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EARLY RESULTS WITH THE MODIFIED PERIURETHRAL INJECTION OF DURASPHERE

Aims of Study
Durasphere is a newly approved injectable agent for the treatment of stress urinary incontinence. Proved and potential advantages include non-immunogenicity, tissue non-reactivity, efficacy at low injectable volume, and long durability. One of the concerns regarding the use of Durasphere is the difficulty involved with its application. A modified technique for easier implantation of Durasphere is described and early results are reported.

Methods
The surgical technique follows the standard transurethral bulking agent implantation. Steps modified to allow easier implantation of the Durasphere beads include: 1) A single needle stick at the 4 o'clock position. 2) Hydrostatic dissection with 1.5 mL of 1% lidocaine into the submucosa. 3) Gradual withdrawal / advancement or rotation of the needle tip once resistance is encountered, and 4) Holding the needle in position for additional 10 seconds once proper coaptation is achieved to prevent beads from pouring back. Patients' charts were retrospectively analyzed. The responses to validated questionnaires including the urinary distress inventory (UDI-6), and the Groutz-Blaivas score, and a 24-hour pad test were analyzed.

Results
46 out of 70 patients (65.7%) for whom full contact information was available responded. Patients' age ranged 46-83 years (mean 69.4). History of failed prior anti-incontinence procedure was recorded in 15 patients (32.6%), and coexisting symptoms of urge incontinence or urodynamically proven detrusor instability was evidenced in 29 (63%) and 5 patients (10.8%), respectively. Excellent or good coaptation was achieved in 92% of injections. With a follow up time of up to 18 month (mean 9.4 m.s), 6 (13%), 24 (52.2%), and 16 (34.7%) patients considered themselves cured, improved, or failures of the treatment. Of the 36 patients who completed a 24 hours pad test, 18 (50%), 2 (5.5%) and 16 (44.4%) patients had a urine loss of ≤8 gm.s, 9-20 gm.s, and >20 gm.s, respectively. Other outcome data according to UDI-6 and the Groutz-Blaivas score will be discussed at the time of presentation.

Conclusions
The modified technique of Durasphere injection allows easy implantation with good coaptation in the great majority of patients. Early results are encouraging especially considering the complex urologic history of our patient population. Further research will reveal whether the improved delivery techniques can be translated into procedure outcomes more durable than with the use of other approved bulking agents.