VIDEO SECTION

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Robotic approach to vesicourethral anastomotic stenosis and resection of remaining prostate after radical prostatectomy

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ABSTRACT

Objective: To show a total transabdominal robotic approach to an extensive recalcitrant vesicourethral anastomotic stenosis (VUAS) after open radical prostatectomy (ORP) with end-to-end anastomosis. While there is very little literature on the matter and even fewer videos showing the actual surgical view with a step-by-step explanation in complex cases, VUAS robotic transabdominal surgery provides better view and reach, with potentially better continence results, without the need for pubectomy.

Methods: A 72-year-old male was submitted to a failed ORP for Gleason 3+4 localized cancer 2 years before, where the wrong plane of dissection left behind prostate remnants and the seminal vesicles, which evolved with a complex stenosis and recurrent episodes of acute urinary retention (AUR) that started two weeks after the first catheter removal. Five endoscopic procedures in total were unsuccessful and AUR reoccurred. A vesico-urethral cystography (VUC) and multiparametric prostate and urethral MRI found the seminal vesicles with prostate remnants, two centimeters urethral stenosis from bladder neck to bulbar urethra and periurethral fibrosis with no evidence of residual tumor. PSA was 1.2 and prostate biopsy showed no tumor on prostate remnant. A transabdominal robotic approach was chosen.

Results: Prostate residue, bladder neck and periurethral fibrosis were excised, with healthy mucosa found on both ends. End-to-end anastomosis was successful. Drain and catheter were removed on the 1st and 14th post-operative day, respectively, with good urinary stream. A VUC at 30 days showed a patent bladder neck. Incontinence was 3 pads/day after catheter removal and decreased to 1 pad/day after 180 days.

Conclusion: VUAS may reach 15% (1, 2) and endourologic therapies are first-line choices, however, recalcitrant cases require reconstruction (3-6). The most common approach is perineal, with high incontinence rates, reaching >90% (7, 8). The retropubic alternative has better but also discouraging numbers of up to 58% incontinence rates (9). Though with 100% social continence results, the 2021 European guidelines still could not recommend the robotic procedure as standard of care due to evidence limited to anecdotal reports (10-12).

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

CONFLICT OF INTEREST

None declared.

COMPLIANCE WITH ETHICAL STANDARDS

Research involving Human Participants: The authors certify that the study was performed under the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

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