VE04 Robot-assisted fascia- and nerve-sparing radical prostatectomy in patients after previous TURP or laser enucleation

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Gaas M., Enikeev M.E., Fokin I.V., Vorobyov A.A., Lobanov M.V., Chuvalov L.L., Rapoport L.M., Glybochko P.V.

Sechenov University, Dept. of Urology, Moscow, Russia

Introduction & Objectives: Robot-assisted radical prostatectomy (RARP) in patients after previous TURP or laser enucleation (LE) is technically more complicated due to periprostatic fibrosis and possible changes in the usual anatomical landmarks. This surgery can be associated with elevated risks of intra- and postoperative complications and can have a negative effect on functional outcomes.
Objective. To compare oncological and functional outcomes of RARP, including fascia- and nerve-sparing modification, in patients with or without prior BPH surgery.

Materials & Methods: The study included 96 patients divided into two groups who underwent RARP: the study group (n=48) with T1a, T1b and T1c prostate cancer with prior TURP or LE and the control group (n=48) with T1c–T2b without previous surgery. Mean age was 62.6 years in the study group and 63.3 years in the control group. Body mass indices and PSA levels were comparable in both groups. All the patients were classified into low and intermediate risk groups prior to surgery and their parameters were comparable (p=0.36). RARP in fascia- and nerve-sparing modification was performed in 5 cases in the study group and in 10 cases in the control group. Mean follow up was 21.8 months in study group, and 26.4 months in the control group (p=0.07).

Results: Mean surgery time was 194.3 min in the study group and 176.5 min in the control group. Mean blood loss was greater in the study group (231 ml) than in the control group (140 ml). The difficulties met during surgery on patients with previous TURP or LE were lack of clear differentiation of layers due to perifocal fibrosis and remaining hyperplastic tissue. Positive surgical margin was detected in 1 case in the study group and in 3 cases in the control group (p=0.179). Recurrence was observed in 3 cases (6.3%) in both groups. In 1 patient from the study group, remote radiation therapy was performed. Among patients who underwent RARP in fascia- and nerve-sparing modification, erectile function recovery was observed in 5 cases (33.3%) at 12 months after surgery (2 from the study group, 3 from the control group). 41 (85.4%) patients in the study group and 44 (91.7%) patients in the control group were pad free. No cases of severe incontinence were noted.

Conclusions: RARP is significantly longer in patients with prior TURP and associated with higher risks of hemorrhage. The control group showed a little better continence recovery which may stem from a small sample and varying aspects of the surgical technique. RARP, including the fascia- and nerve-sparing modification, in patients after previous TURP or LE is a feasible procedure with good oncological and functional results that are not very different from the patients without prior surgery.