Impact of ATOMS on Quality of Life in Patients with Stress Urinary Incontinence after Radical Prostatectomy

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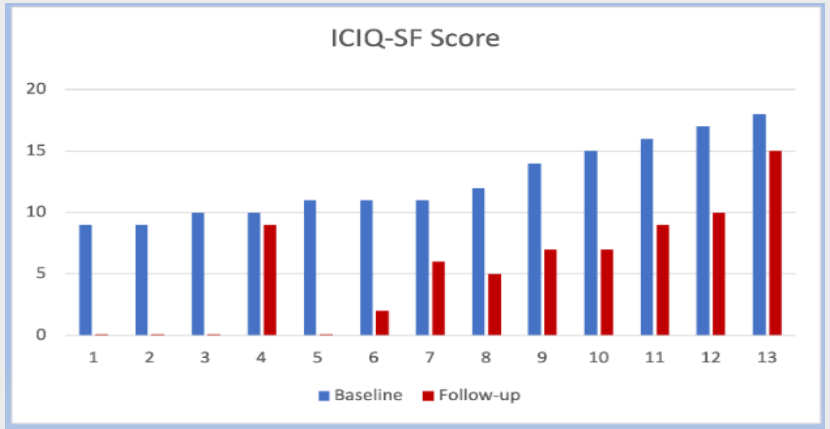
Introduction

Male stress urinary incontinence (SUI) is a prevalent complication following radical prostatectomy (RP). The incidence of SUI after RP varies and affects quality of life (QoL). In this study, we present our initial results regarding the efficacy and safety of the Adjustable Transobturator Male System (ATOMS) and its impact on QoL.

Patients/Methods

We retrospectively analyzed patients treated with the ATOMS device between October 2022 and January 2025. The primary indication for ATOMS implantation was persistent SUI lasting ≥12 months after RP. The devices were initially inflated with 9 ml of normal saline. The first evaluation was performed 4 weeks postoperatively, with the readjustment visit at 6 weeks if needed. We recorded patients' demographics, continent rate (CR), and pad use. The QoL was calculated using the International Consultation on Incontinence Questionnaire-Short Form (ICIQ-SF) and Patient Global Impression of Improvement (PGI-I). Informed consent was obtained from all patients.



Results

We included 13 patients, 9 with mild (1–2 pads/day) and 4 with moderate (3–5 pads/day) SUI after RP. Their median age was 61 years. For the patients with mild SUI, 4 patients were continent after the initial procedure and 4 after the readjustment. The remaining 1 patient, continued to experience mild SUI. For the moderate SUI group, one patient was continent after the initial procedure, 2 wore safe pads after the readjustment, and one was incontinent. The overall success rate was 84%, and the CR was 69%.

Pad use decreased from 2.5 pads/day to 0.5 pads/day ($p = 0.001$). The median score for ICIQ-SF at baseline was 11, which improved to 6 at the follow-up ($p = 0.005$). For PGI-I, the median score at baseline was 4, which improved to 2 at the follow-up ($p = 0.004$). The median hospital stay was 2 days, while the catheter was removed after 1 day. No significant complications were observed.

Conclusions

ATOMS is a safe and efficient procedure for treating mild and moderate incontinence, improving QoL in patients with SUI according to our study.