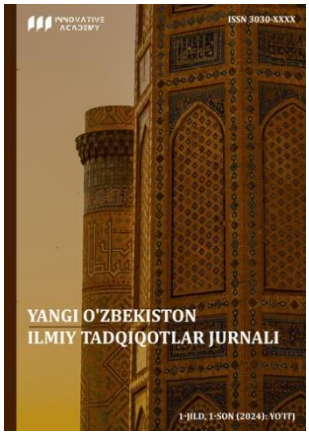

MODERN ASPECTS OF TREATMENT OF PATIENTS WITH UROLITHIASIS

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ABSTRACT

Among the various forms of manifestation of ICD, the most common are kidney stones, which account for about 50% of clinical cases. Elimination of the cause of urinary stones has not been resolved, while the provision that the removal of the stone should be a necessary part of comprehensive treatment remains mandatory. Which, in turn, contributes to stone formation. Treatment of nephrolithiasis has two main directions. One of them involves various methods of removing urinary stones – these are symptomatic treatments for ICD. The second direction includes methods of treating urolithiasis itself, taking into account its diverse etiological factors and complex pathogenesis. Conservative treatment is possible in the presence of risk factors for stone formation with a preventive purpose in crystalluria and stone excretion. Surgical treatment of ICD is a very difficult task. The high traumatism of traditional surgical interventions was a prerequisite for the search for new methods of removing stones. Until the end of the 70s of the XX century, the main method of treating patients with urolithiasis was open surgery. Minimally invasive operations in cases of intraoperative complications end with traditional surgical interventions. A wide variety of new methods for the treatment of nephrolithiasis: external shock wave lithotripsy (ESWL), contact lithotripsy (CLT), percutaneous nephrolitholapaxis (PNL) pushed into the background open methods of treatment of ICD.

Relevance. Kidney stones are small "pebbles" of salt and mineral in the urine. The most common symptom is severe pain. Most stones pass on their own, but medical procedures are used to remove some kidney stones. Kidney stones are hard pebble-like objects that can form inside your kidneys. They're made of minerals and salts. You might hear your doctor call them renal calculi, nephrolithiasis, or urolithiasis. Kidney stones are small usually between the size of a kernel of corn and a grain of salt. They can form when your body has too much of certain minerals, and at the same time doesn't have enough liquid. The stones can be brown or yellow, and smooth or rough. Risk factors for kidney stones include whites are more likely to develop kidney stones than African Americans or other races, men are more likely than women to have stones, but the number of women with stones has gone up in the past ten years and this may be connected to the rise in obesity in women compared to men, as obesity is a known risk factor for kidney stones. Doctors break down kidney stones into types. Knowing which kind, you have could affect the treatment you get. They include: Calcium stones: These are the most common ones. Even just eating some foods very high in oxalates, such as rhubarb, or taking unusually high levels of vitamin D, can boost your chances of getting this type. You could get this kind if you typically don't drink enough water or if you sweat a lot and don't replace the fluids you lose. Cystine stones: This is the least common type. This is the least common type and due to a genetic mutation. In this situation your kidneys have trouble reabsorbing a compound called cystine, which ends up in the urine at higher levels and causes stones to form. Struvite stones: Infections, especially in the urinary tract, can cause this kind of stone. Uric acid stones: Eating large amounts of animal proteins can lead to uric acid buildup in your urine. That can eventually form a stone either with or without calcium. Risk factors include gout, diabetes, and chronic diarrhea.

The aim of the research. To assess the clinical efficacy of surgical treatment of kidney stones.

Materials and methods. The results of treatment of 100 patients with kidney stones were analyzed. When assessing the effectiveness, the following were taken into account: the duration and frequency of the intervention, the degree of elimination of fragments, the duration of hospital stays, the need for repeated courses of inpatient treatment.
The age ranged from 21 to 75 years, with a mean age of 48.2±3.5 years (M±t). For representativeness, 50% of women and 50% of men were included in the study.
Unilateral nephrolithiasis was detected in 45 patients, bilateral nephrolithiasis in 50 patients, and single kidney stones in 5 patients.
To systematize the clinical material, all patients, depending on the method of surgical intervention, were divided into 4 groups: 1) traditional open surgical treatment: pyelolithotomy or nephrolithotomy; 2) PNL, 3) ESWL of kidney stones, 4) combined minimally invasive interventions in complex clinical forms of urolithiasis. Statistical processing of the research results was carried out by parametric methods. Methods of descriptive statistics included estimating the arithmetic mean (M) and the mean error of the mean value (t) for features with a continuous distribution; as well as the frequency of occurrence of features with discrete values. To assess the intergroup differences in the values of traits with a continuous distribution, the student's criterion was used, the critical level of reliability of the null statistical hypothesis (about the absence of significant differences or factor influences) was assumed to be equal to 0.05.
Results of the research. The main criteria for choosing a method of surgical treatment of kidney stones are: the general condition of patients, the severity of the inflammatory process of the upper urinary tract, size, density, duration of standing of the stone and the localization of the stone.

Complaints of acute pain or aching pain on the side of stone localization during hospitalization were presented by 224 (83.9%) patients, 43 (16.1%) hospitalized patients did not have pain syndrome. Gross hematuria after physical exertion occurred in 41 patients (15.4%).

On admission to the hospital, renal ultrasound was performed in 50 patients with kidney stones. Dilation of the calyxlochunocial system due to obstruction of the pyelourethral segment (PUS) by concrement was found in 45 of the examined.

In all patients, before and after the intervention, the activity of pyelonephritis, the state of urodynamics of the upper urinary tract, the total function of the kidneys and the functional state of the affected kidney were assessed. The terms of wound drainage and healing of urinary fistulas, the duration of hospital stay were compared. The presence of concomitant diseases was also an important consideration in assessing surgical risk and choosing a treatment method. 43 people (43.8%) suffered from concomitant somatic diseases. The size of kidney stones varied from 0.8 to 5.2 cm, while in 48 (48.7%) patients they were up to 1.5 cm, in 75 (32.1%) - from 1.6 to 3.0 cm, and in 45 (19.2%) - from 3.1 to 5.2 cm. The density of stones in units of Ni (Hounes Field) was from 237 to 1290 units of Ni (647.9 + 63.4). The main complications of traditional treatment were bleeding, exacerbation of pyelonephritis and chronic renal failure. In the postoperative period, bleeding was recorded in 2 (4.9%) patients, they were stopped by conservative measures.

Acute pyelonephritis, which occurs due to impaired passage of urine, which we observed in 4 (9.8%) patients, deserves special attention after open surgical treatment. Exacerbation of chronic calculous pyelonephritis is due to either inadequate drainage of the kidney, or premature removal of nephrostomy drainage, which we observed in 3 operated patients. Exacerbation of chronic renal failure, accompanied by a short-term increase in creatinine and urea in the immediate postoperative period after the first stage of treatment, was observed in 4 patients. The duration of the postoperative period of minimally invasive interventions is significantly shorter than after open interventions. Endoscopic operations are close to the traditional ones, but they are favorably distinguished by the absence of blood loss, a favorable course of the postoperative period and minimal rehabilitation periods. There is practically no need for repeated manipulations.

Conclusion. Thus, as a result of our study, it was revealed: the use of minimally invasive methods in operations for kidney stones reduces the trauma of surgical intervention and contributes to reducing the duration of disability by an average of 20 days; open surgical interventions should be used only in case of planned nephrectomy and calculous purulent-destructive forms of pyelonephritis. Percutaneous operations should be used in the presence of contraindications to ESWL and in the complex clinical situations - in the treatment of large and multiple kidney stones; combined minimally invasive nephrolithotomy is indicated for large (more than 1.5-2.0 cm) and dense (1000 HU and more) stones of the intrarenal pelvis and pelvic ureteral segment, presumed failure of contact lithotripsy due to the high risk of intraoperative complications.

The use of minimally invasive techniques makes it possible to reduce the time of postoperative rehabilitation, which makes it economically profitable to further introduce them into urological practice.

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