

SIMPLE TUMOR ENUCLEATION AND STANDARD PARTIAL NEPHRECTOMY HAVE SIMILAR PERIOPERATIVE RESULTS AND TRIFECTA OUTCOMES: COMPARISON BASED ON A MATCHED-PAIR ANALYSIS OF 400 PATIENTS FROM THE DEFINITIVE RESULTS OF RECORD1 PROJECT

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Aim of the study

Simple tumor enucleation and Standard partial nephrectomy have similar perioperative results and trifecta outcomes: comparison based on a matched-pair analysis of 400 patients from the definitive results of RECORD1 project

Materials and methods

1055 patients treated with nephron sparing surgery (NSS) between January 2009 and December 2012 were evaluated. Overall, 200 patients who underwent STE were retrospectively matched with 200 patients treated with SPN through a propensity score analysis based on preoperative variables. An intraoperative, early post-operative and Trifecta comparison was performed between the two groups. Trifecta was defined as simultaneous ischemia \leq 25 min, no surgical complication and absence of positive surgical margin (PSM). Multivariable analysis was applied to predict factors independently associated with negative trifecta outcome.

Results

STE and SPN presented similar WTT (18 vs 17 min) and intraoperative blood loss (200 vs 196 cc). STE and SPN were also associated with similar surgical complication (11% vs 7.5%), surgical Clavien 3 (3% in both groups) and Trifecta outcome (74% vs 73.5%) rate. The incidence of PSM was significantly lower in patients treated with STE (1% vs 5%; $p=0.02$). Clinical diameter was significantly higher in patients with negative trifecta outcome (3.5 vs 3 cm, $p=0.01$), but at the multivariable analysis, only

Discussion

The RECORD Project is a 4-Year prospective observational multicenter study promoted by the Italian Society of Urology. This study confirms the results sorted out from the partial data of RECORD project. SE and SPN presented similar overall and major surgical complications, PSM are significantly higher in PN. Tumor diameter and tumor endophytical growth are the main predictive factors of no trifecta achieving.

Conclusions

To our knowledge this is the first multicenter matched-pair comparison of patients treated by STE and SPN. The two techniques seems to have similar perioperative and trifecta outcomes. STE have lower rate of PSM, but it needs further confirmation in a prospective study with central pathological revision. Endophytic growth pattern remains an important predictive factor of negative trifecta outcome.

SLIDING CLIPS VERSUS SEPARATED STITCHES RENORRHAPHY AT TIME OF LOMBOTOMIC PARTIAL NEPHRECTOMY: A PROSPECTIVE RANDOMIZED TRIAL

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Aim of the study

to compare two different renorrhaphy techniques during open lumbotomic partial nephrectomy

Materials and methods

All patients candidates to conservative renal surgery were recruited. Subjects were randomized in two homogeneous and equal groups according to body mass index (BMI) and R.E.N.A.L. nephrometry score (min 3 – max 12). We performed in both groups an open flank approach and the same technique for tumor resection. We executed two different techniques of renorrhaphy. In group one separated C-T-X needles Vetryl® 0 sutures were placed on both sides of renal wound. A different numbers of sutures were placed according to the size of the renal defect. Afterwards the two free ends of the suture were tied together above a bolster of Tachoamb® to enforce the pressure on the resection area and to avoid tearing out the sutures. In group two it was performed a "sliding clips" renorrhaphy technique: a knot was tied at the end of a 0 PDS® suture. Above the knot, it was placed an Hem-o-Lock®. A running suture were then performed placing at each passage of the needle at both side of the renal wound an Hem-o-Lock®. To tighten, the loose end of each suture was grasped with a needle driver and tension was applied perpendicular to the capsule in order to minimize the risk of tearing. In both groups it was applied at the end of the renorrhaphy a Flowseal® solution on the renal wound to ensure haemostasis. All surgeries were performed by the same experienced surgeon (SP). The outcome measurement was the comparison in both groups of X2 distribution of the following outcomes: warm ischaemic time, estimated blood loss, hospital stay and drainage leakage.

Results

40 patients entered the study and were assigned equally to the two groups. Results were the following respectively for group one (separated stitches) and group two (sliding clips): Renal score: 5.85 ± 1.46 ; 5.9 ± 1.48 ($p=0.73$). BMI: 27.8 ± 4.7 ; 28.15 ± 4.4 ($p=1$). Warm ischaemic time (minutes): 18.45 ± 2.72 ; 23.75 ± 1.77 ($p=0.027$). Estimated blood loss (ml): 158.2 ± 61.5 ; 170.75 ± 65 ($p=0.002$). Hospital stay (days): 6.9 ± 1.2 ; 6.1 ± 0.9 ($p=0.99$). Drainage leakage (ml): 167 ± 46.8 ; 139.5 ± 48.4 ($p=0.001$). All patients were safely discharged without major complications. One patient of each group required

Discussion

Partial nephrectomy is the gold standard for treatment of small renal masses. This surgical procedure can be performed either by open, classic laparoscopic or robotic assisted approach. Independently by the access, there is still a lack of consensus about the best method to execute renorrhaphy, the most crucial part of this intervention

Conclusions

Sliding clips renorrhaphy provided a lower leakage trough the drainage than separated stitches suture but increased blood loss and required an higher ischaemic time. No differences were found at hospital stay between the two groups