

## ACUTE AND CHRONIC PYELONEPHRITIS

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**Annotation:** *Pyelonephritis occurs as a result of disease microbes entering the kidney tissue. Microbes move up the urethra in urethritis or cystitis, or when there are inflamed areas in the body, as well as in angina, tonsillitis, or tooth decay, the infection travels through the blood vessels and enters the kidney.*

**Key words:** *Pyelonephritis, influenza, tonsillitis, thrush, Abdominal pain, strong tremors, fever, profuse sweating.*

**Pyelonephritis** ( Greek : pyelos - cup and nephros - kidney) is inflammation of kidney and kidney cup (pyelitis). **Pyelonephritis** can occur independently or as a result of diseases of the genitourinary system (adenoma of the prostate gland, urinary stone disease, etc.) that make it difficult to pass urine. **Pyelonephritis** also appears as a result of various infectious diseases. In children, it often occurs due to influenza, asthma and other diseases of the respiratory organs. In women during pregnancy, as a result of the enlarging uterus crushing the ureters, it becomes difficult for urine to flow, and **Pyelonephritis** may occur. Often during pregnancy, chronic P. flares up if it is undiagnosed and not detected in time.

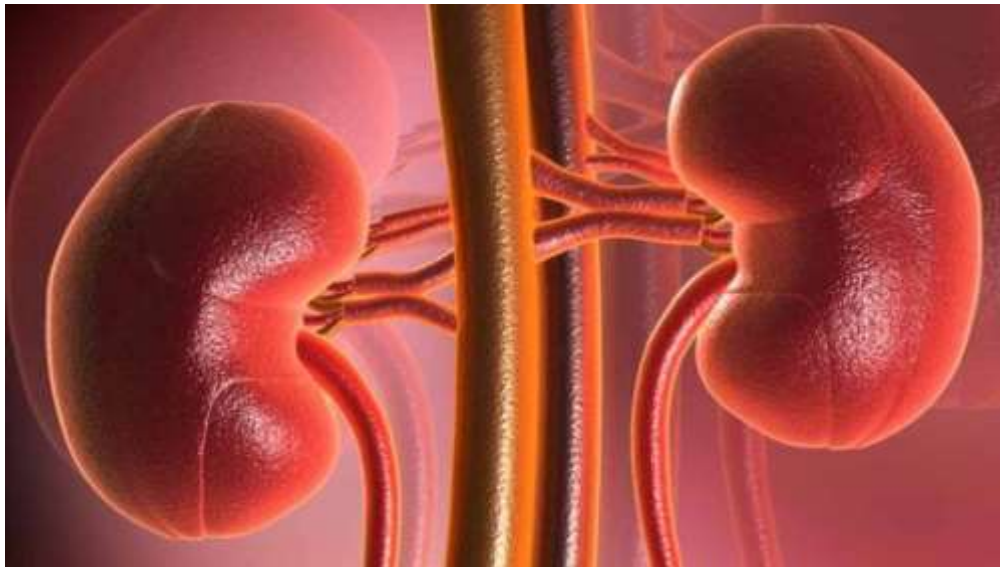
Primary and secondary **Pyelonephritis** are distinguished. In primary **Pyelonephritis**, microbes can affect the kidney through the blood from a purulent source in the body (tonsillitis, thrush, etc.). Secondary **Pyelonephritis** occurs when the urinary tract is inflamed.

There are acute and chronic **Pyelonephritis**. Abdominal pain, strong tremors, fever, profuse sweating, pain on one side of the back or on both sides of the spine, nausea, vomiting, dry mouth, muscle stiffness are typical symptoms of acute **Pyelonephritis**. When the urine is examined, leukocytes and microbes are found in it. Chronic **Pyelonephritis** can go without any symptoms for a long time, it can be known only when examining the urine. In chronic **Pyelonephritis** there is a slight pain in the back, frequent headaches. Sometimes there is a slight fever. Chronic **Pyelonephritis** can be aggravated from time to time. Symptoms characteristic of acute **Pyelonephritis** appear. If chronic **Pyelonephritis** is not treated in time, the kidney tissue is gradually destroyed, the function of the kidney to secrete urine changes (Uremia). When suffering from acute **Pyelonephritis**, the patient is usually treated only in the hospital. If the regimen prescribed by the doctor is not followed, the disease becomes chronic. When suffering from chronic **Pyelonephritis**, patients

should always be under the supervision of a doctor and fully follow the regime and treatment measures prescribed by him, including diet, smoking, spicy, canned products, spicy things, alcohol are prohibited. Table salt should be consumed less.

In order to prevent the disease, it is important to treat various infectious diseases in time, to eliminate the foci of infection in the body, and to train the body. Pregnant women should periodically go to the women's consultation and check their urine. <sup>[1]</sup>

**Pyelonephritis** is an infectious kidney disease caused by various bacteria. Patients with acute and chronic pyelonephritis make up almost 2/3 of urological patients. Pyelonephritis can be acute or chronic, damage one or both kidneys. In chronic pyelonephritis, the course of the disease without symptoms or with subtle signs often causes patients to be indifferent to this disease, they cannot adequately assess the severity of the disease and do not take treatment seriously. Diagnosis and treatment of pyelonephritis is carried out by a nephrologist. If pyelonephritis is not treated in time, it can lead to serious complications such as kidney failure, carbuncle or kidney abscess, sepsis and bacterial shock.



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- **2 Symptoms of pyelonephritis**
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#### CAUSES OF PYELONEPHRITIS

This disease can appear at any age. Pyelonephritis develops in the following periods:

- in children under 7 years of age (the probability of pyelonephritis increases due to the characteristics of the anatomical structure of children);
- in young women between 18-30 years of age (pyelonephritis is associated with the onset of sexual activity, pregnancy and childbirth);
- In elderly men (in case of urinary tract obstruction due to prostate adenoma).

Any organic or functional reasons that prevent the normal flow of urine increase the likelihood of developing the disease. Pyelonephritis often occurs in patients with urolithiasis.

Negative factors that encourage the development of pyelonephritis include diabetes, immune disorders, chronic inflammatory diseases and frequent colds. In some cases (usually in women), pyelonephritis develops after acute cystitis.

The asymptomatic course of the disease is the reason for the late diagnosis of chronic pyelonephritis. Patients start treatment after kidney failure. The disease often occurs in patients with urolithiasis, so such patients need special therapy even when there are no symptoms of pyelonephritis.

#### SYMPTOMS OF PYELONEPHRITIS

Acute pyelonephritis is characterized by a sudden onset of the disease and an increase in body temperature up to 39-40 °C. Hyperthermia is accompanied by profuse sweating, loss of appetite, severe weakness, headache, sometimes nausea and vomiting. At the same time as the temperature rises, persistent pain (usually one-sided) appears in the lumbar region. Physical examination reveals pain when pressing on the lumbar region (positive Pasternatsky sign). The uncomplicated form of acute pyelonephritis does not cause urinary disorders. Urine is cloudy or reddish in color. Laboratory urine analysis reveals bacteriuria, slight proteinuria and microhematuria. General blood analysis shows increased leukocytosis and ECHT. In about 30% of cases, as a result of the biochemical analysis of blood, an increase in nitrogenous slags is determined.

Chronic pyelonephritis is often a consequence of untreated acute form of the disease. Also, without acute pyelonephritis in the patient's anamnesis, primary chronic pyelonephritis may suddenly develop. Sometimes, chronic pyelonephritis is detected accidentally as a result of urinalysis. Patients with chronic pyelonephritis often complain of weakness, loss of appetite, headache and frequent urination. Some patients are bothered by a dull ache around the lower back that gets worse in cold, damp weather. With the development of bilateral chronic pyelonephritis, kidney function is impaired, which leads to an increase in the specific gravity of urine, hypertension and kidney failure will bring. Symptoms of exacerbation of chronic pyelonephritis are consistent with the clinical picture of the acute form of the disease.

#### COMPLICATIONS OF PYELONEPHRITIS

Bilateral acute pyelonephritis can lead to acute renal failure. Examples of the most serious complications are sepsis and bacterial shock.

In some cases, acute pyelonephritis can lead to a complication such as paranephritis. Also, apostenomatous pyelonephritis (the formation of several small purulent bubbles in the skin and surface of the kidney), renal carbuncle (often caused by the fusion of small ulcers, characterized by the presence of purulent-inflammatory, necrotic and ischemic processes), renal abscess (destruction of kidney parenchyma)

and necrosis of kidney cups can develop. Kidney surgery is required when purulent-destructive changes are observed in the kidney.

If the disease is not treated, the terminal stage of purulent-destructive pyelonephritis begins. In this, pyonephrosis develops, in which the kidney undergoes complete purulent destruction and becomes a cavity composed of urine, pus, and the remains of tissue decay.

#### DIAGNOSIS OF PYELONEPHRITIS

Diagnosing "acute pyelonephritis" is usually not difficult for a nephrologist due to the presence of clear clinical signs.

Often there are chronic diseases or recent acute purulent processes in the anamnesis. The clinical picture of pyelonephritis consists of fever and back pain (often unilateral), painful urination and changes in urine. Urine is cloudy or reddish in color, has a specific foul smell.

Laboratory confirmation of the diagnosis is the detection of bacteria and a small amount of protein in the urine. To identify the causative agent, a bacterial culture of the urine sample is carried out. The presence of acute inflammation is indicated by the increase of leukocytosis and ECHT in the general blood analysis. With the help of special test kits, the microflora that caused the inflammation is determined.

When a large-scale urography is performed, it is felt that one kidney is enlarged. Excretory urography shows a sharp limitation of kidney mobility when an orthoprobe is passed. In apostematoses pyelonephritis, there is a decrease in secretory function on the affected side (the shadow of the urinary tract is delayed or not observed). In case of carbuncle or abscess, the excretory urogram reveals bulges in the contour of the kidney, compression and deformations in the cup and calyx.

Diagnosis of systemic changes in pyelonephritis is carried out with the help of ultrasound examination of the kidneys. The concentration ability of the kidneys is evaluated using the Zimnitsky test. Kidney CT is performed to rule out kidney stone diseases and anatomical anomalies.

#### TREATMENT OF PYELONEPHRITIS

Uncomplicated acute pyelonephritis is treated conservatively in the urology department. Antibacterial therapy is carried out. Medicines are selected taking into account the sensitivity of bacteria in the urine. In order to quickly eliminate inflammatory processes and prevent pyelonephritis from turning into a purulent-destructive form, treatment begins with the most effective drug.

Detoxification therapy, strengthening of immunity is carried out. When a fever is observed, a diet with a low protein content is prescribed, and when the temperature returns to normal, the patient returns to a full food diet with a lot of fluid in it. In the first stage of treatment of acute pyelonephritis of the second degree, obstacles that prevent normal urine output should be eliminated. In cases of impaired urination, the appointment of antibacterial drugs does not give the desired effect and can lead to the development of serious complications.

Treatment of chronic pyelonephritis is based on the same principles as treatment of the acute form of the disease, but it requires more time and effort. Treatment of chronic pyelonephritis includes the following therapeutic methods:

- Eliminating the causes that prevent urine output or lead to renal blood circulation disorders;
- Antibacterial therapy (treatment is determined taking into account the sensitivity of microorganisms);
- Normalization of general immunity.

In the presence of obstructions, it is necessary to restore the normal passage of urine. Restoration of urinary flow is increased by surgery (nephropexy in nephroptosis, removal of kidney and urinary tract stones, removal of prostate adenoma, etc.). In most cases, elimination of obstructions blocking the urinary tract allows to achieve long-term and reliable remission.

In the treatment of chronic pyelonephritis, antibacterial drugs are prescribed taking into account the antibioticogram. Antibacterial drugs with a wide spectrum of action are used until the sensitivity of microorganisms is determined.

Patients with chronic pyelonephritis require long-term systemic treatment lasting at least one year. Treatment begins with antibiotics, which are continued for 6-8 weeks. This method makes it possible to eliminate purulent processes in the kidney without complications and prevent the formation of scar tissue. In case of impaired renal function, constant monitoring of the pharmacokinetics of nephrotoxic antibacterial drugs is required. If necessary, immunostimulators and immunomodulators are used to strengthen the immune system. After achieving remission, the patient is given courses of antibacterial therapy with interruptions. During remission, patients with chronic pyelonephritis are recommended to be treated in sanatoriums. The mandatory duration of therapy should not be forgotten. Antibacterial treatment started in the hospital should be continued in the outpatient setting. Phytotherapy is used as an additional treatment method.

#### REFERENCES:

1. *Ignatiev VK* Rheumatoid arthritis. - Petrozavodsk, 1997 (co-author)
2. *Clinical rheumatology (rukovodstvo dlya vrachey)*, 2-e izd., pererab. i dop, SPb.: OOO "Izdatelstvo FOLIANT", 2005. ISBN 5-93929-127-9.
3. Childhood diseases. Baranov AA // 2002.