

enucleation is employed quite frequently even at institutions that do not support its ubiquitous use. These data lay the groundwork for determining whether RT is a modifiable variable for functional and oncologic outcomes in patients who undergo NSS.

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ENDOSCOPIC ROBOT-ASSISTED SIMPLE ENUCLEATION (ERASE) VS. OPEN SIMPLE ENUCLEATION (OSE) FOR THE TREATMENT OF CLINICAL T1 RENAL MASSES: ANALYSIS OF PREDICTORS OF TRIFECTA OUTCOME

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Aim: The aim of this study was to analyse the intra- and post-operative complications, as well as the predictive factors of Trifecta outcome in patients submitted to endoscopic robot-assisted simple enucleation (ERASE) and open simple enucleation (OSE) for clinical T1 renal masses. **Materials and Methods:** Overall, 634 cases treated with OSE (n=290) and ERASE (n=344) were prospectively recorded in our Department between 2006 and 2014. Trifecta was defined as simultaneous ischemia time <25 min, no surgical complication and negative surgical margin. A univariate analysis and multivariate logistic regression were performed for Trifecta. **Results:** The two groups were comparable for body mass index (BMI), comorbidity, tumor side, clinical T score, tumor diameter, surgical indication, pre-operative renal function, pre-operative hemoglobin and hematocrit. A significant difference was found between the OSE and the ERASE groups in operative time (115 (96-130) vs. 150 (120-180) minutes, $p<0.0001$), pedicle clamping (93.8% vs. 69.2%, $p<0.0001$), estimated blood loss (EBL) (150 (100-200) vs. 100 (100-143) cc, $p<0.0001$) and intraoperative complications (3.4% vs. 1.7%, $p=0.02$). The two groups were comparable for warm ischemia time (WIT) ≥ 25 min. A significant difference was found between OSE and ERASE in overall (16.6% vs. 5.5%, $p<0.0001$), Clavien 2 (11.7% vs. 4.4%, $p=0.02$) and Clavien 3 (3.1% vs. 1.7%, $p=0.04$) post-operative surgical complications, length of stay (6.0 (5.0-7.0) vs. 5.0 (4.0-6.0) days, $p<0.0001$), pre-operative 1st day delta creatinine (0.3 (0.2-0.4) vs. 0.15 (0.1-0.2) mg/dl, $p<0.0001$), positive surgical margins (2.1% vs. 1.5%, $p=0.04$), and Trifecta achievement (73.8% vs. 85.5%, $p<0.0001$). At univariate analysis, a higher median clinical diameter, a

higher mean age, a higher median Charlson comorbidity index (CCI), endophytic tumor growth pattern, renal sinus and calyceal dislocation of the tumor, a higher median PADUA score and OSE were predictive factors of Trifecta achievement. At multivariate analysis, CCI lost significance ($p=0.26$), while age (odds ratio (OR)=1.02, 95% confidence interval (95% CI)=1.00-1.04, $p=0.001$), clinical diameter (OR=1.22, CI=1.05-1.42, $p=0.008$), PADUA score (OR=1.23, CI=1.07-1.41, $p=0.004$) and OSE (OR=1.74, CI=1.13-2.68, $p=0.01$) were confirmed predictive factors for Trifecta failure. **Conclusion:** The ERASE is a feasible and safe technique, which shows a comparable WIT, together with a significantly lower EBL, surgical complications' rate, length of stay and a significantly higher Trifecta achievement compared to OSE. Age, comorbidity, tumor diameter and PADUA score, in association with surgical approach, represent significant predictive factors of Trifecta failure.

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PROSPECTIVE ANALYSIS OF COMPLICATIONS AND THEIR PREDICTIVE FACTORS AFTER PARTIAL NEPHRECTOMY IN A MULTICENTER COMPARATIVE ITALIAN STUDY (RECORD1)

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Introduction/Aim: Absence of surgical complications represents an important perioperative goal of partial nephrectomy (PN). The aim of this study was to analyse intra and post-operative complications related to nephron-sparing surgery (NSS) in clinical T1 renal tumors in a wide Italian multicentre dataset and search for possible predictive factors. **Materials and Methods:** Overall, 1,075 patients treated with NSS for clinical renal tumors, between January 2009 and December 2012, were prospectively recorded. Overall, X patients had open NSS, Y a laparoscopic and Z a robotic approach. Centres were divided in high- and low-volume according to the threshold of 50 interventions per year. A description of cT1 cases (n=965) and a uni- and multivariate analysis for surgical complication were performed. **Results:** Overall, 965 patients were analyzed. 4.9% had intraoperative complications (3% for pleural injuries, 1% for vascular injuries, 0.3% for spleen injuries and 0.6% for other causes). Overall, in 13.3% of patients, post-operative surgical complications were recorded (7.6% surgical Clavien 2 and 3.8% surgical Clavien 3). Overall, 6.4% of patients had post-operative medical complications (3.2% were respiratory, 1.9% cardiologic, 0.2% thromboembolisms and 1.1% for other causes). At multivariate analysis, ECOG score ≥ 1 (odds ratio (OR)=1.9, 95% confidence interval (CI)=1.21-3.10, $p=0.01$), clinical diameter (OR=1.42, CI=0.1.07-1.90, $p=0.02$), open approach (OR=3.2, CI=1.11-9.30, $p=0.03$) and estimated blood loss (EBL) (OR=1.01, CI=1.00-1.01, $p=0.01$) were significant predictive factor of surgical post-operative complications. Intra-operative complications, at univariate analysis, were predictive factors for surgical post-operative complications ($p=0.0001$); however, they did not achieve significance at multivariate analysis (OR=2.08, CI=0.94-4.59, $p=0.07$). **Conclusion:** In this study, comorbidity status (ECOG score) and clinical diameter of the tumor were the only pre-operative significant predictive factors of surgical complications, along with higher EBL and the open approach.

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DEFINITIVE RADIOTHERAPY IN THE TREATMENT OF BLADDER CANCER IN ≥ 80 -YEAR-OLD PATIENTS: ANALYSIS OF TOXICITY AND OUTCOMES

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Aim: The aim of this study was to evaluate toxicities and survival rates of exclusive radiation therapy (RT) in the treatment of elderly patients with bladder cancer. Material and

Methods: Between May 2011 and January 2016, 20 patients with bladder cancer previously submitted to transurethral resection (TURB) with diagnosis of high-grade transitional cell carcinoma, were treated with exclusive RT. Age ranged from 80 to 87 years (median=81). Five patients (25%) presented stage II disease, 10 (50%) stage II and 5 (25%) stage IV (M0). A 3-dimensional conformal treatment (3D-CRT) with a four-field box technique was planned delivering to the pelvis 45 Gy in 25 fractions with a sequential boost of 22 Gy in 11 fractions to the bladder and positive nodes for a total dose of 67 Gy. Acute and late toxicities were evaluated according to RTOG scale. **Results:** The median follow-up was 10 months (range=3-44). Acute genitourinary (GU) toxicity rates were 75%: grade 1/2 and grade 3 were, respectively, 70% and 5%. Grade 1-2 gastrointestinal (GI) toxicity rate was 25%. Grade 1/2 GI late toxicity rates was 10%. No grade ≥ 2 toxicity was recorded. Grade 1 and grade 2 GU late toxicity rate was 35% and 10%, respectively. No grade ≥ 3 toxicity was recorded. Overall survival (OS) was 100% at 2 years and 56% at 3 years. Four patients died because of systemic disease progression. Five patients died from intercurrent disease without evidence of bladder cancer. The actuarial 1-year and 2-year disease-free survival (DFS) were 59.8% and 33.7%, respectively. **Conclusion:** This study demonstrated that in ≥ 80 -year-old patients, not candidate to surgery or to concomitant radio-chemotherapy for age and general conditions, exclusive definitive radiotherapy represents a valid alternative, after TURB, with acceptable toxicity profile.

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A SNAPSHOT OF NEPHRON SPARING SURGERY IN ITALY: A PROSPECTIVE, MULTICENTER REPORT ON CLINICAL AND PERIOPERATIVE OUTCOMES (THE RECORD 1 PROJECT)

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