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AN AUDIT OF PERIURETHRAL SILICON POLYMER (MACROPLATIQUE) IN THE TREATMENT OF MIXED AND GENUINE STRESS INCONTINENCE IN WOMEN FOLLOWING BLADDER NECK SURGERY

Aims of study

To audit the effectiveness of periurethral injection of a silicon polymer (Macroplastique) as a treatment for women with recurrent incontinence after previous bladder neck surgery.

Methods

Retrospective review of the casenotes of 28 women who were treated with periurethral Macroplastique as a secondary treatment for genuine stress incontinence or mixed incontinence Preoperative assessment included pad test, uroflowmetry and dual channel subtraction cystometry, together with a structured history which included a 10 cm visual analogue scale for global severity of symptoms. Patients were operated on by one consultant (DHR) or by trainees under his direct supervision. Routine catheterisation was not performed and most patients were discharged after an overnight stay. Casenotes were examined for details of postoperative complications, and to extract details of subjective improvement, the need for further intervention and other data. Results were compared by t-test for normally distributed data and by Mann Whitney U test or Chi square test for non-parametric data. Significance was set at 5% and the results are presented as mean (SD) or median (range).

Results

28 women who had received Macroplastique injections were included in the study The mean age of patients was 60 (SD 12 5) and the median duration of symptoms was 8 years (range 1-27). 12 patients (42.8%) had undergone Burch colposuspension, and 16 (57.2%) had undergone anterior repair alone or with a vaginal hysterectomy. 22 (79%) patients had genuine stress incontinence, 5 (18%) had mixed GSI and detrusor instability and 1 patient (3%) did not have cystometry. 21 patients were treated by the consultant and 5 by the registrar. The severity of symptoms was reported as severe (VAS>6) in 16 women, moderate (VAS 4-6) in 9 and mild (VAS<4) in 1. Following treatment the frequencies were. severe in 6, moderate in 7, mild in 10, and 3 women were continent This change in distribution was significant ($p<0.01$). 16 patients (57%) improved, 10 (36%) were unchanged and there were no data for 2 patients (7%) The degree of improvement was unrelated to pretreatment pad loss, duration of symptoms, patient age or grade of surgeon. 21 patients (75%) were discharged within 1 day of surgery, 24 (85%) within 3 days and 26 (92%) within 5 days. 6 patients (27%) required short term catheterisation for voiding dysfunction and 4 (18%) developed postoperative urinary tract infection. Of the patients catheterised, 6 (100%) reported subsequent symptomatic improvement, compared to 10 (47.6%) of those who did not ($p<0.05$, Chi square). At follow up, 8 patients (28 5%) had required more surgical intervention , 4 repeat periurethral injections, and 4 formal bladder neck suspension procedures.

Conclusions

These results demonstrate the effectiveness of periurethral silicon implants (Macroplastique) in a group of women with persistent or recurrent incontinence after previous bladder neck surgery. In this group of difficult patients, almost two thirds of patients obtained some improvement in their symptoms and the continence rate was 10%. The preoperative diagnosis did not modify the effectiveness of the treatment. The only factor affecting outcome was the occurrence of postoperative voiding dysfunction requiring catheterisation, which was associated with 100% improvement. This suggests that the mode of action of the implants is at least partly due to an increase in the urethral opening pressure. Thus, Macroplastique is a moderately effective treatment of patients with mixed or genuine stress incontinence following bladder neck surgery and has a low morbidity