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Introduction & Objectives: Benign prostatic hyperplasia (BPH) is the most common disease in men after 50-60 years old. Transurethral methods of removing BPH are considered the “gold” standard of surgical treatment for this disease at the present time. However, for large and very large sizes of the prostate (>200 cc), TUR may not be possible. An open retropubic simple prostatectomy has been and remains the method of choice for surgical treatment of large BPH in most clinics. Open and robot-assisted simple prostatectomy (RASP) allow achieving similar functional results. However, robot techniques can replicate the efficacy of the open operation while reducing convalescence.

Materials & Methods: Between Oct. 2016 and Feb. 2019 in Department of Urology, MCSC, 13 patients with BPH were given a RASP. Operations performed by a single-surgeon with big experience of robot-assisted radical prostatectomy (RARP). The average age of the patients varied from 69 to 78 years (mean age 73 years). Median prostate volume was 223 cc. The installation of the robotic ports and the assistant's port was performed at standard points, as in the case of a RARP. Access in the pelvis to the bladder was transperitoneal. The intrapelvic fascia was not opened. The dorsal venous complex was not stitched and did not intersect. Access to the prostate was carried out in all cases transvesically: The bladder was dissected directly above the neck in the transverse direction. Traction of the adenoma was aided by using Keith needles. The bladder mucosa was incised and the dissection of the adenoma was performed till complete adenectomy. Hemostasis of the enucleation place was performed with bipolar coagulation. A 2-0 Polysorb suture was used for accomplishing the trigonization. The defect in bladder was sutured in 2 layers. Three-way Foley catheter was inserted, then a water-tightness test was performed. The removed material was extracted using Karl Storz morcellator.

Results: Mean operative time was 166 min. The average blood loss was 250 ml (140-390 ml). No serious complications were recorded. 2 patients had minor complications (15%). Median catheterization time was 6 days. All patients underwent retrograde cystography before removing the catheter. Regarding functional outcomes, patients had significant improvement of Qmax, post-voided residual volume and IPSS at postoperative control. There was no incontinence. Average hospital stay was 7 days.

Conclusions: RASP is feasible, safe and effective operation. It is a modern method of choice for surgical treatment BPH for large and very large sizes. RASP is associated with less blood loss, shorter hospital stays and less need for analgesics in the postoperative period. Prospective comparison with alternative minimally-invasive endoscopic techniques is warranted. Longer follow-up studies of RASP are still needed.