

normalized showing the absence of renal injury and there was no statistically significant difference in glomerular filtration rate between the groups, with a mean of 79.8 ± 3.0 mL/min/1.72 m² for the LPN and 80.2 ± 2.7 mL/min/1.72 m² for the OPN group at the 5-year follow-up ($P=0.09$). The 5-year OS and cancer-specific survival (CSS), calculated using the Kaplan-Meier method, were 94% and 91% in the LPN group, and 92% and 88% in the OPN group.

Discussion

Increased incidental diagnose of small renal masses up to 90% and rising of life expectancy made partial nephrectomy the gold standard even for cT1b masses. Laparoscopic approach provides reduced morbidity, faster convalescence and better cosmetic results. The importance of these parameters could be decreased if oncologic and long-term functional results were inferior to OPN group.

Conclusions

Laparoscopic and open NSS provide similar long-term oncologic outcomes in the therapy of T1 renal cancer. Concerning the renal function, no damage to the kidney could be evidenced after LPN and OPN, with a complete normalization of renal function at the 5-year follow-up in both groups.

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SIMPLE ENUCLEATION VERSUS STANDARD PARTIAL NEPHRECTOMY FOR CLINICAL T1 RENAL TUMORS: A PROSPECTIVE MULTICENTER COMPARATIVE STUDY (RECORD PROJECT)

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Aim of the study

Aim of this study is to evaluate surgical and postoperative outcomes of SE and standard PN in a prospective multicenter dataset.

Materials and methods

The RECORD Project is a 4-year prospective observational multicenter study promoted by SIU. The study includes all patients who underwent open or laparoscopic nephron-sparing surgical treat-

ment for kidney cancers between January 2009 and January 2011 at 19 Italian centers. Approval of the study protocol by the local ethical committee was obtained at each centre. Conservative surgery was performed in the form of standard partial nephrectomy (PN) and simple tumor enucleation (SE) according to center's and surgeon's preference. Standard PN has been defined as the excision of the tumor and of an additional margin of healthy peritumoral renal parenchyma. SE, as the tumor excision without a visible rim of parenchyma tissue around the pseudocapsule. The standard PN group and the SE group were compared regarding clinical, surgical, and pathologic outcome variables. Multivariable logistic regression models were applied to analyze predictors of warm ischemia time (WIT) >20 minutes and positive surgical margin status (PSM).

Results

Overall, 535 patients were the subject of the final analysis. 226x had SE and 309 standard PN. SE was associated with a significantly longer WIT (18.3 min vs. 16.2 min, $p=0.0022$) and a significantly lower intraoperative blood loss (180 cc vs. 248 cc; $p=0.0084$) and shorter operative time (122 min vs. 151 min; $p=0.020$). The incidence of PSM was significantly lower in patients treated with SE compared with standard PN (1.3% vs. 6.7%; $p=0.01$). At multivariate analysis the only factor significantly correlated with the risk of PSM was the surgical technique, with a 5-fold increased risk of PSM for standard PN compared to SE. Overall, 119 postoperative complications were recorded in 114 patients (21.3%). Surgical and medical complications were 89 (16.6%) and 30 (5.6%). Surgical complications according to the modified Clavien classification were: grade 1 (21.4%), grade 2 (48.3%), grade 3 (30.3%). No grade 4 and 5 surgical complications occurred. No significant differences between surgical techniques were observed in terms of incidence of surgical complications, Clavien II and Clavien III surgical complications.

Discussion

This study represents the first prospective comparative multicenter study between SE and standard PN.

Conclusions

In our series of T1 RCC the incidence of positive surgical margins was significantly lower in patients treated with SE vs. standard PN. No difference was found in WIT >20 minutes and surgical complication rate between the two techniques.