Program and Abstracts

31st WORLD CONGRESS of ENDourology & SWL

WCE 2013

October 22–26, 2013

New Orleans, Louisiana
Chi-square statistic was also used to compare each CNT with the overall mean rate for the province. In a similar manner, the regional area rate variation for ancillary treatment was evaluated.

RESULTS: We identified 73,055 procedures (SWL = 28,319, URS = 39,602, PCNL = 5,104). The number of procedures increased from 11,474 in 2005 to 13,183 in 2010 and the age and sex adjusted rate for stone procedures across all 6 years was 140.23/100,000. There was a moderately large degree of variation in the utilization of both SWL (SCV 167.56) and URS (SCV 200.38). For SWL, 5 CNT had rates significantly higher than the provincial rate (p < 0.0001) and included the 3 CNT with lithotripters. Accordingly the 3 CNT with lithotripters, in addition to 2 others, had significantly lower rates of URS (p<0.0001). Five of the 11 CNT with significantly higher rates of URS had significantly lower rates of SWL. Minimal regional variation was seen for PCNL utilization, as well as for ancillary treatment across all modalities (p>0.05).

CONCLUSIONS: Regional variation exists in the utilization of SWL and URS in Ontario and is closely related to proximity to SWL centres. Conversely, utilization of PCNL was more uniform across the province. Despite variability in treatment utilization rate, need for ancillary treatment did not vary greatly across regions.

Source of Funding: none

MP08-01 ROBOTIC RADICAL CYSTECTOMY WITH TOTALLY INTRACORPOREAL URINARY DIVERSION: PRELIMINARY RESULTS
Mariaconsiglia Ferriero*, Giuseppe Simone, Rocco Papalia, Salvatore Guaglianone, Rome, Italy, Mihir Desai, Inderbir Gill, Los Angeles, CA, Michele Gallucci, Rome, Italy

INTRODUCTION AND OBJECTIVES: In the last few years robotic radical cystectomy (RRC) for muscle invasive bladder cancer began to gain popularity. However total intracorporeal diversion is a challenging procedure.

In this series we presented feasibility, complication rate and perioperative outcome of our first 21 patients treated with RRC and intracorporeal urinary diversion.

METHODS: From January to March 2013, 21 consecutive unselected patients with cT2-4a/cN1-3/cM0 bladder cancer underwent RRC, super-extended lymphadenectomy and totally intracorporeal diversion. Baseline demographics and perioperative data were collected and reported.

RESULTS: Robotic intracorporeal urinary diversion was successfully performed in all patients (Studer neobladder: 7 patients, Padua ileal Bladder: 7 patients, Ileal Conduit: 7 patients). Median age and BMI were 64.5 yr and 26.5, respectively.

Median operative time was 240 (IQR 226.5–274) minutes for ON group and 255 (IQR 185–278) minutes for IC group, respectively, (p = 0.227).

In the whole cohort, median preoperative and postoperative haemoglobin were 14.5 g/dL (IQR 13.6–15.7 g/dL) vs 12.2 g/dL (IQR: 11.3–13.2) respectively, median preoperative and postoperative serum creatinine levels were 0.83 mg/dL (IQR 0.69–1.03) vs 1.29 mg/dL (IQR 0.83–1.78). Median time to regular diet was 6 d (IQR 5–7), median hospital stay was 9 d (IQR 7–13.7). The median number of lymph nodes removed at pathologic examination was 37 (IQR 32.75–41).

Perioperative Clavien grade 3–5 complication rate was 23.8% (n = 5/21).

The first 5 patients with ON experienced grade 3b complications (including bowel anastomosis dehiscence and urinary leakage, treated with re-anastomosis and bilateral nephrostomies, respectively).

Pathologic data were summarized in Table 1.

CONCLUSIONS: RRC with totally intracorporeal urinary diversion is feasible and safe. The orthotopic reconstruction is subject to a higher rate of 3–5 grade complications than IC even if it happened in the first cases. A step-wise standardization of technique reduces operative time and perioperative complication rate.

Source of Funding: None

MP08-02 THE FIRST NATIONAL EXPERIENCE OF INTRAVESICAL INJECTION OF THE TRACEIT™ TISSUE MARKER UNDER A LOCAL ANESTHESIA FOR IMAGING VISUALIZATION OF MUSCLE-INVASIVE BLADDER CANCER FOR THE TARGETED IMRT
Joel Bass*, Po Lam, Christopher Pieczonka, Syracuse, NY, Patrick Campbell, Waltham, MA, David Albala, Howard Williams, Vladimir Mouraviev, Neil Mariados, Syracuse, NY

INTRODUCTION AND OBJECTIVES: The treatment of muscle invasive bladder tumors remains challenging for urologic oncologists. Targeted radiation therapy coupled with chemotherapy has become as a promising treatment modality comparable with a radical cystectomy according to the cancer control results. Radiation oncologists often combine, or fuse, MR and CT images to improve dose planning, accuracy. However, most markers do not have equivalent visibility on both CT and MR, creating a permanent image artifact in areas of particular interest and limiting their usefulness for image fusion. The TraceIT™ Tissue Marker (Augmenix, Waltham, MA) is an injectable polyethylene glycol based hydrogel marker designed to be visible under CT, cone beam computed tomography (CBCT), MR and ultrasound imaging for three months after implantation, and then to absorb within seven months.

METHODS: Patient M, 80 years with history of left nephroureterectomy for upper tract urothelial carcinoma 1.5 years ago...
ago diagnosed with recurrent bladder cancer. Cystoscopy was performed where a large papillary tumor more than 5 cm on anterior wall was found and resected by TURBT. The histology confirmed a high-grade muscle-invasive urothelial carcinoma with lymphatic invasion. Patient declined radical cystectomy and chose combination radiotherapy and chemotherapy. In order to outline a bladder tumor margins, the patient agreed to undergo an injection of TraceIT™ Tissue marker before IMRT. Under local anesthesia (inhastral 2% lidocaine gel and intravesical 1% lidocaine) a rigid 20 Fr. resectoscope was introduced into bladder, systematic cystoscopy was performed and of tumor was localized. TraceIT™ was injected using a 23G needle with 0.3 ml into 6 locations around tumor resection bed within 1 cm from cancer borderin total amount of 1.8 ml were injected.

RESULTS: Patient tolerated a procedure well and immediately underwent planning CT scan following the injection. The patient was discharged following completion of the planning CT scan. Three days later, IMRT radiation therapy was started for a planned dose of 65 Gy in total on the Varian image-guided linear accelerator using Rapid Arc technology. The exact outlining of tumor margins on CBCT provided with TraceIT hydrogel allowed us to use a targeted boost IMRT regimen that led to cancer eradication with minimal toxicity.

CONCLUSIONS: Next generation absorbable tissue markers such a TraceIT hydrogel™ extends our ability to exactly map the tumor margins for targeted radiation therapy.

Source of Funding: none

MP08-03 ROBOTIC RADICAL CYSTECTOMY AND COMPLETELY INTRACORPOREAL URINARY DIVERSION: THE USC EXPERIENCE

Andre Berger*, Andre Luis de Castro Abreu, Adrian Fairey, Sheaumei Tsai, Mehrdad Alemozaffar, Alvin Goh, Hamed Hamadi, Dennis J. Lee, Scott Leslie, Raed Azhar, Sumeet Syan, Monish Aron, Inderbir S. Gill, Mihir M. Desai, Los Angeles, CA

INTRODUCTION AND OBJECTIVES: Robotic radical cystectomy (RRC) and lymph node dissection (LND) is becoming a more standardized procedure; however, intracorporeal diversion is still in the early stages and only performed at very few centers around the world. Here we describe the evolution of the technique and lessons learned during our initial experience at USC.

METHODS: From July 2010 to November 2012, RRC and LND with intracorporeal urinary diversion surgeries were performed in 50 patients with muscle-invasive bladder cancer by the same surgical team in 3 different institutions. Data were analyzed in 37 patients who had at least 3 month followup (18 patients neobladders and 19 patients ileal conduits). Operative times for the cystectomy, LND and diversion portions of the operation were compared across all 37 patients.

RESULTS: Median time for the cystectomy and LND portions of the operation for all 37 patients, were 77 min (IQR, 61.5–123 min) and 63 min (IQR, 52–82.5 min), respectively. Median time for neobladder diversion in 18 patients was 172.5 min (IQR, 148.75–212.5 min) and for ileal conduit diversion in 19 patients was 62 min (IQR, 28–130 min). There was a significant decrease in time over successive cases for cystectomy, but not for LND or neobladder diversion (r = -0.415, p = 0.02; r = 0.158, p = 0.395; r = -0.129, p = 0.6329; respectively). For all 37 patients, median estimated blood loss (EBL) was 250 cc (IQR 187.5–325cc), lymph node yield (LNY) was 35 nodes (IQR, 18–48 nodes), and hospital stay was 9 days (IQR, 7–17 day), with a significant decrease in EBL and hos-

pital stay over successive cases but not for LNY (r = -0.347, p = 0.038; r = -0.382, p = 0.022; r = 0.190, p = 0.261; respectively). 30-day complication rate was 67.5% (Clavien III–IV, 13.5%).

CONCLUSIONS: Our technique for RRC and LND with intracorporeal diversion is evolving and while operative times for the cystectomy portion have significantly decreased, LND operative times have stayed fairly consistent, and we have modified our approach for the diversion in an effort to minimize potential problems in order to achieve shorter, more consistent operative times.

Source of Funding: none

MP08-04 COMPARISON OF OUTCOMES BETWEEN INTRACORPOREAL AND EXTRACORPOREAL ILEAL CONDUITS IN 164 CONSECUTIVE ROBOT-ASSISTED RADICAL CYSTECTOMIES

Anees Faizili*, Helen Levey, Justin Houman, Changyong Feng, Hani Rashid, Guan Wu, Rochester, NY

INTRODUCTION AND OBJECTIVES: We present our initial experience with robot-assisted radical cystectomy with ileal conduit (RACI), and compare our outcomes for intracorporeal creation of ileal conduit (ICIC) versus extracorporeal creation of ileal conduit (ECIC).

METHODS: A retrospective review was performed on all patients that underwent RACI at our institution between January 2007 and February 2013. This included 164 patients, among which ICIC was performed on 124 patients, and ECIC was performed on 40 patients. Pre-operative patient characteristics, intra-operative data, as well as peri-operative and pathologic outcomes were compared between the two groups.

RESULTS: The median age for our RACI population was 70 years old, with a mean ASA of 2.6, and mean Charlston Comorbidty Index (CCI) score of 6.2. In regards to pre-operative characteristics, there were no significant differences between the ICIC and ECIC cohorts in regards to patient age, gender, ASA score, CCI score, pre-operative GFR, or history of multiple abdominal surgeries. The ECIC cohort had a significantly higher BMI (29.7 vs. 27.4, p = 0.04) as well as rate of utilization of neo-adjuvant chemotherapy (23% vs. 10%, p = 0.04). In regards to intra-operative characteristics, whereas the frequency of lysis of adhesions, lymph node yields, and surgical margin status were similar, EBL was significantly lower in the ICIC cohort (372 vs. 548 mL, p = 0.001), as was operative time (369 vs. 411 min, p = 0.004). The mean length of stay for all RACI patients was 9.6 days, with no significant difference between our two cohorts. In regards to pathologic stage, there was a clear trend towards increased rates of non-organ-confined disease in our ICIC cohort, which attained marginal statistical significance (45.4% ICIC vs. 28.2% ECIC, p = 0.06). Nonetheless, rates of adjuvant chemotherapy utilization were similar between our groups, as were rates of local and metastatic recurrence with a mean and median follow-up of 19 and 13 months, respectively. There were also no significant differences between ICIC and ECIC in terms of overall complication rates, immediate post-operative ICU admissions, unplanned ICU admissions, or return to the operating room within 30 and 90 days.

CONCLUSIONS: Robot-assisted ICIC is technically feasible, and can be accomplished safely with acceptable and comparable operating as well as oncologic outcomes when compared to ECIC.

Source of Funding: None