#502 A prospective observational study of the efficacy and complications of stress urinary incontinence surgeries

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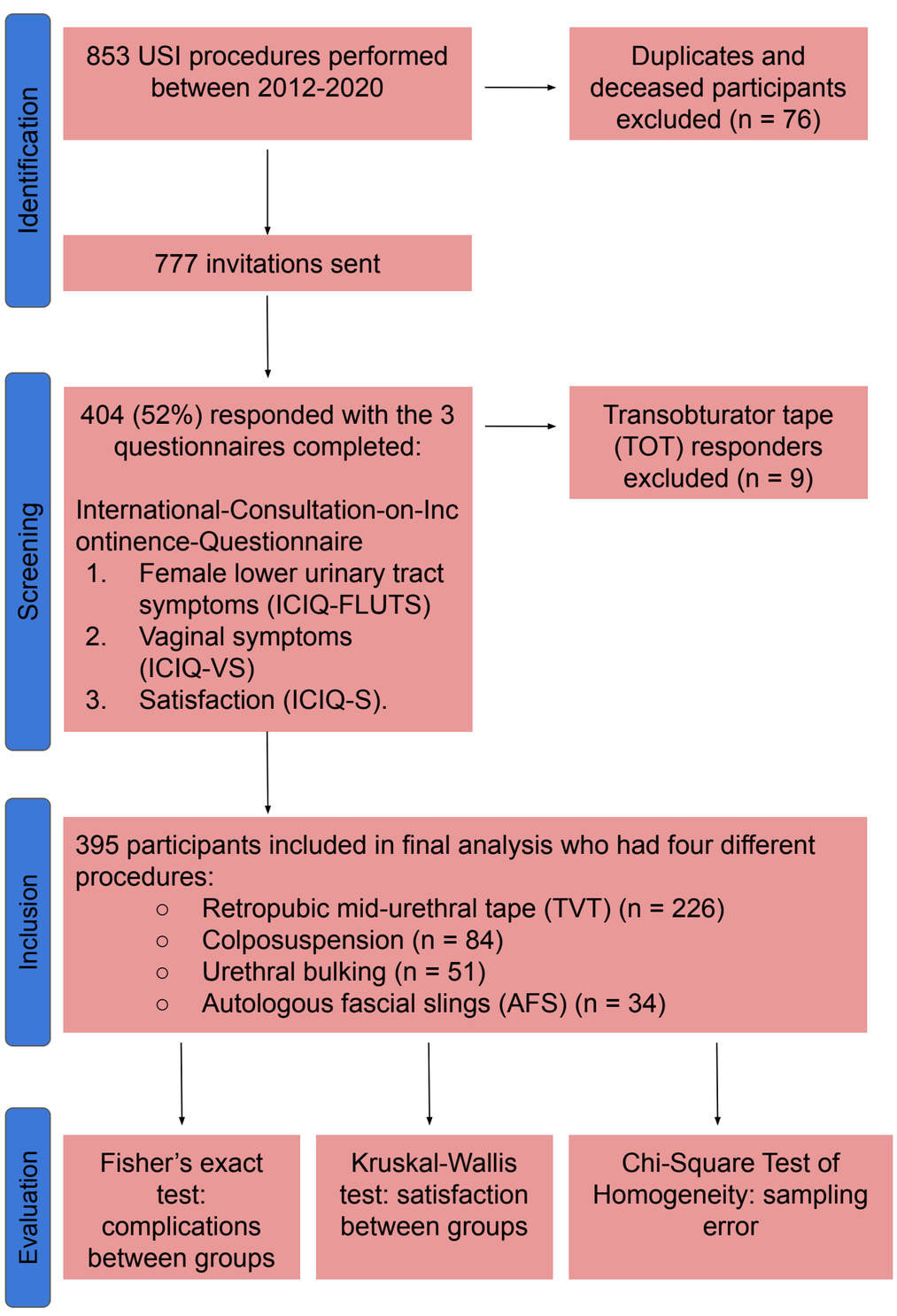
Introduction

- Urinary stress incontinence (USI) is the involuntary leakage of urine when abdominal pressures are increased through effort and physical exertion.
- USI can be managed conservatively, pharmacologically or through a variety of surgical procedures.
- A shared decision making process is vital when deciding which treatment option is the most appropriate.
- A prospective observational study of adult female patients who had surgery for USI between 2012-2020 was carried out to determine the best USI surgery.

Hypothesis/ Aims of the study

- We proposed the autologous fascial sling (AFS) is the best curative procedure for USI.
- Aimed to analyse the outcomes for four surgical procedures used in the treatment of USI, to determine the overall best procedure.
- Evaluating the four procedures':
  - Efficacy
  - Satisfaction
  - Global improvement
  - Pain

Study design, materials & methods



Mean follow-up of participants post-procedure was 5.9 years (range 1-10.1 years, SD +/- 2.5 years).

Results

Retropubic tape (TVT)			
ITEM	1. Efficacy	2. Satisfaction	3. Patient global impression of improvement
QUESTION	11a on ICIQ-FLUTS	1 on ICIQ-S	2 on ICIQ- S
Autologous fascial sling	0.999	0.635	0.251
Colposuspension	**<0.001**	0.068	0.282
Urethral bulking	**<0.001**	**<0.001**	**<0.001**
Autologous fascial sling (AFS)			
ITEM	1. Efficacy	2. Satisfaction	3. Patient global impression of improvement
QUESTION	11a on ICIQ-FLUTS	1 on ICIQ-S	2 on ICIQ- S
Colposuspension	0.070	0.759	0.086
Retropubic tape	0.999	0.635	0.251
Urethral bulking	**<0.001**	0.158	**<0.001**

Figure 1: efficacy, satisfaction and PGI-I. Numbers presented are the p-values, indicating group differences.

Question	Response	AFS	Colposuspension	TVT	Urethral bulking
11a on ICIQ-S How much pain are you experiencing now?	No pain	3.2	2.5	1.8	0.0
4a on ICIQ-FLUTS Do you have pain in your bladder?	No pain	67.7	77.4	80.1	72.5
2a on ICIQ-VS Are you aware of soreness in your vagina?	No pain	71.9	75.0	78.3	74.0

Figure 2: percentage of participants that responded with the answer no pain in regards to generalised, bladder and vagina pain post-procedure. No significance between the groups.

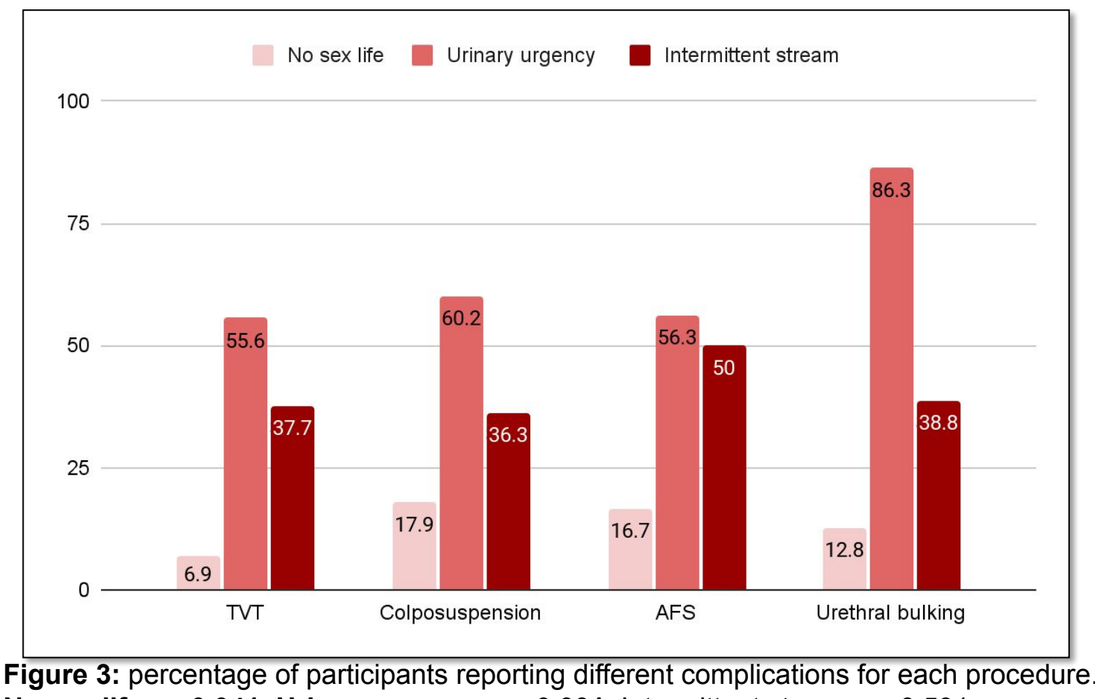


Figure 3: percentage of participants reporting different complications for each procedure. **No sex life, p=0.041. Urinary urgency, p<0.001.** Intermittent stream, p=0.591.

Interpretation of Results

- AFS and TVT procedures are the best procedures for the surgical management of USI.
- High percentage of patients reported severe pain which can be attributed to pain at other body sites; there is limited pain reported at the vagina and bladder, sites most affected by the procedures.
- Further research analysing the reports of generalised body pain following mid-urethral tape insertion is required to appraise the narrative of severe pain.

Concluding message

In the medium-term, AFS and TVT are the most efficacious and have the highest patient reported satisfaction for the cure of USI.

Pain was the most reported complication following surgery for USI, however, there was no significant difference between the groups in terms of vaginal or bladder pain.

Careful patient counselling of outcomes is required as well as long-term data at 10 and 20 years.

References

1. Nambiar AK, Arlandis S, Bø K, Cobussen-Boekhorst H, Costantini E, de Heide M et al. European association of Urology guidelines on the diagnosis and management of female non-neurogenic lower urinary tract symptoms: part 1: diagnostics, overactive bladder, stress urinary incontinence and mixed urinary incontinence. Eur Urol 2022 Jul;82(1):49-59.