

**Methods:** A total of 24 patients with DN Stage 3 CKD were recruited for study. Each patient was treated with 6 sessions of LI-SWT, using lithotripter Modulith SLK, 3 times a week. During each session 3000 shocks were applied to 6 segments of each kidney in the upper and lower poles and in mid portion. Energy applied was  $0.32 \text{ mJ/mm}^2$  with frequency 4 Hz. All patients had follow-up at 1, 3, 6, 9, 12 months after treatment. The results were analyzed by statistical programs SigmaPlot Version 12.5.

**Results:** The treatment was well tolerated with no need for analgesia. Transient microscopic hematuria was observed in all patients immediately after LI-SWT. Only 2 patients experienced lower back tenderness 1 day after treatment. Creatinine decrease immediately after each procedure ( $p < 0.001$ ) and at 12 months there was statistically significant decrease (median 132 versus 129,  $p = 0.030$ ). Improvement of GFR was statistically significant ( $p = 0.004$ ). Systolic blood pressure value after 12 months had significantly decreased (median 150 versus 130,  $p < 0.001$ ), however diastolic blood pressure did not decrease significantly (90 versus 80,  $p = 0.053$ ). We also noticed significant increase in kidney volumes, when compared to baseline ( $p < 0.001$ ).

**Conclusions:** LI-SWT could be a safe treatment for DN. However further studies with more patients and longer follow up are necessary.

#### GUA-36 Influence of anesthesia on pain in dialysis arterio-venous fistula operations

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**Objective:** Both, regional and local anesthesia are used for dialysis arterio-venous fistula (AVF) formation in end-stage renal disease patients. There are no prospective, randomized clinical trials comparing effectiveness of these types of anesthesia in these patients.

**Materials and methods:** It was a prospective, randomized study. One hundred three patients with ESRD underwent dialysis AVF operations on upper limb. The patients have been randomly divided in two groups. Group I: 49 patients in whom the operations have been done under the local anesthesia; and Group II: 54 patients in whom the operation has been performed under the vertical infraclavicular block. Radio-Cefalic, Brachio-Cefalic and Brachio-Basilic(I stage transposition) fistulas have been created in all patients. Influence of the type of anesthesia on intra- and postoperative pain has been evaluated and compared between the groups.

**Results and discussion:** The mean follow-up was 359.5 days in Group I and 340.5 days in Group II ( $p = \text{NS}$ ). The mean patients age was  $59.7 \pm 13.1$  years and  $60.1 \pm 14$  years in local and regional anesthesia groups, respectively ( $p = \text{NS}$ ). For the whole group, significantly fewer of patients with regional anesthesia required additional perioperative analgesics as compared with the local anesthesia group ( $p = 0.0363$ ). Time to postoperative pain initiation was significantly higher in Group II (2.3 hours) as compared with the Group I (1.7 hours,  $p = 0.0477$ ). The need for postoperative pain killers was significantly less in regional as compared with the local anesthesia ( $p = 0.0318$ ). Duration of operation was significantly less in regional (67.5 min.) as compared with local anesthesia (134.7 min.  $p = 0.0007$ ) group. This difference has been detected in Brachio-Cefalic and Brachio-Basilic fistulas ( $p = 0.0257$  and  $0.001$ , respectively) but not in Radio-Cefalic one. No anesthesia related complications have been detected. Insufficiency of regional anesthesia has been identified in 3 cases (5.5%). In 5 patients from regional anesthesia group (9.4%) as a result of vasodilation have made more simplified operation.

**Conclusion:** Regional anesthesia provides significantly better perioperative analgesia as compared with the local anesthesia in AVF operations. It can change the tactic of surgery, significantly decreases

the operation time and should be a method of choice for some forms AVF operations.

#### GUA-37 Influence of type of anesthesia on hemodynamic parameters and outcome of dialysis arteriovenous fistula operations

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**Objective:** The goal of the study was to compare effectiveness of regional and local anesthesia in dialysis arterio-venous fistula (AVF) operations.

**Materials and methods:** It was a prospective, randomized study. 103 patients with end stage renal disease underwent AVF operations on upper limb. The patients have been randomly divided in two groups. Group I: 49 patients in whom the operations have been done under the local anesthesia; and Group II: 54 patients in whom the operation has been performed under the vertical infraclavicular block. Duplex sonography evaluation of upper arm vessels was performed pre-operatively and at 1, 3 and 6 months postoperatively. Following parameters were measured on duplex scan: vessel diameter, blood flow rates (PSV and EDV), resistive index (RI) and pulsatility index (PI).

**Results and discussion:** Significantly fewer patients with regional anesthesia required additional perioperative analgesics as compared with the local anesthesia group. Time to postoperative pain initiation, need for postoperative pain killers was significantly better in Group II as compared with the Group I. Duration of operation was significantly less in regional as compared with local anesthesia. Postoperative PSV and EDVs were negatively correlated with patient age. The fistula maturation time was positively correlated with age. The vein diameter, postoperative PSV and EDV have been significantly increased in Group I as compared with Group II. The postoperative PI has significantly increased and RI has significantly decreased in Group I as compared with Group II. The total number of dialysis punctures was higher in regional as compared with the local anesthesia.

**Conclusion:** Regional anesthesia provides significantly better analgesia as compared with the local anesthesia in AVF operations. It significantly improves the duplex sonography parameters after AVF formation. It can be a method of choice for some forms of fistulas.

#### GUA-38 Short-term functional and oncological results of prostate capsule-sparing cystectomy, comparison with conventional radical cystectomy

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**Introduction:** The treatment of choice for management of invasive as well as a high-risk superficial bladder tumor is radical cystoprostatectomy. However radical surgery substantially affects urinary continence rate and erectile function of these patients. To improve urinary continence rate and erectile function the different surgical technique of prostate-sparing cystectomy was proposed during last two decades. The aim of our study was an evaluation of technical feasibility, functional and early oncological results of prostate capsule sparing cystectomy (PCSC) in comparison with conventional radical cystectomy (CRC) patients undergoing orthotopic urinary diversion.

**Materials and methods:** From January 2017 to December 2018 eight patients out of 32 who were candidates of orthotopic urinary diversion