



## COMPARATIVE ANALYSIS OF CLINICAL CASES OF EXACERBATION OF CHRONIC PYELONEPHRITIS IN PREGNANT WOMEN

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**Summary:** The article presents a comparative analysis of clinical cases of exacerbation of chronic pyelonephritis in pregnant women at different stages of pregnancy. The phenomena of comorbidity and manifestations of exacerbation of chronic pyelonephritis were studied. As a result of the study, it was determined that exacerbation of CP occurs more often in the second trimester of pregnancy, a contributing factor is not only a mechanical obstruction of the outflow of urine, but also hormonal changes in pregnant women. Summarizing the data, we can say that pregnancy and CP mutually aggravate each other and contribute to the development of a comorbid background.

**Keywords:** chronic pyelonephritis (CP), comorbidity, changes in the myocardium, dysmetabolic phenomena, pregnancy.

**Relevance.** Chronic somatic pathology has 70% of pregnant women, 76% during pregnancy experience exacerbations of diseases (anemia, pyelonephritis, etc.). One of the urgent problems of modern obstetrics is combined somatic pathology, which has a negative impact on the reproductive function of a woman, complicates the course of pregnancy and childbirth, which is manifested by the development of hypertensive disorders of pregnancy, miscarriage, the birth of immature children, an increased frequency of postpartum renal and extrarenal complications, leading to antenatal death of the fetus, complications from the mother.

Chronic pyelonephritis (CP) is a long-term infectious and inflammatory process in the walls of the pyelocaliceal system, in the stroma and parenchyma - the tubulointerstitial apparatus of the kidney. This disease is the most common among urological problems, and among somatic pathologies it ranks third, yielding to diseases of the respiratory and cardiovascular systems [1, 5, 16, 23]. Among the somatic pathologies of pregnant women, it is second only to diseases of the cardiovascular system [2, 4, 8].

This shows the need to study the frequency of occurrence, the structure of cardiovascular pathology in pregnant women with pyelonephritis, management tactics and ways to prevent complications.

**Purpose of work** – to study the course of exacerbation of chronic pyelonephritis in pregnant women at different gestation periods.

**Materials and methods.** The study included 28 women, who were divided into 3 groups depending on the gestational age: the first group included 6 women in the first trimester of pregnancy, the second group included 13 women in the second trimester of pregnancy, the third group included 9 women in the third trimester pregnancy. Patients were observed on an outpatient and inpatient basis in the maternity complex of the SamSMU multidisciplinary clinic for 2023 from March to July.

The age of the patients was from 18 to 37 years, the average age in the main group was  $25.9 \pm 3.7$  years. As research methods, along with general clinical research methods and laboratory research methods (general blood count and general urinalysis, flora smear, biochemical blood test), Zimnitsky and Nechiparenko samples were used to assess the state of urinary function. Of the instrumental methods, ultrasound of the kidneys and a screening examination of the fetus were used; ECG were used to determine the state of the cardiovascular system.

The data were subjected to statistical processing using Microsoft Excel 2010 spreadsheets in a personal computer with the subtraction of mean values and mean deviation.

**Results:** General clinical examination included analysis of complaints, history of chronic pyelonephritis, obstetric and gynecological history, study of the course of this pregnancy, obstetric examination.

During the general clinical examination, it was revealed that the duration of chronic pyelonephritis in women was from one year to 8 years, on average  $4.15 \pm 1.36$  years. When analyzing the complaints of patients, the pains in the lower abdomen (100%) and in the lower back (100%), fatigue and lethargy (78.6%) mainly prevailed.

The general blood test showed the level of hemoglobin  $83.7 \pm 9.24$  g/l, leukocytes  $14.8 \pm 4.15 \cdot 10^9$ , erythrocytes  $2.4 \pm 0.15 \cdot 10^{12}$ , color index  $0.85 \pm 0.03$ , platelets  $248 \pm 54.3 \cdot 10^9$ , ESR  $34.2 \pm 2.6$  mm/hour. A biochemical blood test showed an increase in creatinine and urea in 4 x (30.77%) patients from the second group, in these patients, according to ultrasound, hydronephrosis of 1-2 degrees was detected.

In patients of the first group, only in one case (16.67%) an increase in urea and creatinine was detected, and in the third group only in 2 cases (22.2%).

As can be seen from the analyzes, all patients had anemia and a picture of the inflammatory process, which confirms the exacerbation of the process. But the deterioration in performance was greater in patients of the second group than the first. But it can be said from the results that not only the pregnant uterus, which compresses the kidneys and urinary tract, contributes to the exacerbation. Because the peak of deterioration in indicators was found in the second group, although in the third group these indicators were not so high.

According to ultrasound data, the echocardiography of chronic pyelonephritis was confirmed in all, hydronephrosis was detected in 4 patients of the second group and 1 patient of the third group. In the first group, hydronephrosis was not observed, although there were pyelectasis.

According to the ECG data, all patients had dysmetabolic changes in the myocardium, which were manifested by myocardial hypoxia and left ventricular hypertrophy. In 78.57% of cases there was systolic tachycardia. Elevation of the ST segment occurred in patients of the second (46.1%) and third groups (22.2%).

As a result of the study, it was determined that exacerbation of CP occurs more often in the second trimester of pregnancy, a contributing factor is not only a mechanical obstruction of the outflow of urine, but also hormonal changes in pregnant women.

**Conclusion:** Summarizing the data, we can say that pregnancy and CP mutually aggravate each other and contribute to the development of a comorbid background.

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