

FULGURATION OF THE TRIGONE

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INTRODUCTION

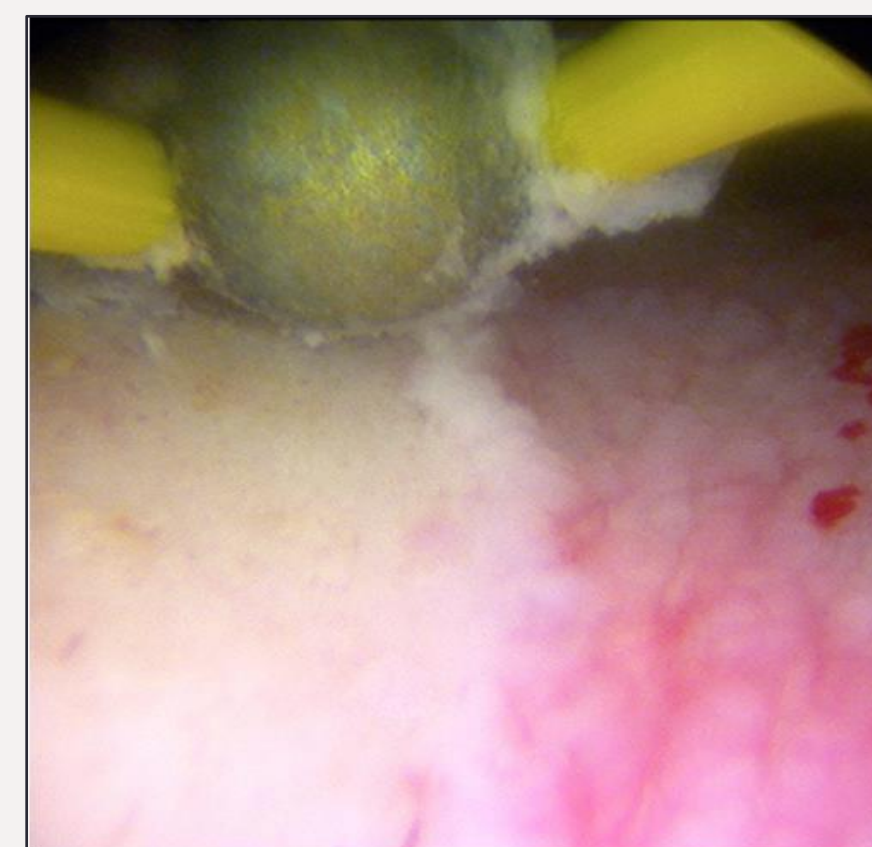
Recurrent urinary tract infections (RUTIs) have been associated with intracellular bacterial communities in the urinary tract. Research suggests that electrofulguration can destroy these bacterial reservoirs, and thereby reduce the incidence of RUTIs and avoid the side effects of long-term antibiotic prophylaxis.^{1,2}

AIM

To evaluate **Patient Reported Outcome Measures (PROMs)** on the long-term effectiveness of fulguration of the trigone in females with RUTIs and other irritative and painful bladder and urethral symptoms.

METHOD

Fulguration was performed with a roller ball at cutting and coagulation settings of 20/20. Most of the procedure was done with the cutting current.

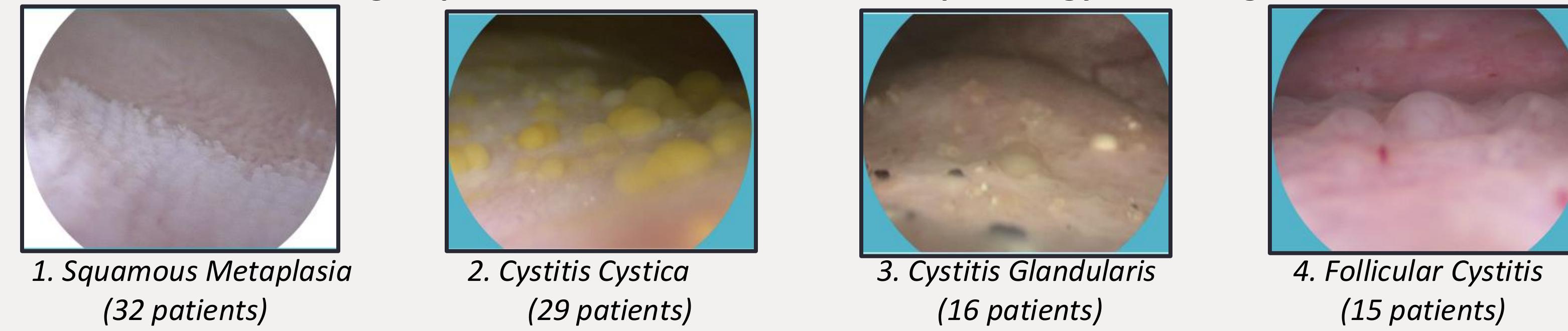


We conducted a retrospective study using SurveyMonkey to gather information from 150 patients who underwent fulguration of the trigone during a nine-year period from 2014 to 2023. A total of 92 women responded.

Nine of the 18 questions were based on the Patients Global Impression of Improvement Questionnaires (PGI-I). These compared the change in patients' symptoms before and after the procedure.

RESULTS

Four groups were identified based on the pathology of the trigone:



Questions were evaluated for each histological group and collectively for all 92 patients. Figures 1- 3 show the results of three out of the nine PGI-I questions for all 92 patients, compared to the results of 32 patients who had squamous metaplasia (Sq. Met.) of the trigone. The results of the other six PGI-I questions for all 92 patients are summarised in Table 1. Figure 4 highlights the difference in the percentage of patients experiencing more than three UTIs per year before and after treatment.

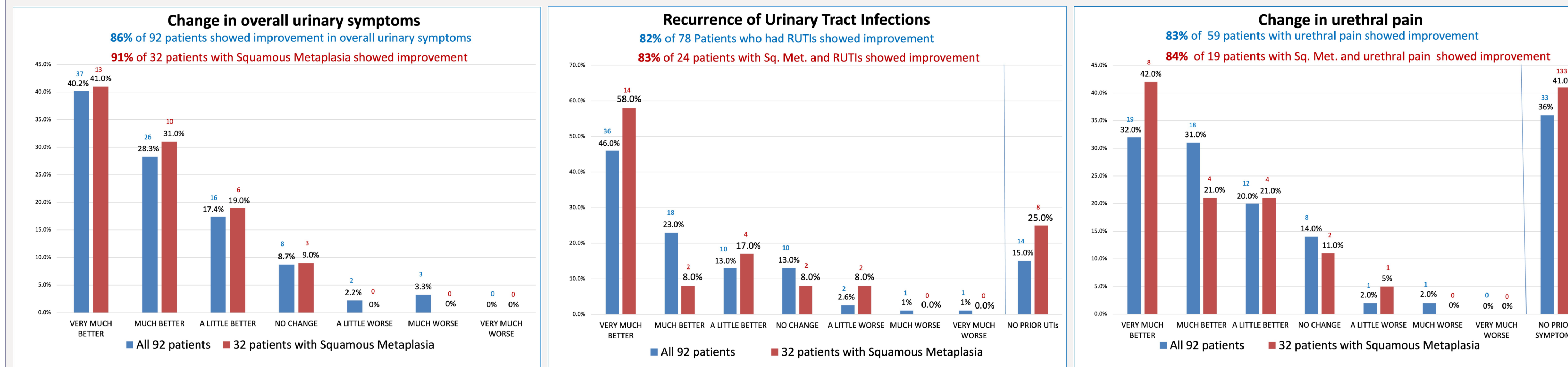


Fig. 1. Overall Urinary Symptoms

Fig. 2. Recurrence of UTIs

Fig. 3. Change in Urethral Pain

SYMPTOM	NUMBER OF PATIENTS IMPROVED	% OF PATIENTS IMPROVED
URINARY URGENCY	58 OF 74	78%
URINARY FREQUENCY	53 OF 71	74%
NOCTURIA	42 OF 71	59%
SLOW URINARY FLOW	39 OF 65	60%
INCOMPLETE BLADDER EMPTYING (feeling)	46 OF 66	69%
BLADDER PAIN	50 OF 63	79%

Table 1: Improvement in other urinary symptoms

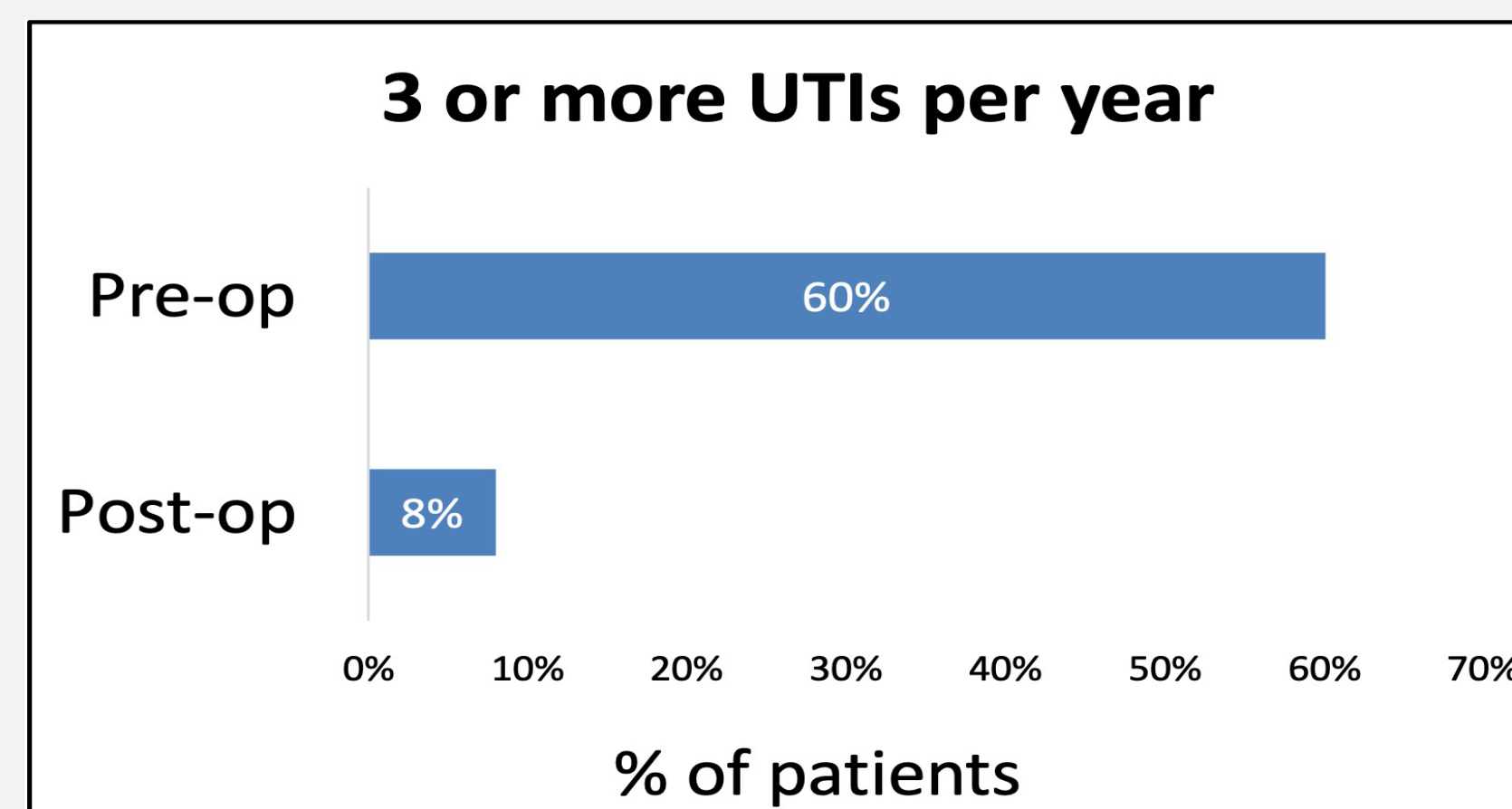


Fig.4. Change in UTIs per year

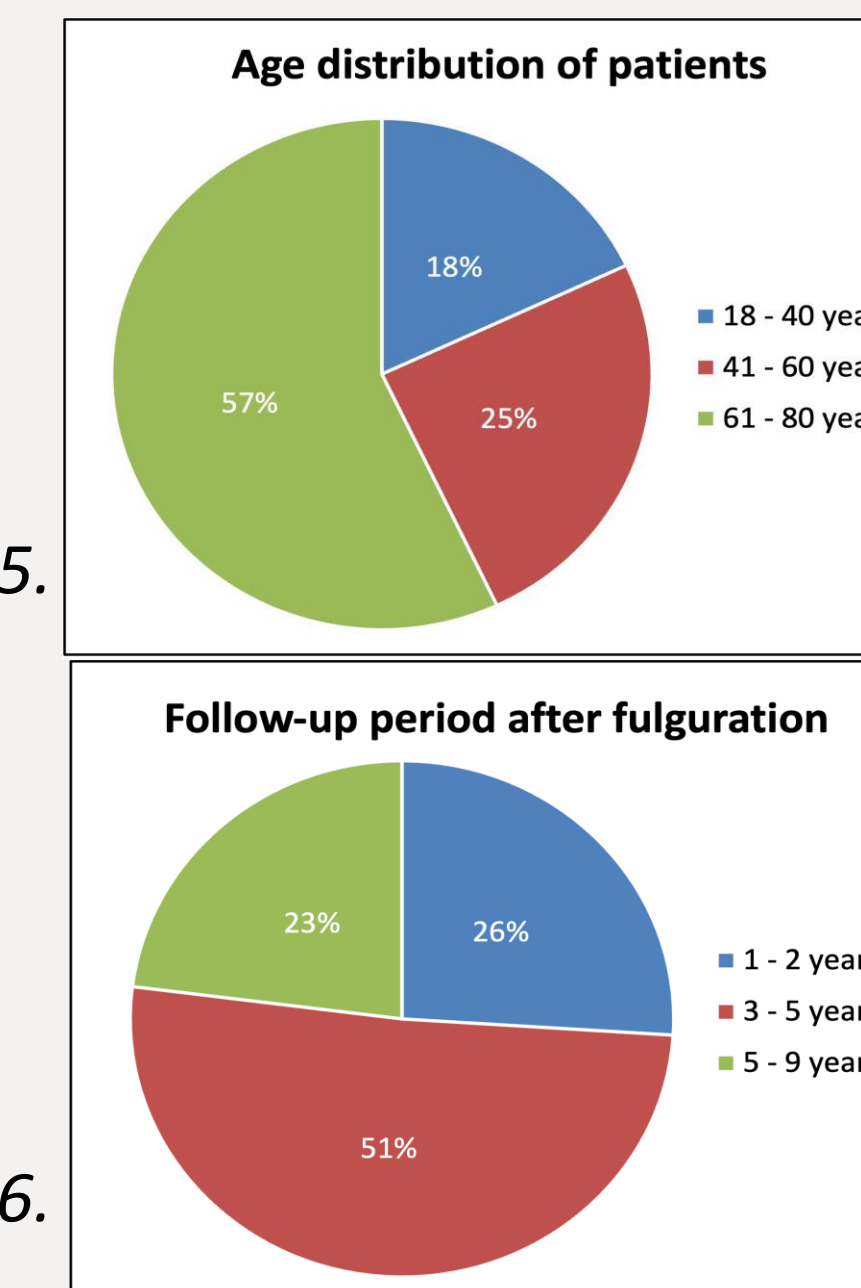


Fig. 5.

Fig. 6.

CONCLUSIONS

As the trigone is the most sensitive region of the bladder, any inflammatory process of the trigone can cause significant irritative urinary symptoms. Fulguration and removal of these inflammatory conditions lead to reconstitution with normal and more resistant urothelium, and significant reduction in symptoms.

Our study showed that fulguration of the trigone resulted in an **82%** reduction in recurrent UTIs and an **86%** improvement of overall urinary symptoms in all 92 women

Furthermore, fulguration of **squamous metaplasia of the trigone** resulted in a **91%** improvement of overall urinary symptoms.

ACKNOWLEDGEMENTS

- Late Mr. Roger Chambers, the first person to make me aware of the significant advantages of fulguration of the trigone.
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