(QLQ-C30, IPSS, ICIQ-SF, IIEF) had to be completed by patients before RT, at its end, at 3 months and every 6 months up to 5 years after RT. Full 3D planning data were collected and analysed with a dedicated program (Vodca, MSS GmbH, Zurich). The current analysis considered the variation of IPSS and ICIQ-SF scores between baseline and RT conclusion. In particular, an IPSS≥15 at the end of RT was focused on as the main end-point. Logistic uni-variable and stepwise multivariate (MVA) analyses were performed; Spearman and paired samples t-tests were carried out testing continuous variations between baseline and end-RT scores. *Results:* At the time of analysis (Dec 2011), 160 patients had been enrolled by 7 Institutes. 118/160 patients' basal and end-RT questionnaires were analysed. In the group of patients with baseline IPSS≥15, the IPSS score remained unchanged (n=13; average: 17.9 *vs.* 18.8, p=0.80), while it significantly worsened for the others (n=105; 11.6 *vs.* 6.9, p<0.0001). On the other hand, in the group of patients with basal ICIQ-SF≥10, ICIQ-SF improved (n=13, 4.3 *vs.* 10.9, p=0.0002), while it slightly worsened for the others (1.6 *vs.* 0.9, p=0.02); the ICIQ-SF improvement was proportional to the initial ICIQ-SF value (p<0.0001). At MVA (overall p=0.001), the main independent predictors of IPSS≥15 at RT-end were: initial IPSS (OR:1.12, p=0.01), use of hypertensive drugs (OR:4.0, p=0.02) and hypofractionation (2.5-2.65 Gy/fr *vs.* 1.8-2.0 Gy/fr, OR:3.3, p=0.05). Concerning DVH/DSH analysis, data of 85/118 patients were available; in the hypofractionated subgroup (n=45), the fractions of absolute volume/surface receiving more than 72-74 Gy (V72-74Gy, S72-74Gy) were correlated with IPSS≥15 at the end of RT; the best cut-off value assessed by ROC analysis was S74Gy>14cm2 (OR:4.9, p=0.02). *Conclusion:* These preliminary results of the DUE 01 study show initial IPSS, hypertension and hypofractionation as independent predictors of IPSS≥15 at RT-end in a population of patients prospectively followed. Despite the relatively low number of DVH/DSH, the fraction of bladder surface/volume receiving "high-doses" was correlated with IPSS≥15 in the hypofractionation subgroup. These initial results will be better refined after completing the enrolment, expected at the end of this year. The study is supported by a grant from Associazione Italiana Ricerca sul Cancro (AIRC-IG8748)

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LAPAROSCOPIC AND ROBOT-ASSISTED TUMORAL ENUCLEATION FOR TREATMENT OF SMALL RENAL MASSES: PRELIMINARY EXPERIENCE AND EXAMINATION OF POSSIBLE INDICATIONS

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Objectives: Laparoscopic partial nephrectomy (LPN) is oncologically safe for the treatement of renal masses with advantages of mininvasive surgery. Open Tumoral Enucleation (TE) ensures excellent oncological safety allowing maximum preservation of functional kidney tissue. We report our laparoscopic and robot-assisted TE experience (LTE), describing our surgical technique and veryfing the feasibility and the possible indications. *Patients and Methods:* From November 2007 to December 2010, 93 patients underwent LPN. We performed 15 (16%) LTE and 78 LPN. After location of the lesion, the limit between tumour and safe tissue was delineated by a monopolar hook. Then the vascular pedicle was clamped and the mass was enucleated by blunt dissection and by scissors using the aspirator for dissection too. If identified the peritumoral capsule was isolated by blunt dissection using the natural cleavage plane between the peritumoral capsule and normal parenchyma. Then resection bed is sutured by a running suture with Monocryl 3-0. Then resection bed was filled by sealants as FloSeal and oxidize cellulose sheets as Tabotamp and renorraphy was finished by interrupted or double sutures with Vicryl 2-0 across renal capsule or by sliding-clip technique. *Results:* For cortical tumours (CT), LTE and LPN were performed respectively in 5 (5/55; 9%) and 50 (50/55; 91%). For corticomidollar tumours (CMT), LTE and LPN were performed respectively in 10 (10/38; 26%) and 28 (28/38; 74%) cases .Regarding location of the masses, LTE was always performed for peri-hilar tumoral masses (4 cases) and in 11 tumoral masses (11/89; 12%) with other location. The median (range) pathological size of tumours treated by LTE was 2.6 (1.2-5.3) cm and the median operative time was 134 min. The median (range) ischemia time was 21 (12-35) min. The median (range) operative blood loss was 340 (100-1500) cc. We found intaoperative bleeding in 2 (13.3%) cases, both for incomplete clamp with need of hemotransfusions. Then we found 1(6.6%) case of urinary fistula treated by positioning of double j uretheral stent. The medium time of drain removal was 3 (2-10) days. Histopathological analysis revealed no positive surgical margins. We found no local recurrence during a median (range) follow-up of 15 months (1-37). *Conclusion:* LTE is a feasable technique even if not absolutely recommended for pT1a tumours, except for the treatment of peri-hilar masses when LTE let a better preservation of functional renal tissue and near structures. LTE has a low rate of perioperative complications and, as OPN, is not associated with a major risk of positive surgical margins.