



Transvesical Clipless Robot-Assisted Radical Prostatectomy Using a Multiport Platform: Technical Feasibility and Early Outcomes

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ABSTRACT

Introduction: Robot-assisted radical prostatectomy (RARP) continues to evolve with surgical approaches aimed at preserving continence-related anatomy and optimizing postoperative recovery (1). Transvesical RARP has gained increasing interest, particularly with the advent of single-port platforms (2, 3). Building on our prior experience with clipless techniques and functional outcome optimization (4), we evaluated a multiport transvesical approach.

Objective: To describe, step-by-step, a clipless transvesical RARP technique and to report its feasibility and early functional and oncologic outcomes.

Materials and Methods: An intravesical, line-of-sight technique was employed, with abdominal trocars positioned similarly to conventional transperitoneal RARP. The surgical sequence included: posterior release; longitudinal cystotomy with suspension sutures; semicircumferential bladder neck incision; bilateral clipless lateral dissection (blunt and sharp); anterior and apical release with dorsal venous complex control; urethral transection; urethrovesical anastomosis using two 3-0 barbed sutures; and single-layer cystotomy closure. Three consecutive patients with localized prostate cancer and moderate prostate volumes were included.

Results: All procedures were completed as planned. Perioperative morbidity was low; one Clavien–Dindo grade II complication was managed conservatively. Early continence was observed in all patients, including at the first postoperative evaluation (45 days). One patient (Case 3) presented with a focal apical positive surgical margin on final pathology; prostate-specific antigen levels were undetectable in all cases during early follow-up. The approach was technically feasible and familiar to surgeons experienced in anterior RARP. Larger prostate volume may limit intravesical working space and apical visualization.

Conclusions: We describe a reproducible clipless transvesical RARP performed using a multiport platform, addressing a body of literature predominantly focused on single-port systems. The technique demonstrated encouraging early functional outcomes in carefully selected patients (5); however, larger prostate volumes and longer follow-up are required to further define its oncologic and functional durability. This video complements our previous publication on alternative RARP approaches supporting anterior-preserving strategies (6).

CONFLICT OF INTEREST

None declared.

REFERENCES

1. Santarelli V, Corvino R, Bevilacqua G, Salciccia S, Di Lascio G, Del Giudice F, et al. Latest advancements and future directions in prostate cancer surgery: reducing invasiveness and expanding indications. *Cancers (Basel)*. 2025;17(18):3053. doi:10.3390/cancers17183053.
2. Ramos-Carpinteyro R, Ferguson EL, Chavali JS, Geskin A, Kaouk J. First 100 cases of transvesical single-port robotic radical prostatectomy. *Asian J Urol*. 2023;10(4):416-422. doi:10.1016/j.ajur.2022.12.005.
3. Hemal S, Sobhani S. Single-port transvesical robotic radical prostatectomy in a patient with hostile abdomen. *Int Braz J Urol*. 2024;50(6):779-780. doi:10.1590/S1677-5538.IBJU.2024.0333.
4. Guimarães GC, Oliveira RAR, Santana TBM, Favaretto RL, Mourão TC, Rocha MM, et al. Comparative analysis of functional outcomes between two different techniques after 1088 robotic-assisted radical prostatectomies in a high-volume cancer center: a clipless approach. *J Endourol*. 2019;33(12):1017-1024. doi:10.1089/end.2019.0361.
5. Zhou X, Fu B, Zhang C, Liu W, Guo J, Chen L, et al. Transvesical robot-assisted radical prostatectomy: initial experience and surgical outcomes. *BJU Int*. 2020;126:300-308. doi:10.1111/bju.15111.
6. Pinto Neto PR, Mourão TC, Nobre JQC, Carvalho RC, Nunes JPS, da Costa WH, et al. Lateral approach in robotic-assisted radical prostatectomy: introducing Gaston's technique in Brazil. *Int Braz J Urol*. 2025;51(4):e20250138. doi:10.1590/S1677-5538.IBJU.2025.0138.

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