



# 25883 - Characterization and Management of Female Urethral Stricture: A Retrospective Analysis of Symptoms, Imaging, Urodynamic Patterns, and Surgical Outcomes

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## Introduction

Female urethral stricture is rare and generally managed endoscopically. We have assessed the history, imaging and urodynamic and stricture characteristics of all women having urethroplasty for recurrent symptomatic FUS.

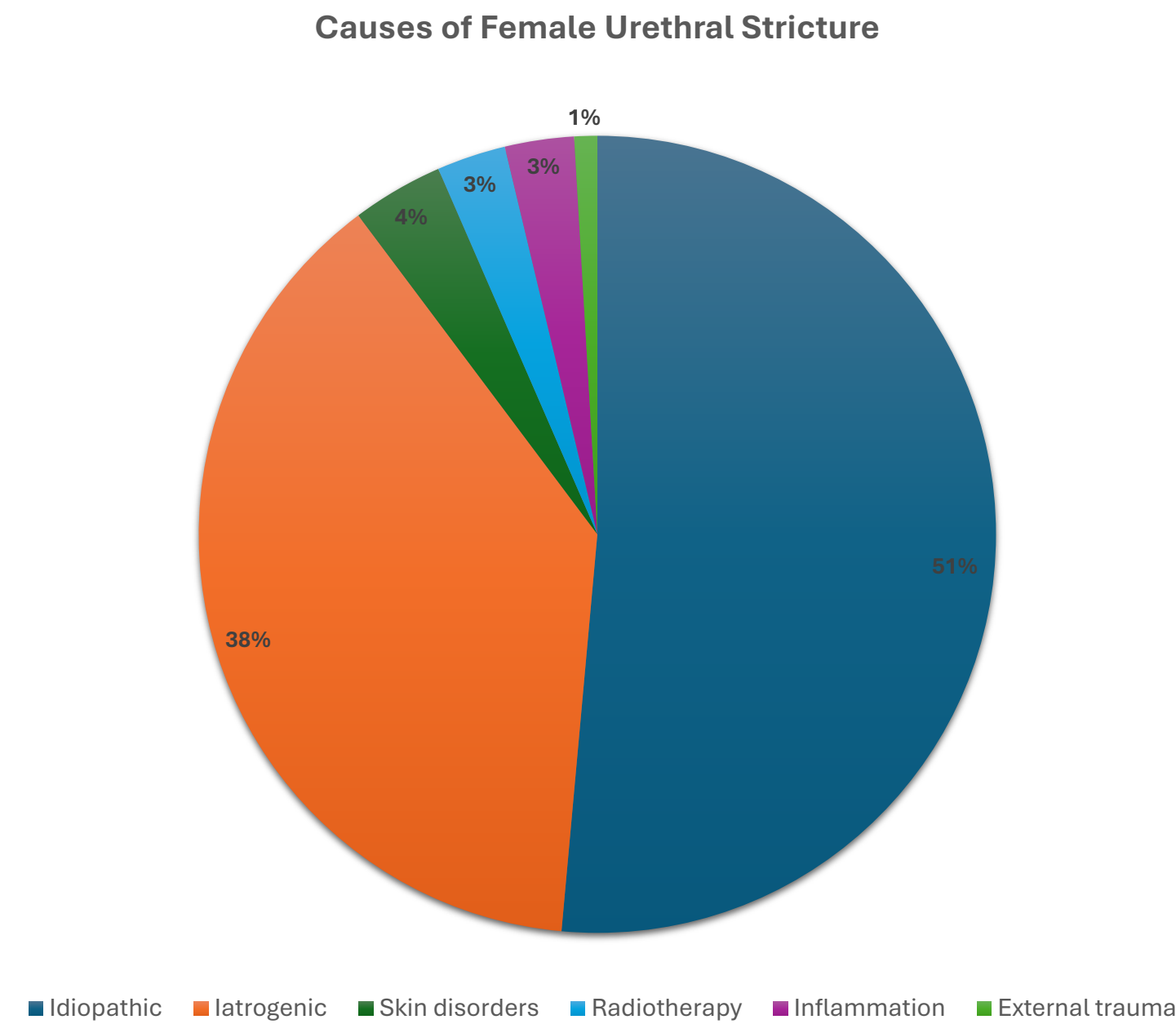
## Study design, materials and methods

- Study Design:** Retrospective review of 107 women (Median age: 50, range: 25-78) with recurrent or refractory FUS.
- Study Period:** Urethroplasty performed since June 2012 by 3 surgeons in 2 countries..
- Follow-up Period:** Median 31 months (range: 6-112 months).
- Data Analysis:** Stricture aetiology, symptoms, previous treatments, stricture characteristics, and type of urethroplasty.
- Statistical Tools:** Student's T-Test, Mann-Whitney U Test. **P-value** < 0.05 considered significant.

## Results

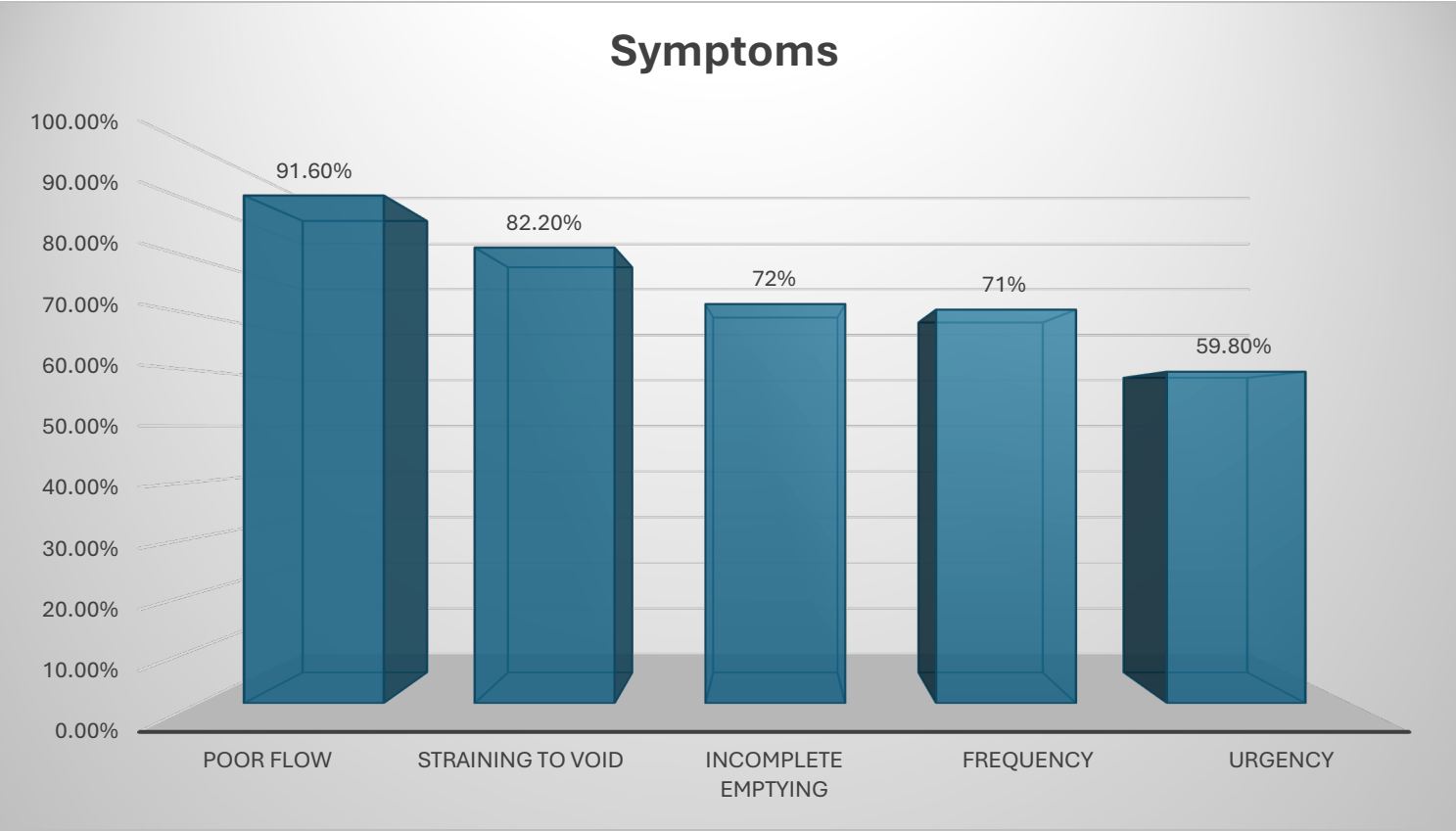
### Stricture Aetiology:

- Idiopathic:** 53 cases (51.4%)
- Iatrogenic:** 41 cases (38.3%)
- Other causes:** Skin disorders (3.7%), radiotherapy (2.8%), inflammation (2.8%), trauma (0.93%)



### Symptoms:

- Poor Flow:** 98 cases (91.6%)
- Straining to Void:** 88 cases (82.2%)
- Incomplete Emptying:** 77 cases (72%)
- Frequency:** 76 cases (71%)
- Urgency:** 64 cases (59.8%)



## Results

### Previous Treatments:

The women had had a median of 5 previous urethral dilatations (range 0-33). 50(46.7%) had been performing ISC for a median of 48 months (range 1-144) and 41(82%) found it painful. 4 (3.7%) had an SPC in situ.

### Pre-operative Investigations

#### MRI pelvis

- Concentric thickening: 70.8%
- Absent/fibrotic urethra: 9.7%
- Urethral diverticulum: 5.6%
- Paraurethral cysts: 1.4%
- Normal post-excision: 1.4%
- No abnormalities: 11.1%

#### Video urodynamics

Performed pre-operatively in 57(90%) and the findings were:

- BOO: 98%
- Detrusor overactivity: 39%
- Stress urinary incontinence: 12%
- Urodynamic Measurements:
  - Median Qmax: 5 mls/s (range 0-24)
  - Median Pdet Q max: 70 cmH2O (range 0-165)
  - Median Solomon-Greenwell BOOI: 51.4 (range -24.2-156.2)

Stricture Characteristics		
Stricture Site	Number of Cases	Percentage
Mid-distal	20	32%
Distal	19	30%
Median stricture length	2.0cm (range 0.5-4.0cm)	

### Surgical Treatment

Types of Urethroplasty:

- Ventral onlay buccal mucosal graft: 84%
- Ventral vaginal flap: 10%
- Ventral onlay labial minora flap: 3%
- Ventral vaginal graft: 1.5%
- Stricture-free status at last follow-up: 87%

## Conclusions

Poor flow secondary to urodynamic BOO is present in almost all women with FUS. The majority will also have irritative LUTS, recurrent UTIs and urethral pain. Definitive treatment with urethroplasty is significantly delayed whilst endoscopic management is possibly overused. FUS should be suspected in all women with poor flow and irritative LUTS and urethroplasty considered earlier.