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INJECTABLE SILICONE BIOMATERIAL FOR FECAL INCONTINENCE DUE TO INTERNAL SPHINCTER DYSFUNCTION

Hypothesis / aims of study

A prospective study of endoanal ultrasound-guided injection of silicone biomaterial (PTQ™) to treat passive fecal incontinence due to a weak or disrupted internal anal sphincter; in a cohort of patients with combined urinary and fecal incontinence.

Study design, materials and methods

Thirty six women (median age 57 yrs) were treated with injectable silicone biomaterial into inter-sphincteric space guided by endoanal ultrasound. All women had symptoms of pelvic floor dysfunction including urinary incontinence and/or prolapse and faecal incontinence. All were performed as a day case with mild sedation. Anorectal physiologic studies, endoanal ultrasound, a validated incontinence score (Wexner's continence score) and quality of life questionnaires (SF-12, FIQL) were completed before treatment and during follow up.[1-3] 21 (58 %) patients had a prolonged pudendal nerve terminal motor latency.

Results

There were no septic complications. Fecal continence was significantly improved one month after injection, but continued to improve significantly up to 12 months ($p < 0.001$). At 12 months post-injection, 69 % of patients achieved greater than 50 percent improvement in Wexner's continence score; ($p < 0.01$). At 12 months follow up, all domains of the fecal incontinence quality of life scale and global quality of life scores improved significantly. There was also significant improvement in maximum resting anal pressure. A prolonged PNTML had no effect on functional outcome.

Interpretation of results

Women with pelvic floor dysfunction often present with a combination of symptoms. With a multidiscipline approach, they will often undergo combined surgery with a urogynaecologist and colorectal surgeon. With this new minimally invasive technique however the internal sphincter dysfunction may be performed separately due to the simplicity of the technique.

Endoanal ultrasound guided injection of silicone biomaterial is a safe technique which can be performed as a day case procedure. In this cohort of patients with internal anal sphincter disruption, significant improvements in the subjective continence scores and objective ano rectal physiology was found after treatment.

Concluding message

Endoanal ultrasound-guided injection of silicone biomaterial provided a sustained improvement in fecal continence and quality of life in patients with internal sphincter dysfunction, even if pudendal neuropathy was present.

Reference

1. Etiology and management of fecal incontinence. *Dis Colon Rectum* 1993;36:77-97.
2. A 12-item short form health survey: construction of scales and preliminary tests of reliability and validity. *Med Care* 1996;34:220-33.
3. Fecal incontinence quality of life scale: quality of life instrument for patients with fecal incontinence. *Dis Colon Rectum* 2000;43:9-16.