

the drainage, relapse rate. Also, we checked the histological findings – tumor type, Furman gradation, status of the surgical site.

**Results:** Access conversion to open procedure was carried out in 1 (3.3%) case, due to technical difficulties with equipment. The duration of operations averaged  $148.2 \pm 23.1$  minutes (range: 90–300 min). Partial resection in 5 (16.7%) patients was performed without renal ischemia (“zero ischemia”), in 25 (83.3%) cases by clamping the renal artery, and the average time of thermal kidney ischemia was  $19.2 \pm 4.2$  minutes (range: 9–43 min). Simultaneous operations were performed in 3 (10.0%) cases, of them in 2 cases were performed ureterolithotomy, and in 1 case – cholecystectomy. The volume of intraoperative blood loss, on average, was  $182.5 \pm 25.1$  ml (range: 50–1000 ml), there was no need for blood transfusion.

Intraoperative complications were observed in 3 (10.0%) cases, including damage to the inferior vena cava (1 case), gross bleeding from the renal parenchyma (2 cases), in one of them there was a need for additional surgical intervention due to bleeding in early post-operative period – LP nephrectomy was performed.

Postoperative complications were observed in 3 (10.0%) patients, including the paranephral hematoma formation (1 case), hyperbilirubinemia (1 case), and early postoperative bleeding (1 case). According to the adapted classification of surgical complications of Clavien-Dindo (2004), these complications were regarded as complications of I, II and IIIb degrees, respectively.

The duration in hospital stay was, on average,  $4.0 \pm 0.3$  bed/days (range: 2–6 bed/days). The duration of removal of the drainage installed in the perinephral space was, on average,  $1.8 \pm 0.2$  days (range: 1–3 days).

Microscopic examination of a removed tumor revealed ccRCC in 16 (53.3%) cases, chRCC in 5 (16.6%), pRCC in 3 (10.0%), angiomyolipoma in 3 (10.0%), metanephric adenoma in 1 (3.3%), multicameral mucinar cyst – in 1 (3.3%) and suppurating cystic formation – in 1 (3.3%) case. According to the degree of malignancy, RCC in 9 (37.5%) cases was G1, in 11 (45.8%) – G2, in 3 (12.5%) – G3, in 1 (3.3%) case – G4. According to the results of histological findings, the surgical margin was negative in 19 (79.2%) cases, positive in 5 (20.8%).

During the dynamic monitoring of the patients after operation, the signs of local or metastatic relapse were not detected yet.

**Conclusion:** Laparoscopic partial resection seems to be an effective, safe and oncologically substantiated surgical method for treating a kidney tumor in stages T1-T2. The low level of perioperative complications and the inherent advantage of laparoscopic visualization make the partial resection very attractive.

#### GUA-20 Initial experience of laparoscopic operations in urology in Khorezm region

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**Background:** For many years, the only method of operative treating of urological patients was open surgical interventions, the significant trauma of which led to a long rehabilitation period. In the last decades, the laparoscopic surgical method has begun to be used for these diseases, which allows a different look at the problem of treating such patients. This method creates an alternative to open surgery, which makes it possible to perform radical treatment with minimal invasiveness.

**Materials and methods:** From October 2017 to August 2019, in the Khorezm branch of the Republican Specialized Scientific and Practical Medical Center of Urology, 50 patients underwent laparoscopic

surgery, of which 21 were men and 29 were women, aged 17 to 60 years.

**Results:** By the nature of laparoscopic operations, the patients were divided as follows: renal cystectomy was performed in 14 (28%) patients; ureterolithotomy in 2 (4%) patients, pyeloplasty in 10 (20%) patients, 2 (4%) of them were performed ureterolysis; Ureterocystoanastomosis in 1 (2%) patient, nephrectomy in 20 (40%) patients. Thirteen (26%) patients received transperitoneal access using, in most cases, three trocars, and the remaining 37 (74%) patients received retroperitoneoscopic approach. Blood loss during all operations ranged from 10 to 150 ml. The general condition of the patients one day after the operation was satisfactory and they were active on the second day. Drainages were removed for 2–3 days. Patients were discharged after excision of kidney cysts, ureterolithotomy and nephrectomy on days 4–5, after pyeloplasty – on days 6–7. In patients under observation from 3 months to 1 year, early and late complications were not observed.

**Conclusion:** Performing laparoscopic operations in urological patients is a modern promising minimally invasive surgical intervention, which allows to eliminate pathology in a short period of hospital stay and quickly restore working capacity and significantly improve the quality of life.

#### GUA-21 Results of totally tubeless percutaneous nephrolithotomy in patients with existing nephrostomy tube

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**Background:** Percutaneous nephrolithotomy (PNL) is the effective method of surgical treatment for renal stones >2 cm. Standard PNL technique includes nephrostomy tube placement at the end of the procedure. One of the modifications of PNL is totally tubeless PNL, which has been promoted by Bellman in 1997, and significantly reduces patient’s hospital stay duration.

**Objective:** The purpose of our study was to evaluate of the dependence of results of totally tubeless PNL on existence of pre-installed nephrostomy tube.

**Materials and methods:** From 2010 to 2017, in the Republican specialized scientific-practical medical center of urology (Tashkent, Uzbekistan), 136 patients underwent a totally tubeless PNL on upper urinary tract stones. 24 of them (group 1), previously underwent percutaneous nephrostomy tube placement according to indications. For remaining 112 patients (group 2), access to the kidney was performed during procedure using Mannheim technique. Stone disintegration was performed with ultrasonic and ballistic lithotripsy. At the end of the procedure the guidewire was left in place for the 3–5 minutes for checking the signs of the active bleeding. If there were clear urine, the ureteral catheter and guidewire were removed.

All procedures were performed without significant complications. The operation time, hospital stay and analgesia requirements were compared in the two groups.

Statistical analysis was performed using IBM SPSS Statistics v 21. The Shapiro-Wilk test was used to assess compliance with the normal distribution of data. Comparative differences were considered statistically significant, with p values <0.05.

**Results:** The mean stone size in group 1 and 2 was  $24.8 \pm 2.65$  mm and  $26.6 \pm 1.09$  mm respectively, there was no statistically significant difference between the groups ( $t = 0.66$ ,  $p > 0.05$ ). The operation time in group 1 was significantly less ( $t = 2.28$ ,  $p < 0.05$ ) than in group 2 ( $50.7 \pm 3.16$  min and  $59.9 \pm 1.67$  min, respectively). The average hospital stay duration in group 1 was less ( $t = 2.09$ ,  $p < 0.05$ ) than in group 2 ( $2.8 \pm 0.20$  days and  $3.6 \pm 0.16$  days, respectively). The analgesia