



# Lower Urinary Tract Symptoms in Male-to-Female Transsexuals: Short Terms Results and Proposal of a New Questionnaire

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## BACKGROUND

Patient-reported experience is often used as a measure for quality of care, but no reports on patient satisfaction after male-to-female (MTF) sex reassignment surgery exist.

Lower urinary tract symptoms (LUTS) manifest multiple domains of clinical symptoms. LUTS can significantly reduce patients' quality of life (QoL) and may point to serious pathology of the urogenital tract.<sup>1</sup> The etiologies of LUTS in aged men are well understood, and guidelines suggest that its pathogenesis is multifactorial and can include one or several diagnoses.<sup>2</sup>

Although it is known that in MTF transsexuals, urethral stenosis, infections, disorders of the urinary stream, and incontinence have been reported,<sup>3-5</sup> little research effort has been devoted to

studying all the LUTS in this patient cohort, mainly in young men.

The aim of this study is to evaluate the surgical outcome in patients who underwent surgical sex reassignment (MTF), to investigate if they have an increased risk to develop micturition disorders with LUTS, and to assess their QoL including sexual concerns.

## METHODS

We conducted an observational study in an unselected cohort of 30 adult transsexuals who underwent MTF sex reassignment surgery between 2012 and 2014, in 2 hospitals by different surgeons.

We administered a new 21-question survey (before surgery and at 1, 3, 6, and 12 months follow-up) to investigate LUTS and their impact in patients' QoL (including sexual QoL).

The items we analyzed were involuntary urine leakage, urge and stress incontinence, frequency, stream alterations, straining to urinate, retention, presence of pelvic pain or discomfort (with or without the need of an analgesic therapy), and cystitis (with or without the need of an antibiotics therapy).

The reliability of the new questionnaire has been compared with the results obtained by other validated questionnaires.

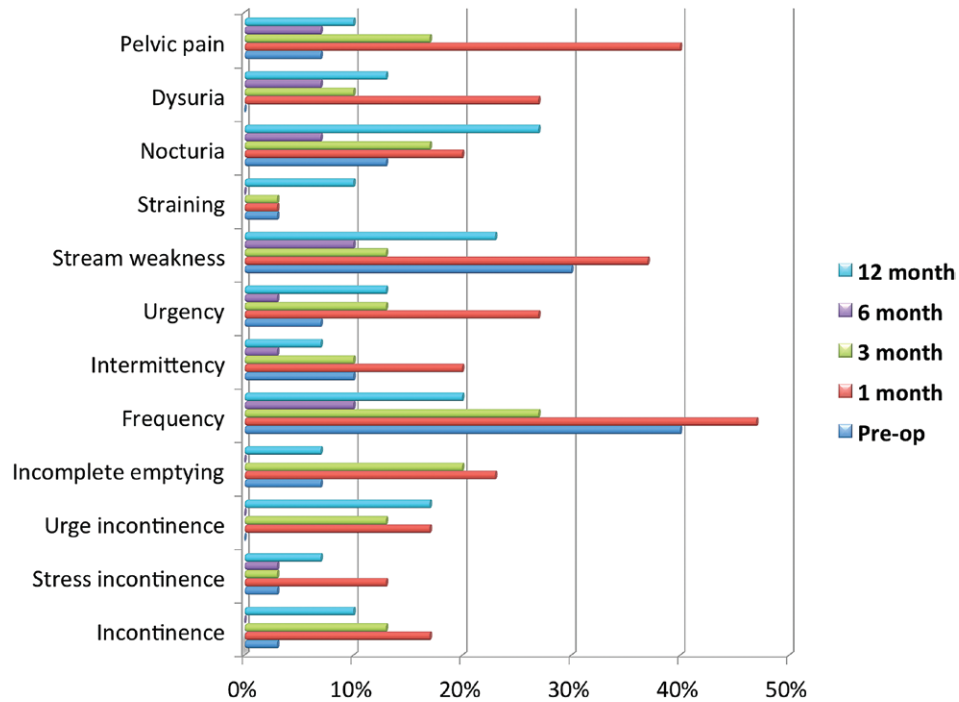
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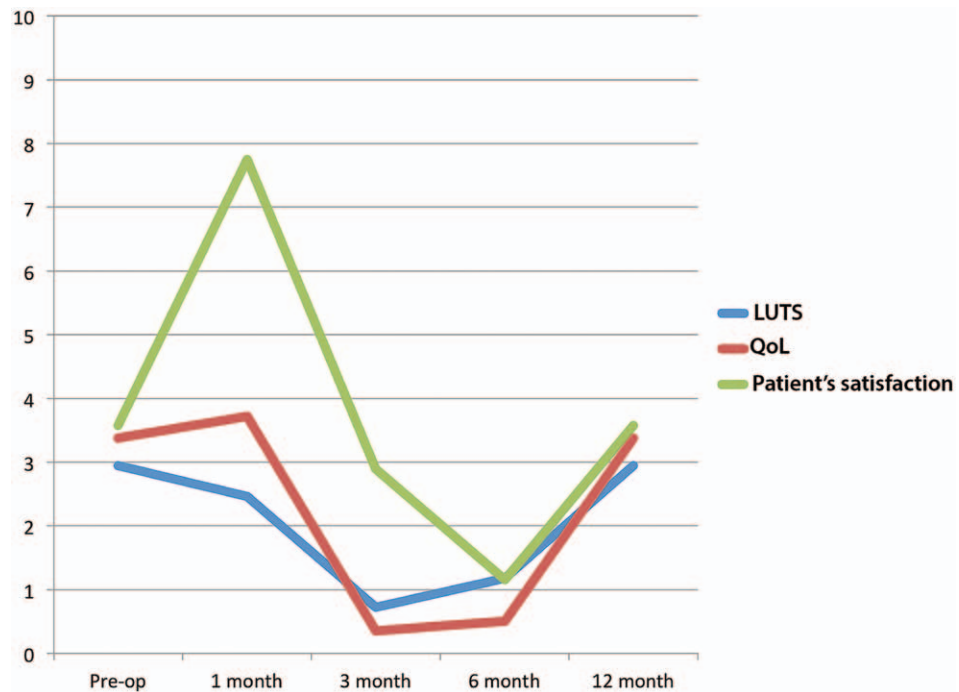
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**Fig. 1.** Frequency of LUTS: before surgery and during the follow-up at 1, 3, 6, and 12 months.



**Fig. 2.** Correspondence between averages: LUTS score, QoL score, and patient's satisfaction. Higher scores correspond to higher symptoms' manifestation and higher dissatisfaction.

**RESULTS**

In our cohort, frequency, weakness of the urinary stream, urge incontinence, and nocturia are common problems. Pelvic pain has been reported in 40% of patients in the first month but decreased significantly over time (Fig. 1).

Although more than half of the participants experienced one or more postoperative complications or discomfort, 19 patients (63%) were completely satisfied with their surgical outcome, 8 patients (27%) were slightly satisfied, and only 3 patients (10%) considered themselves as unhappy.

## CONCLUSIONS

Results showed an increased risk for the development of LUTS that should lead the surgeon to investigate the relationship between these disorders and the surgical procedure.

Micturition is a problem after surgery, and patients who consider sex reassignment should be informed about these side effects preoperatively.

The data obtained from the test phase of the questionnaire seem to be encouraging. A comparative analysis of the responses and the scores (Fig. 2) enabled us to establish, preliminarily, that the new questionnaire may be a reliable tool for the assessment of symptoms in patients who underwent MTF sex reassignment surgery, even if further investigations are still required.

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## REFERENCES

1. *The management of lower urinary tract symptoms in men; NICE Clinical Guidelines.* NICE Clinical Guideline Centre; London: Royal College of Physicians; 2010.
2. Oleic M, Bachmann S, Descazeaud S, et al. *Guidelines on the Management of Male Lower Urinary Tract Symptoms (LUTS), incl. Benign Prostatic Obstruction (BPO).* European Association of Urology; 2012.
3. van Noort DE, Nicolai JP. Comparison of two methods of vagina construction in transsexuals. *Plast Reconstr Surg.* 1993;91:1308–1315.
4. Fitzpatrick C, Swierzewski SJ 3rd, McGuire EJ. Periurethral collagen for urinary incontinence after gender reassignment surgery. *Urology.* 1993;42:458–460.
5. Cavadas PC, Landin L. Treatment of urethral stricture in a female-to-male transsexual with a tubulized flap from the labia minora. *J Reconstr Microsurg.* 2005;21:153–156.