

findings to conclude all women undergoing prolapse surgery must undergo an incontinence procedure concomitantly.

Methods: Records of 205 women who underwent Abdominal Sacrocolpopexy (ASC) by 8 surgeons during the time period 2005–2007, inclusive, in 5 university and private practice Urogynecology clinics, were identified through billing records and reviewed. Baseline demographics, pre-operative (pre-op) history and physical examination, pre-op urodynamics results, operative procedure, 6 week post op visit, and the last recorded visit for the patient at each clinic were recorded and analyzed.

Results: The mean age of women who underwent ASC during the study period was 60.9 (35–89). Pre-op urodynamics confirmed stress incontinence in 83 women, 13 of whom were diagnosed with occult or potential stress incontinence. Sixty women underwent midurethral sling & 24 women underwent a Burch procedure.

At the 6 week visit, 23 (11.2%) of the 205 women reported any incontinence: 36 had undergone and anti-incontinence procedure (21 had RPU, 15 had sling) and 12 had no incontinence procedure. Thirty-five women (17%) reported any urgency and/or frequency: 13 (37%) of these patients had pre-op detrusor overactivity (DO), 20 (57%) had sling or RPU, and 15 had no incontinence procedure. Six women had residual urine of >100 ml at 6 week follow-up.

Mid-term follow up was available for 147 women with mean follow-up (f/u) of 41.5 weeks (range 8–96). At mid-term f/u, 21 women (14.2%) reported any incontinence: 10 had an RPU or sling and 11 had no incontinence procedure. Twenty-eight women (19%) reported any urgency-frequency post -op compared to 55 women (27%) pre op. Of the women with urgency/frequency: 16 had pre-op DO, 14 had an RPU or sling & 14 had no incontinence procedure. Overall only 6 (3%) of women had incontinence severe enough to request further treatment. Four women had an interval midurethral sling, 1 scheduled a periurethral bulking injection, 1 interstim was scheduled for severe DO and 1 requested treatment for persistent nocturia.

There were 70 women who did not demonstrate Urodynamic Stress Incontinence or occult stress incontinence pre-operatively and who did not receive an incontinence procedure at the time of ASC. At the 6 week visit, 4 of these women demonstrated any symptoms of incontinence. Of these 70 women, 58 have had a mid-term follow up visit. At this interval, 4 women had any complaint of incontinence.

Conclusions: Using urodynamic evaluation of lower urinary tract function to determine whether or not to perform an incontinence procedure at the time of ASC appears to be a highly effective approach. Blindly performing incontinence

procedures at the time of all prolapse surgeries is not supported by our data.

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Perigee versus Anterior Prolift in the treatment of Cystocele

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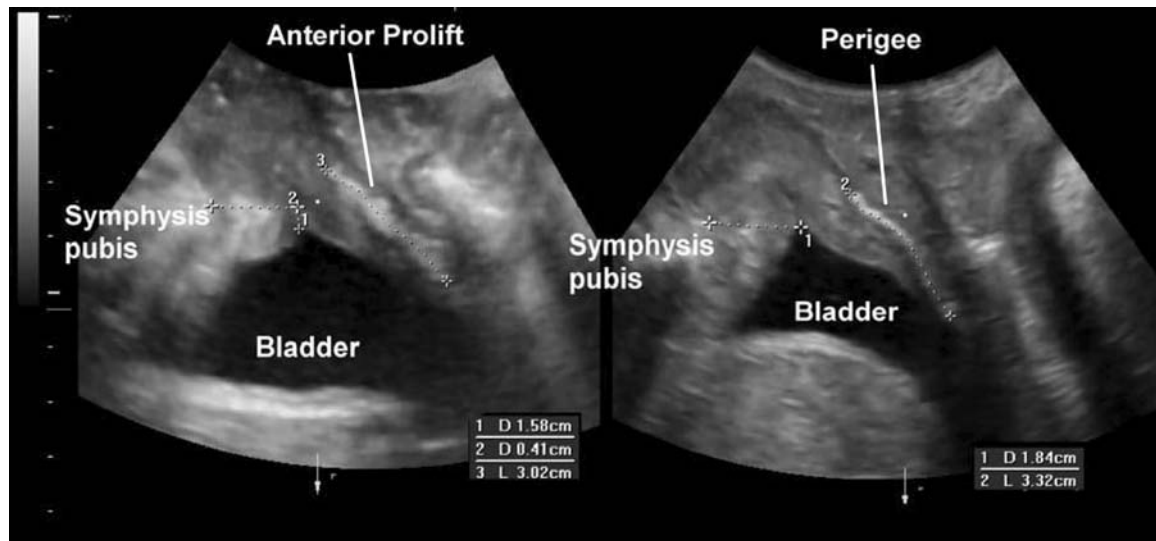
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Aims: The aim of this study was to compare the medium-term clinical outcomes and ultrasound findings of 2 commonly used mesh techniques, using data obtained in surgical audit projects.

Background: In recent years, there has been growing interest in the use of transobturator polypropylene mesh in cystocele repair, especially for large and recurrent cystocele. Short term data suggest that anterior compartment mesh repair is safe and effective, but to our knowledge there have been no studies to date comparing the different methods currently in use.

Methods: 103 patients were seen in the context of surgical audits after Perigee TM (PE) or Prolift TM (PR) trans-obturator mesh repair at three urogynaecological units. The assessment included a standardized interview, clinical examination for prolapse grading and 3D translabial ultrasound performed supine position after voiding. Matching of groups required the removal of 8 datasets. The resulting groups (30 PR and 65 PE) were well matched for duration of follow-up (0.65 vs. 0.71 yrs), age (60 vs 63 years) and vaginal parity (2.4 vs 2.9), previous hysterectomy (43% vs 49%) and previous anterior repair (13% vs 29%).

Results: There were no statistically significant differences between groups for satisfaction rate (67% vs. 75%), subjective cure/ improvement (97% vs. 91%), and significant cystocele (Stage 2+, 10% vs. 12%). The point Ba was on average at -1.83 (SD 1.12) in the PR group and -1.45 (SD 1.21) in the PE group (P=0.14). More women in the PE group described recurrent prolapse symptoms (28% vs. 10%, P=0.053), but this did not reach significance. There were no differences in erosion rate (4/65 vs. 1/30). Bladder neck descent was similar (23.5 vs. 25.2 mm, as was the lowest point reached by the bladder on ultrasound (-0.2 vs. -0.7 mm). Total mesh width was also similar (26 vs. 23 mm). The gap between pubis and mesh seemed to be wider after Prolift (24 vs 21 mm, P=0.052), although this result did not reach significance. The figure shows typical ultrasound findings after Perigee and Anterior Prolift mesh repair.



Conclusions: In this comparative series, no significant differences were found between Perigee and Anterior Prolift in terms of subjective and objective clinical outcomes and ultrasound findings, although there were trends towards more prolapse symptoms in the Perigee group and a larger pubis- mesh gap in the Prolift arm. Our findings may serve as pilot data for future randomised controlled trials.

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Genetic and Environmental Influences on Stress Urinary Incontinence: Results of a Large Population-Based Classical Twin Study

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Industry Support: No

Objective: To explore the extent to which genetic and environmental factors influence the development of stress urinary incontinence (SUI).

Background: Whereas prior studies have hypothesized that SUI is multifactorial in nature and explained by both environmental and genetic factors, the aim of this study is to use a classical twin analyses to investigate the relative contributions of genetic and environmental influences in a large community based sample of monozygotic (MZ) and dizygotic (DZ) twins.

Method: Structural equation models (SEM) were fitted to data obtained from surveys collected from 751 twin sister pairs (n=1502) with 652 MZ pairs and 99 DZ pairs, obtained from the world's largest annual gathering of twins held at the Twins Days Festival in Twinsburg, Ohio from 2003–2007. SEM, also known as covariance modeling, is a

general approach for the analysis of variance, correlations and heritability. MX software was utilized for this analyses. 1 Stress urinary incontinence was elicited by an affirmative answer to the question, “Do you leak urine with coughing, straining, laughing, physical activity or exercise?” SEM were configured with three latent variables which model possible effects of: additive genes (A), shared environment (C), and individual-specific environment (E). We used a sequential modeling technique to assess the model fit, by using -2 log likelihood ratio test and Akaike Information Criterion. 2 Heritability can be estimated from the most parsimonious model that includes an additive genetic effect.

Results: There were 638 MZ and 99 DZ twin sister pairs with complete data pertaining to SUI. The mean age was 41.7 ± 16.1 years (range 18 - 85), and the mean BMI was 26.1 ± 6.4 (range 13.5 - 55.8), with race comprised of 89.5% white, 6.0% Black, 2.0% Hispanic, and 2% of other ethnicities. There was no difference in general demographics: age, race, parity, bmi, menopausal status, mode of delivery or prior surgery between MZ and DZ twins. The overall prevalence of SUI was 42.3% and 49% in MZ and DZ twins respectively. The tetrachoric correlation was 0.789 in MZ, and 0.748 in DZ twins. The tetrachoric correlation was 0.789 in MZ, and 0.748 in DZ twins. Both correlations are significant indicating a high concordance of SUI amongst MZ and DZ twins. The concordance was not found to be significantly higher in MZ versus DZ twins - with MZ correlation nearly equaling DZ correlation, and largely overlapping 95% confidence intervals (MZ: 0.721–0.845; DZ: 0.536–0.882) both indicating that genetic effects were not contributory. Univariate model-fitting procedures supported this finding. Sequential structural equation modeling of the categorical data revealed that the CE model including shared environmental and unique environ-