



#308 Using the Adjustable Transobturator Male System (ATOMS) as a novel treatment for men with stress urinary incontinence: The first experience in the United Kingdom

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INTRODUCTION

Stress Urinary Incontinence in men can be debilitating

- Most occur after radical prostatectomy
- Incidence range from 5 – 20%

Surgical management options include:

- Urethral bulking – efficacious only in mild incontinence
- Male slings – Does not allow easy adjustment of pressure post operatively
- Artificial Urinary Sphincter – more invasive operation and requires good manual dexterity from patient to allow urination

Adjustable Transobturator Male System (ATOMS®, A.M.I, Austria) is a hydraulic urethral compressive device in the form of a sling.

- Consists of port for post-operative pressurisation and four anchorages of the cushion.
- The cushion volume can be adjusted in the outpatient setting to achieve dryness via an injection

Here we present the outcomes on the first use of ATOMS in the treatment of male SUI in the United Kingdom.

METHODS

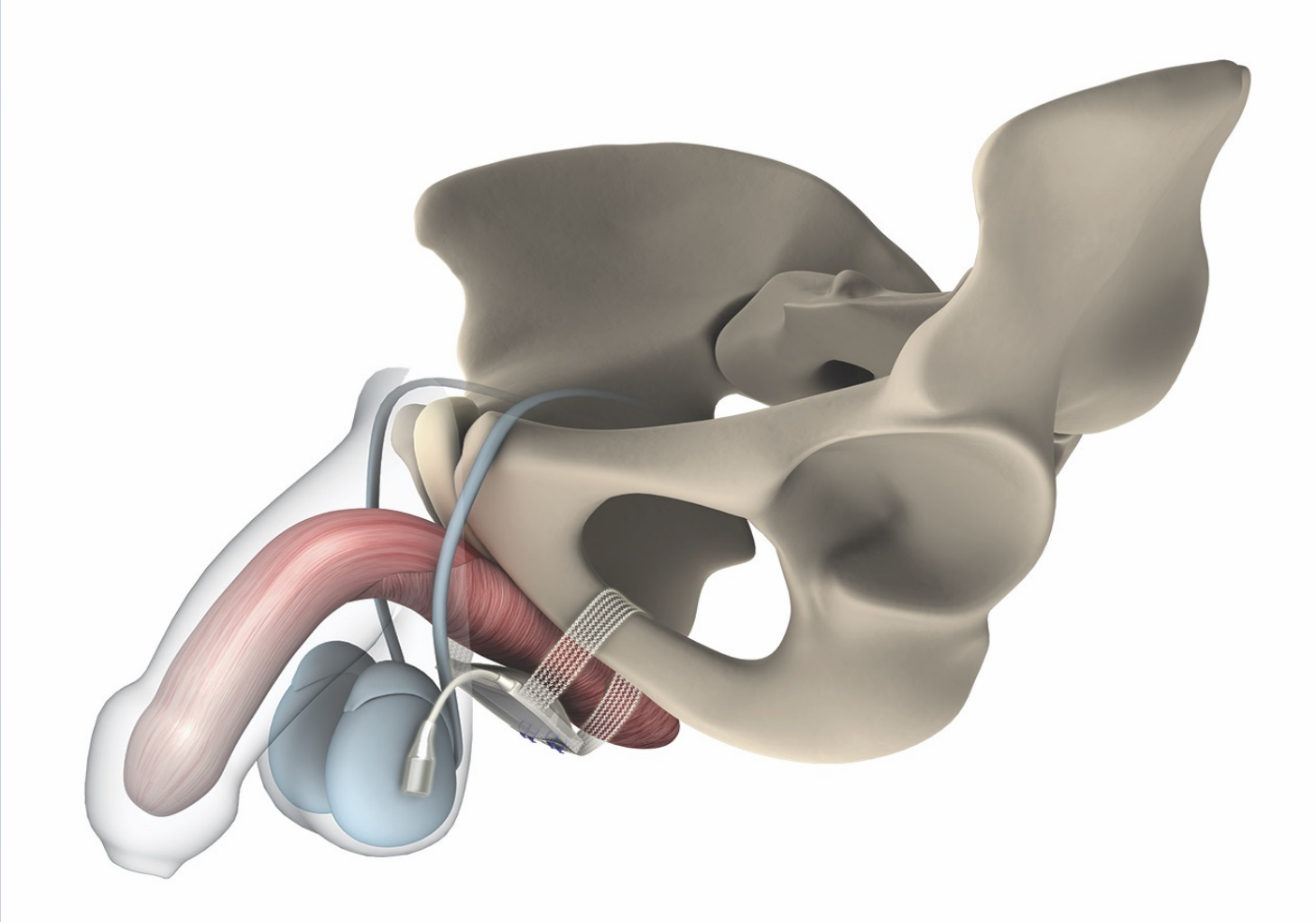
Between 2015 – 2021, men who underwent an insertion of ATOMS were followed up

SUI was diagnosed via their clinical symptoms

- Urodynamics was performed in patients who’s symptoms indicate concurrent detrusor overactivity
- Patients with mixed LUTS were excluded from this study

Operation technique

- Transperineal approach in lithotomy position with insertion of 16ch catheter
- ATOMS balloon cushion placed over bulbospongiosus muscle
- 2 securing arms each side tunneled around inferior pubic rami each side using provided TOT tunneller
- Scrotal component placed in left hemiscrotum
- Initial fill with 6mls



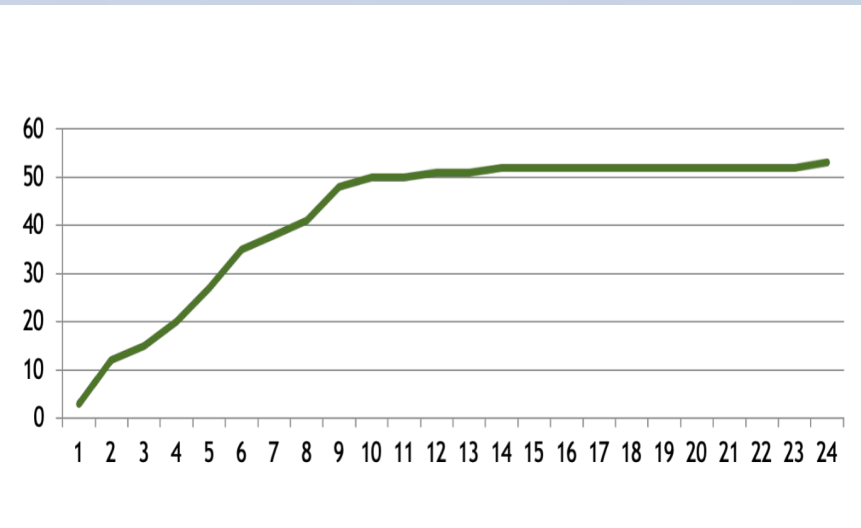
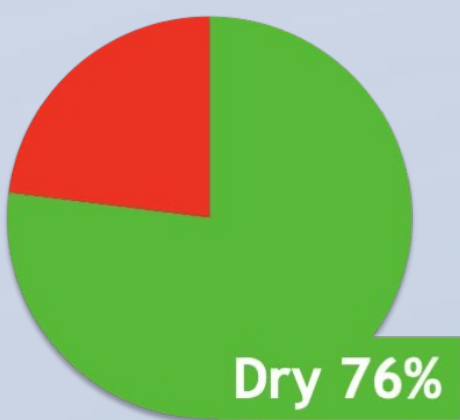
RESULTS

71 men recruited and followed up between 2015 – 2021

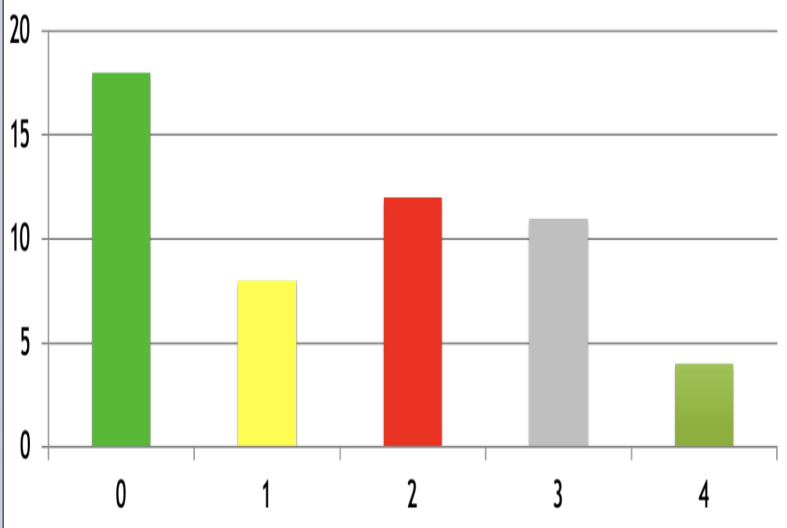
- Average age 70.3 (range 50 – 81)
- 94% had SUI due to RALP, 23% had previous radiotherapy post RALP
- 70 men successfully underwent ATOMS insertion
- 1 case abandoned due to high BMI

Follow up for **up to 6 years (mean 4, range 2 – 6)**

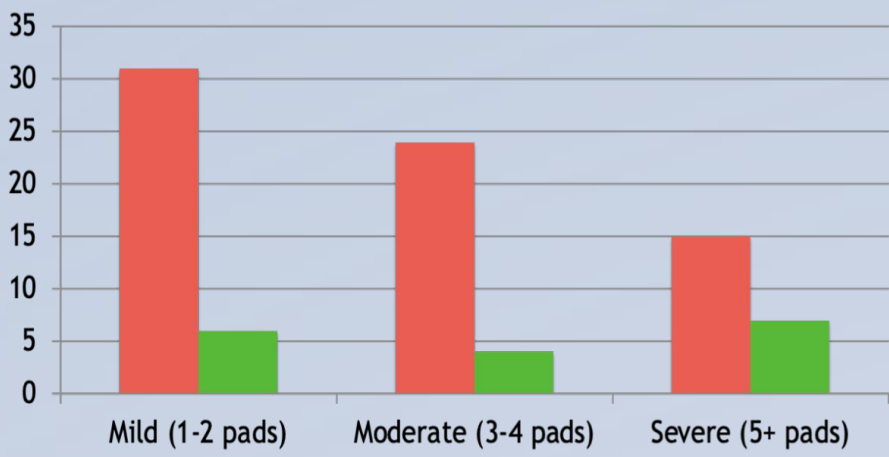
“Dry” was defined “using a maximum of one pad a day for reassurance only”.



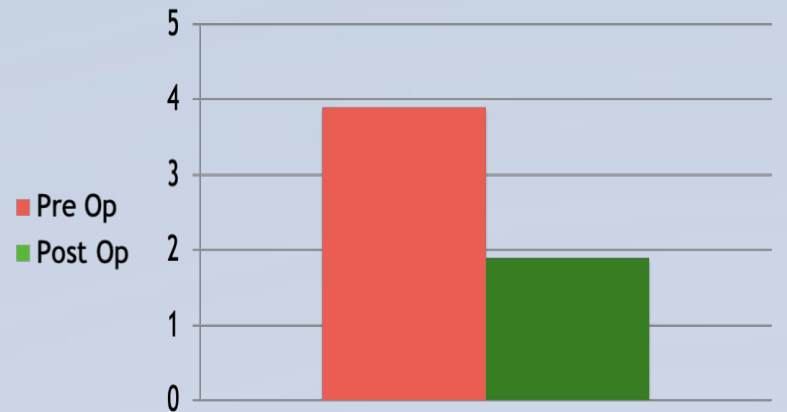
Number of dry patients (y-axis) per month (x axis) post ATOMS® insertion



Number of top ups required to achieve dryness



Stratification according to preoperative pad usage



Pad usage in “non dry” patients

COMPLICATIONS

Eleven (16%) complications overall, of which five devices required removal under general anaesthetics.

- 2 infected devices requiring removal under general anaesthetic
- 4 perineal/scrotal pain – 2 required an adjustment to decrease the balloon volume in order to relieve the symptoms and the other two patients required the removal of their ATOMS device.
- 1 had an erosion of the sub-urethral cushion mechanism out to the skin which required removal and re-implantation of a new device under general anaesthetic
- 1 had movement of the cushion mechanism requiring re-adjustment under general anaesthetics.
- 2 had urinary retention requiring temporary catheterisation and balloon volume adjustment
- 1 had a superficial wound infection which was treated successfully with oral antibiotics alone for 2 weeks.

There were no reported cases of any significant long term chronic pelvic pain that impacted the patient’s quality of life in this study cohort.

CONCLUSIONS

ATOMS appear to be an effective and safe treatment for men with SUI.

- The ‘dry’ state was in 76% of UK men, with 91% experiencing a drop in daily pad usage
- This is however less than the dry rates of up to 86% for the AUS

Success achieved in relatively short period post op – 64% achieved dryness within 6 months

- Majority (38/53) required 2 or less top ups
- Average balloon volume 13 mls (range 5 – 25mls)

Relatively low complication rate

- No reports of ongoing chronic pain or urethral erosion

Further long term studies required

- As well as to incorporate validated ICIQ-UI SF questionnaires into follow up protocol

Conflict of interest: BY has received reimbursement of study/conference expenses from CJ Medical
SF is an international trainer for ATOMS