

Robotic or open Radical prostatectomy in men with previous transurethral resection of prostate

Abstract

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Purpose; To assess and compare the surgical, oncological and functional outcomes of robotic and open radical prostatectomy in patients with history of transurethral section of prostate (TURP).

Material and methods: The study population consisted of a consecutive series of 2400 men who had RP for prostate cancer between January 2007 and January 2011 in one academic institution. In all, 48 patients with median age 65.5 (range, 46-74) had undergone TURP prior to RP. Thirty one (64.58%) patients underwent robotic RP and 17 patients had open RP. Thirty five patients (74.91%) had standard TUR and 13 patients underwent laser prostatectomy. The initial median values of PSA and Gleason score were 4.85ng/ml(0.45-22) and 7(6-10) respectively. The clinical stage was t1c in 35 patients, T2 in 12 and t4 in 1 patient. Thirteen patient was diagnosed by TUR while the remaining patients were diagnosed by transrectal ultrasound biopsy. Pelvic lymph node dissection and nerve sparing was done in 37 (77.08%) and 26 (54.16%) patients respectively. Continence was defined as being pad free with 6 months or longer follow up. The mean operative period was 4.17(range, 2.44-10.29). The mean hospitalization and follow-up periods were 2 days(range,1-10) and 13 months(range 1-52) respectively.

Results: Two patients had intraoperative rectal laceration and primary repair was enough; one from robotic series and one from open RP series. Two patients from open RP series had ureter transection which also was managed intra-operatively by ureteral re-implantation without further postoperative sequelae. Postoperatively; three patients developed lymphocele which resolved spontaneously, one patient developed hematuria due to benign polypoid mass at vesico-urethral anastomosis, thus TUR resection was done, and no urethral stricture was observed in any patient. Six patients (12.5%) had positive margins and three patients had bilateral seminal vesicle involvement. Blood loss was 250cc (range, 20-3025) and transfusion was done in 4 patients (1 from robotic RP ,3 from open RP). Lymph node yield was 11 (range, 2-40). Three patients had positive lymph nodes. All patients had undetectable PSA after RP. Biochemical recurrence occurred in 4 patients at median period of 7 months (rang, 3-21); four had salvage therapies (1hormonal therapy, 3 radiotherapy); two of them achieved undetectable PSA and two had PSA values of 0.2 and 1 ng/ml respectively. Continence data was available in 31 patients of which 23 (74.19%) were pad-free. Erection with or without medication was achieved in 21

patients (60%) (data on erectile dysfunction were available on 35 cases). Ten patients from those who did not have postoperative erection with/ without medication had erectile dysfunction score of 9.5/25 (range, 3-20). The PSA value at the last follow-up was less than 0.1 in all patient except in two patients who had PSA values of 0.2 and 1ng/ml respectively.

Conclusion: Significant complications can occur during open or robotic RP after TURP; however these complications can be successfully managed intraoperatively with no long-term sequelae. Thus, both open and robotic RP after TURP are feasible, safe and with acceptable oncologic and functional outcomes. The outcomes of robotic RP are comparable to that of open RP. Patients should be made aware of possibility of intra operative difficulty and informed of the expected postoperative functional outcome before undergoing RP following TURP.