

NON-ABLATIVE ERBIUM YAG LASER FOR THE TREATMENT OF TYPE III SUI (INTRINSIC SPHINCTER DEFICIENCY)

Hypothesis / aims of study

The objective of this case series study was to determine the safety and efficacy of a new non-ablative Erbium YAG laser procedure for the treatment of type III SUI (Intrinsic Sphincter Deficiency) in women.

Study design, materials and methods

22 patients (average age 57.9 (33-66) years) suffering from type III SUI (ISD) with a VLPP less than 60 cm H₂O were recruited for the so called Incontinase Intra treatment using a non-ablative Erbium laser delivered inside the whole length of the urethra through an 8 French cannula, specially designed. Patients received 2 treatments with 3 weeks interval between the sessions. Therapy efficacy was measured using ICIQ-UI SF score for assessing the severity and degree of incontinence and its impact on the quality of life, and standardized 1-hour pad test to measure the objective improvement. Follow-ups were at 3 months and 6 months after the therapy.

Results

At three months follow-up 63.6% of the patients (14) were considered themselves cured according to the ICIQ-UI score and after six months 45.5% of them (10). 18.2% (4) at three months and 22.7% (5) at six months, achieved a significant improvement in the ICIQ-UI diminishing one stage in the severity of the SUI. The failure rate was 18.2% (4) at 3 months and 31.8% (7) at six months. 14 patients showed an objective improvement in the 1-hour pad test evaluation at three months and 10 patients at six months follow-up, evidenced by the decrease of the weight of the pads after the treatment. All patients tolerated the therapy well and adverse effects were mild and transient: pelvic pain 4.5% (1), dysuria 9.1% (2) which disappeared in the next 24 hours after the procedure.

Interpretation of results

Results of this study showed significant improvement of stress urinary incontinence caused by the intrinsic sphincter deficiency (type III SUI). Both assessment tools (ICIQ-UI and 1 hour pad test) had shown similar success rate.

Concluding message

Although this is a phase one study with a small number of patients and short follow-up, this non-ablative Er:YAG laser procedure seems to be a safe and efficacious alternative for patients with type III SUI. Nevertheless more controlled studies should be performed to confirm this data and to evaluate the long term effects after performing more sessions of this novel procedure.

Table 1: Results of ICIQ-UI questionnaire

	3 months n = 22 (%)	6 months n = 22 (%)
Cured	14 (63.6)	10 (45.5)
Improved	4 (18.2)	5 (22.7)
No improvement	4 (18.2)	7 (31.8)

Disclosures

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