

PE64 Robotic-assisted radical cystectomy: A multi-centric Brazilian experience and learning curve

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Introduction & Objectives: Radical cystectomy (RC) is the gold standard treatment for muscular invasive and recurrent high-grade non-muscle invasive bladder cancer. The robot benefit on that surgery such as less bleeding and shorter hospital length is described in the literature. Our objective is to report a multicentric Brazilian experience and outcomes since the first case performing a robotic-assisted radical cystectomy (RARC) for bladder cancer.

Materials & Methods: We performed a retrospective database review of 37 patients who underwent RARC for bladder cancer from 2013 to 2019 in four different centers in São Paulo, Brazil. The surgeons already had expertise in robotic prostatectomies before started the first RARC case. We analyzed the patient's gender, age, bladder biopsy, pathological tumor analysis, as well as peri- and postoperative outcomes. The statistical analyses were performed with the IBM SPSS version 25 software.

Results: Overall, 86% were male patients, and the mean age was 67 years old (range 45-86 years). The bladder biopsy presented 83% of muscular invasive papillary tumor and 17% of high-grade recurrent non-muscle invasive papillary tumor. Six patients (16%) underwent BCG treatment, and 11 (29%) underwent chemotherapy before the surgery. The time between the bladder biopsy and cystectomy was 118 days (range, 6-682 days). Thirty-five patients (95%) were operated with the Si console while the other 5% had the procedure done by Xi console. The mean operative time was 432 minutes (range, 210-690) and the console time was 294 minutes (range,135-490 minutes). The mean blood loss was 379 ml (range, 50-1300 ml). Four patients (10%) underwent an intraoperative blood transfusion. In 60% of the cases, we performed Bricker urinary diversion. We established the complications according to the Clavien-Dindo scale. Six patients (16%) had Clavien 1 or 2, three patients (8%) had Clavien 3, one (2,5%) Clavien 4 and two (5%) Clavien 5. The final pathology report described 95% of free surgical margin, the mean number of nodes resected was 27 (range 0-62), eight patients (21%) was diagnosed with compromised nodes with metastasis, and seven (19%) had concomitant prostate adenocarcinoma. Three patients (8%) underwent reoperation while nine (24%) underwent ICU admission. The mean hospital length of stay was 10,5 days (range,2-59 days) with 15 readmissions (38%) in less than 90 days. The survival in 30 and 90 days was 98% and 95% respectively.

Conclusions: Although RARC is challenging and the complications are common, the procedure is safe and feasible when performed by experienced robotic surgeons. We described our results since the first case in Brazil and conclude that, during the learning curve, it is possible to reproduce the technique and outcomes of referral centres with similar peri- and post-operative results.