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Transurethral Contact Ureterolithotripsy in the Treatment of Ureteral Stones

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Abstract: We studied transurethral contact ureterolithotripsy in 36 patients with large stones in the upper third of the ureter, from 2023 to 2024, in the Bukhara regional hospital. Transurethral contact ureterolithotripsy was performed in 36 patients (20 women and 16 men) with ureteral stones. It is an effective method for treating high-density ureteral stones located in the middle or lower third of the ureter. However, the invasiveness and traumatic nature of this method limit its use.

Keywords: ureterolithotripsy, ureter, urolithiasis, treatment.

INTRODUCTION. The high prevalence of urolithiasis and, in particular, ureteral stones determines the relevance of the search for and ways to develop new minimally invasive methods of endoscopic treatment. Remote and percutaneous contact lithotripsy has become the generally accepted global standard in the treatment of this category of patients and has led to a sharp reduction in the number of open surgical interventions for stones[1, 2,4]. However, the presence of a number of complications, such as ureteral injury, bleeding, perforation of adjacent organs during execution and other complications, dictates the need to use less invasive retrograde (transurethral) methods of ureterolithotripsy and stone removal in a certain category of patients. The emergence in recent years of new technical capabilities associated with the introduction into practice of miniureteroscopes, flexible endoscopes for creating permanent access to the upper urinary tract during surgery, the development and improvement of laser lithotripsy methods, the development of atraumatic lithoextractors and other working instruments make it possible to change approaches to the treatment of patients suffering from nephrolithiasis, towards reducing the invasiveness of the intervention [5,6,7].

At the same time, there are a significant number of issues that have not been sufficiently addressed to date - the clinical effectiveness of transurethral ureterolithotripsy has been practically not studied, and indications and contraindications for its use have not been developed. Issues related to the technique of performing the operation and the management of patients in the postoperative period are also not covered. Specific complications of the method are unknown, methods for their prevention and treatment have not been developed. These, in particular, include: the necessary set of diagnostic measures, determination of indications and contraindications for transurethral pyelocalicolithotripsy [8,9,10].

This determines the relevance of conducting a more in-depth and comprehensive study of the use of transurethral contact pyelocalithotripsy and lithoextraction in the treatment of patients with kidney stones. Currently, the issues of the combined use of transurethral and extracorporeal lithotripsy and transurethral and percutaneous contact lithotripsy have not been fully studied. In the domestic literature, coverage of these issues is rare [8,10,14]. Nephrolithiasis is one of the most common urological diseases, since patients with urinary stones make up 2–3% of the population of our planet [5,12], and about 50% of patients with urolithiasis have ureteral stones. The development of minimally invasive methods of surgical treatment in patients with nephrolithiasis, although it reduces the risk of iatrogenic damage, is often accompanied by transient microcirculatory disorders, tubulointerstitial damage, the development of fibrosis, and also contributes to the progression of kidney diseases [14,15]. The transureteral endoscopic method for the treatment of ureteral stones - contact ureterolithotripsy (CULT) has become widespread in leading clinics and urological centers in our country and abroad [7,8,9], however, the overall percentage of complications with this method ranges from 5 to 9%, and severe complications – up to 1% [6,7]. Despite the improvement of the CULT

technique and the reduction in the number of complications caused by the intervention technique, the complicated course of the early postoperative period, especially with severe ureteral occlusion, increases the need for ureteral catheterization and the prescription of analgesics, and also increases the length of stay of patients in hospitals.

A significant contribution to the unfavorable outcome of the treatment of obstructive uropathy is made by the pathology of the excretory function of the nephron, leading to dysfunction and damage to the kidney structure, depending on the duration of ureteral occlusion, the method of its elimination, and the time of restoration of urine passage. This is reflected in the indicators of water-electrolyte metabolism and hormonal support of homeostatic renal function. In this regard, early detection of structural and metabolic changes in the kidneys that arise as a result of the development of complications of urolithiasis , as well as changes caused by various approaches to the treatment of urolithiasis, is an urgent task.

Purpose of the study. To study the effectiveness of transurethral contact ureterolithotripsy.

Materials and methods. The results of treatment of 36 patients with large stones in the upper third of the ureter were studied in the period from 2023 to 2024. was performed at the Bukhara regional hospital. Transurethral contact ureterolithotripsy was performed in 36 patients (20 women and 16 men) with ureteral stones.

The results obtained and their discussion. Of 36 patients with ureteral stones, in 33 (97.7%) patients, contact ureterolithotripsy managed to destroy the stone to fragments measuring 1-3 mm. In 2 (2.2%) patients, during transurethral contact ureterolithotripsy, stones migrated to the renal collecting system, the latter was drained with a stent for further remote shock wave lithotripsy. In 1 (1.1%) patient, during transurethral contact ureterolithotripsy with a positive effect, the ureteral wall was perforated.

CONCLUSION. Transurethral contact ureterolithotripsy is an effective treatment for high-density ureteral stones located in the middle or lower third of the ureter. However, the invasiveness and traumatic nature of this method limit its use.

REFERENCES

1. Alyaev Yu.G. Urolithiasis disease. Current issues of diagnosis and treatment / Alyaev Yu.G., Rapoport L.M., Rudenko V.I., Grigoriev N.A. // Medical class. - 2004. (4).
2. Martov A.G., Teodorovich O.V., Gallyamov E.A. and others. Endoscopic ureterolithotomy for large stones in the upper third of the ureter//Urology.2011.No.5.P.50-55.
3. Beshliev D.A. Frequency of stone formation relapses after DLT / Beshliev D.A., Krendel B.M., Konstantinova O.V., Tkachenko Yu.N. // Materials of the Plenum of the Board of the Russian Society of Urologists. Sochi, 2003. - pp. 74-75.
4. Dzeranov N.K., Remote lithotripsy in the treatment of coral nephrolithiasis in children with the lithotripter “Urat-M” / Dzeranov N.K., Pugachev A.G., Lopatkin N.A. and others // Urology and nephrology. - 1992. (1-3).-P.28-32.
5. Dzeranov N.K. Conditions for performing remote lithotripsy with different physico-chemical composition of urinary stones / Dzeranov N.K., Grishkova N.V., Boyko T.F., Golovanov S.A. // Urology and nephrology. 1994. (6). - P. 10-13.
6. Komyakov B:K. Endoscopic laser ureterolithotripsy. / Komyakov^B.K. // Urology and nephrology. 1993. (1). pp. 4-7.
7. Lopatkin N.A. External shock wave lithotripsy 5 years later, / Lopatkin N.A., Dzeranov N.K., Golovanov S.A. // Urology and nephrology. 1994. (1). - P. 8-11.
8. Lopatkin N.A. External shock wave lithotripsy 10 years later. / Lopatkin N.A., Dzeranov N.K. // Materials of the plenum of the Board of the All-Russian Society of Urologists: Abstracts of reports. -Ekaterinburg, 1996. P. 313-323

9. Lopatkin N.A. 15 years of experience in the use of DLT in the treatment of urolithiasis / Lopatkin N.A., Dzeranov N.K. // Materials of the Plenum of the Board of the Russian Society of Urologists. Sochi, 2003. - P. 5-25.
10. Lopatkin N.A. Endoscopic ureterolithotripsy using a holmium laser. / Lopatkin N.A., Mazo E.B., Chepurov A.K. and etc:. Urology and nephrology. — 1997. (3). — P. 25-29.
11. Martov A.G. Percutaneous surgery for coral nephrolithiasis TEXT. / Martov A.G., Krendel B.M., Zenkov S.S., Moskalenko S.A. // Materials of the IV All-Union Congress of Urologists. Moscow, 1990. - P. 5961.
12. Martov A.G. Transurethral treatment of long-standing “stone tracks” after extracorporeal lithotripsy. / Martov A.G., Kamalov A.A., Gushchin B.L. // Materials. Plenum of the All-Russian Society of Urologists: Abstracts of reports. Perm, 1994. - pp. 220-221
13. 0lefir Yu.V. Minimally invasive methods for the treatment of complex forms of nephrolithiasis / Olefir Yu.V. // Dis. Dr. honey. sciences. -Moscow, 2008.
14. Teodorovich O.V. Bilateral simultaneous percutaneous puncture nephrolithotomy TEXT. / Teodorovich O.V., Gabdurakhmanov I.I., Naryshkin G.A., et al; // Materials of the X Russian Congress of Urologists. Moscow, 2002.- P. 789-790.
15. Troxel SA, Low RK, Das S. Extraperitoneal laparoscopy- assisted percutaneous nephrolithotomy in a left pelvic kidney. J Endourol 2002; 16(9): 655-657.