

MODERN ASPECTS OF TREATMENT OF PATIENTS WITH

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Annotation. This thesis explores recent advancements in diagnosing and treating urolithiasis, known as kidney stones. The core focus is on Improved diagnostic techniques: This includes exploring advancements like dual-energy CT scanning and novel urine tests for risk assessment. Emerging treatment options: Minimally invasive surgical techniques, refinements in shock wave lithotripsy, and the development of new medications to prevent and pass stones are covered. Dietary therapy: The role of nutritional modifications in urolithiasis management is discussed. The thesis emphasizes that the optimal treatment path depends on individual factors like stone characteristics and overall health. Consultation with a doctor is crucial to determine the most suitable approach.

Keywords. Kidney stones, Urolithiasis, Uroliths, Urolithiasis, Calcium stone, Oxalate stone, Urate stone, Apatite stone, Lumbar pain, Weeping.

Relevance. Urolithiasis is a medical condition characterized by the formation of stones in the urinary tract, usually in the kidneys or bladder. These stones, known as urinary calculi or kidney stones, are made up of crystallized minerals and can cause severe pain and discomfort as they pass through the urinary system. A variety of factors, including dehydration, high levels of certain minerals in the urine, and genetic predisposition can cause urolithiasis. Treatment for urolithiasis may involve pain management, hydration, and, in some cases, surgical removal of the stones. Prevention strategies may include adequate hydration, dietary changes, and medications to control mineral levels in the urine.

Here are some new methods of diagnosis and treatment of urolithiasis:

Diagnosis

- Dual-energy CT scanning: this type of CT scan can provide more information about the composition of kidney stones, which can help doctors determine the best course of treatment.
- Urine tests: new urine tests are being developed that can help identify patients who are at risk for developing kidney stones.
- Genetic testing: genetic testing may one day be used to identify patients who are predisposed to developing kidney stones.

Treatment methods:

- Minimally invasive surgical techniques: minimally invasive surgical techniques, such as ureteroscopy and percutaneous nephrolithotomy, are becoming increasingly common for treating kidney stones. These procedures allow doctors to remove stones with smaller incisions, which can lead to a shorter recovery time.
- Shock wave lithotripsy (SWL): SWL is a non-invasive procedure that uses sound waves to break up kidney stones. This is a well-established technique, but researchers continue to refine it to improve efficiency and reduce side effects.
- Medications: New medications are being developed to help prevent kidney stones from forming and to promote the passage of small stones.

- **Dietary therapy:** Dietary therapy can be an effective way to prevent kidney stones from forming. A dietitian can help you develop a plan that is right for you.

These are just a few of the new methods that are being used to diagnose and treat urolithiasis. As research continues, even more effective treatments are likely to be developed.

It is important to note that not all of these new methods are appropriate for all patients. The best course of treatment for you will depend on the size, location, and composition of your kidney stones, as well as your overall health. Be sure to talk to your doctor about all of your treatment options.

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 removing 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, considering 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 an arduous 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 of treating nephrolithiasis: external shock wave lithotripsy (ESWL), contact lithotripsy (CLT), percutaneous nephrolitho-lapaxia (PNL) pushed into the background open methods of treatment of ICD.

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

Materials and methods. The results of 50 kidney stone surgeries performed in patients treated from 2007 to 2011 were analyzed. The age of the patients ranged from 21 to 75 years; the mean age was 48 years. For representativeness, 50% of women and 50% of men were included in the study.

All patients, depending on the method of surgical intervention, were divided into 4 groups: 1) traditional open surgical treatment: pyelolithotomy or nephrolithotomy (63 patients); 2) percutaneous nephrotic extraction – 83 patients; 3) external shock wave lithotripsy (ESWL) (104 patients); 4) combined minimally invasive interventions – 17 patients.

Results and discussion. It has been established that the duration of the postoperative period of minimally invasive interventions is significantly shorter than after open ones. The time of retroperitoneal drainage in open operations was 7 days, and in minilumbotomy – 6 days. In the course of treatment, a decrease in the content of leukocytes of blood was observed in patients after minimally invasive operations, and in patients after open nephrolithotomy on the 3rd day, an increase in this parameter was noted. Kidney stones ranged from 25 to 65 minutes and averaged 38 minutes. The volume of blood loss was 150 ml after percutaneous interventions and open operations are characterized by a much larger volume of blood loss -

211 ml. Combined nephrolithotomy is indicated for large (more than 1.5-2.0 cm) and dense (1000 HU and more) stones of the intrarenal pelvis.

Conclusion. As a result of our study, it was revealed that the use of minimally invasive methods in operations for kidney stones helps to reduce the period of disability by an average of 20 days. Percutaneous operations should be used in the presence of contraindications to ESWL. The use of the proposed techniques can reduce the time of postoperative rehabilitation

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