

A PROSPECTIVE OBSERVATIONAL STUDY TO EVALUATE THE EFFECT OF PROLAPSE REPAIR ON VOIDING AND THE RELATIONSHIP TO THE OVERACTIVE BLADDER SYNDROME.

Hypothesis / aims of study

There is limited information regarding the co-existence of urinary symptoms and prolapse. What information there is, is conflicting. There have been few studies examining the effect of a prolapse repair on overactive bladder (OAB). A recent study of the effect of anterior repair on urinary symptoms showed resolution of urinary frequency, urgency and urge incontinence in 60, 70 and 82% of women following an anterior repair as well as significant improvements in quality of life (1). An earlier small retrospective study from our group showed resolution of OAB symptoms to be associated with a significant increase in urinary flow rates, despite no change in detrusor pressures at maximum flow (2).

In this study, we wished to prospectively evaluate the effect of prolapse repair on voiding parameters and overactive bladder symptoms in a large cohort of women with OAB, and to establish whether there is any link between symptom resolution and change in urinary flow rates.

Study design, materials and methods

140 women with bothersome OAB symptoms (as defined using the Urgency Perception Scale, UPS, and the King's Health Questionnaire) and symptomatic prolapse requiring surgical repair were recruited into this study. Patients with stress urinary incontinence requiring a continence procedure, a history of previous continence surgery and those with persistent or recurrent prolapse of stage 2 or above at follow up were excluded. Pre-operatively, all patients filled in the Urgency Perception Scale and King's Health Questionnaire, and underwent a free flow rate and post-void residual measurements. All women underwent a free flow study and residual at recruitment and 3 months later as a control to check for natural variations in flow rates. All patients underwent surgical repair of prolapse under general or spinal anaesthesia. No patients were treated with oestrogens either pre- or post-operatively. Patients were followed up at 10 weeks' post-operatively with a repeat set of questionnaires and a free flow and residual measurement. Centile values were calculated to account for any variations in voided volume. Subjects were divided into 2 groups- those that had experienced a significant improvement in OAB symptoms (as defined by a decrease in the value of the UPS) and those who had not. A Wilcoxon Matched Pairs Signed Rank test was used to evaluate whether there was any significant change in flow rates or residuals post-operatively in each group. A Mann Whitney U test was used to evaluate any differences in voiding parameters between groups at baseline.

Results

The median age of patients in this study was 53 years. There was no significant difference in flow rate centiles between measurements at baseline and at 3 months after recruitment. The improvement rate for urgency after a repair in this cohort was 60.0%. Improvement in OAB symptoms was not associated with a significant change in flow rate centile ($p=0.23$). Similarly, the presence of persistent symptoms after a repair was also not associated with any changes in flow rate centiles ($p=0.86$). There was no difference in flow rate centile between the two groups at baseline.

Interpretation of results

In this cohort of patients, there was no evidence that changes in voiding following prolapse repair were of importance in symptom improvement.

Concluding message

There may be other factors that are of importance in the resolution of OAB symptoms following prolapse repair. Such factors include correction of trigonal distortion following repair. Although we were unable to demonstrate a relationship between prolapse repair voiding and OAB in this cohort, further study using ultrasound to correlate structural changes in bladder and urethral architecture with changes in voiding and symptoms following a repair may be of benefit in further investigating this relationship.

References

1. Digesu G, Chaliha C, Salvatore S, Hutchings A, Khullar V. The relationship of vaginal prolapse severity to symptoms and quality of life. *BJOG* 2005; 112: 971-976
2. Basu M, Duckett J. Effect of prolapse repair on voiding and the relationship to overactive bladder and detrusor overactivity. *International Urogynecology Journal* 2009; 20(5): 499-504

<i>Specify source of funding or grant</i>	Research fellow salary paid using departmental research fund
<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	West Kent Research Ethics Committee
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes