.

In varying degrees of severity, it was present in all patients of the main group. In the main group of patients, relevant symptoms of pyelonephritis of pregnancy were noted, they complained of pain in the lower back, pain or unconsciousness during urination, nocturnal urination, in the main 14 pregnant women (40%) with relevant symptoms of pyelonephritis, the body an increase

in temperature up to 38-38.5 degrees was noted. 5 (14.3%) pregnant women applied with hectic fever.

When examining the history of comorbidities of the women participating in the study, a high rate of inflammatory diseases was noted, including 85.7% of women in the main group had urinary tract infections, while the control group had 10% of this pathology. urethritis and cystitis were recorded in 31.4% cases, vaginitis in 48.6% cases, and endometritis in 34.3% cases.

When the obstetric anamnesis of the studied women was determined, it was found that the rate of term delivery in the main group was 30% lower than in the control group, complications in previous pregnancies were also more frequent. In particular, premature birth was recorded in 40%, early pregnancy loss in 14.3%, non-developing pregnancy in 17.1%, antenatal death in 5.7%, ectopic pregnancy in 2.87%. At the same time, when the structure of gynecological diseases of pregnant women with OGP was analyzed, complications of gynecological anamnesis were found in the main group.

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