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Authors: M. Meschia, M. Spennacchio, P. Pifarotti, U. Gattei, P. Cavoretto, S. Stoppelli.
Institution: Urogynecology Unit Dept. Obstetrics and Gynecology, University of Milan
Title: TRANSURETHRAL INJECTION OF SILICONE MICROIMPLANTS IN THE MANAGEMENT OF INTRINSIC SPHINCTER DEFICIENCY

Aims:

To assess the mid-term efficacy of trans-urethral injection of silicone micro-implants (Macroplastique®) in women with type III stress urinary incontinence.

Methods:

Between June 1998 and March 2000, 33 women (mean age 69 years, range 51-86) with type III stress incontinence underwent transurethral injection of Macroplastique® under local anesthesia. Twenty-seven had undergone previous continence surgery. Pre-operative evaluation revealed, in all subjects, a low urethral closure pressure (≤ 20 cm H₂O) with a mean value of 16 ± 4 (range 8-20), during urodynamic assessment, and urethral hypo-mobility with a mean Q-Tip angle from the horizontal of 10 degrees (range 0-20). Preoperatively eighteen patients (55%) referred symptoms of urgency and urge incontinence. Bladder instability was demonstrated in only 3 subjects. Macroplastique® was implanted into the urethra sub-mucosa at six, ten and two o'clock position and the total amount of material used for each treatment was 5 ml. The outcome of treatment was estimated both subjectively and objectively at 3, 6, 12, and 24 months. Women were classified as cured, improved or unchanged. Objective cure was defined as no urine loss while performing the cough provocation test, in supine position, with ≈ 300 ml of saline solution in the bladder

Results:

the median follow-up period was 23 months (range 12-33). The rates of subjective cure/improvement, at different time, are shown in the table.

Time	3 months	6 months	1 year	2 years
N° patients	33	33	33	25
Cured	15 (45%)	12 (36%)	9 (27%)	8 (32%)
Improved	9 (27%)	11 (33%)	12 (36%)	7 (28%)
Unchanged	9 (27%)	10 (30%)	12 (36%)	10 (40%)

The objective cure rate was 38%; 30%; 27%; and 32% respectively. Three patients underwent a second injection after 6 months from the primary procedure. One of them reported a significant improvement. After surgery, symptoms of urgency and urge incontinence were referred, de novo, by 3 subjects without any sign of bladder instability.

None of the patients had urinary retention lasting more than 48 hours and only 3 of them had a transient hematuria post-operatively.

Conclusions:

transurethral injections of Macroplastique® may be useful in the treatment of intrinsic sphincter deficiency, especially in elderly patients who had undergone several previous anti-incontinence procedures [1,2,3]. In these cases, cure is not always possible, however, a substantial improvement of the condition in about 60% of patients after two years, contribute to improve women's quality of life.

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