

Authors: DUDLEY ROBINSON, JOHN BIDMEAD, LINDA CARDOZO, ALEX DIGESU, VIK KHULLAR, JANE RUFFORD.

Institution: DEPARTMENT OF UROGYNAECOLOGY, KINGS COLLEGE HOSPITAL.

Title: THE EFFECT OF PROLAPSE SURGERY ON URINARY SYMPTOMS.

Aim of Study:

Urogenital prolapse remains an important cause of morbidity representing 20% of elective gynaecological surgery and is often associated with lower urinary tract dysfunction. Pelvic surgery, whilst correcting the anatomical defect, may lead to worsening urinary symptoms thus adversely affecting quality of life. Anterior compartment prolapse is thought to be a cause of irritative urinary symptoms such as daytime frequency, nocturia, urgency and urge incontinence. In addition a chronic urinary residual, often associated with a significant cystocele, may precipitate recurrent lower urinary tract infections. The aim of this study was to assess the effect of prolapse surgery on quality of life.

Method:

Women with urogenital prolapse and concomitant lower urinary tract symptoms who were scheduled to have surgery were recruited prospectively from a tertiary referral urogynaecology clinic. They were assessed pre-operatively and again 3 months post-operatively. Objective clinical assessment was performed using the ICS Prolapse Scoring System (POPQ) whilst urinary symptoms were assessed subjectively using the Kings Health Questionnaire (KHQ) (1). A subset of 18 women with moderate or severe cystocele were analysed with regard to irritative urinary symptoms of frequency, urgency, urge incontinence and recurrent urinary tract infection. Specific urinary symptoms were assessed subjectively using a five point scale (0-4). Wilcoxon Signed Ranks were used for statistical analysis (SPSS, USA).

Results:

35 women were included in the study, 25 having previously undergone pelvic surgery. 10 had a vaginal hysterectomy and pelvic floor repair whilst the remaining 25 had a pelvic floor repair alone.

Objective POPQ scores were all significantly improved at 3 months with no significant reduction in vaginal length. In addition there was a significant reduction in the length of the genital hiatus (GH) although not in the length of the perineal body (**Table 1**).

	Mean Preoperative Score (cm)	Mean 3 Months Score (cm)	
Aa	-0.88	-2.56	p=0.003
BA	-1.17	-3.88	p=0.001
D	-4.75	-6.21	p=0.070
TVL	7.13	7.41	p=0.876
AP	-1.77	-2.76	p=0.035
BP	-2.36	-4.53	p=0.006
GH	3.92	3.21	p=0.032
PB	3.55	4.12	p=0.189

Table 1: Preoperative and post-operative POPQ scores.

Analysis of KHQ scores showed significant improvement in 6 out of the 9 domains. These domains were general health perception, incontinence impact, role limitations, physical limitations, social limitations, and emotions. Personal relationships, sleep/energy, and severity measures were unchanged.

When considering those women with correction of anterior compartment defects there was a significant improvement in anterior wall prolapse at 3 months in addition to symptoms of nocturia and urge incontinence. There was no change in symptoms of frequency, urgency and recurrent urinary tract infections. Equally the symptom of stress incontinence was unchanged (**Table 2**).

	MEDIAN SCORE (PREOPERATIVE)	MEDIAN SCORE (3 MONTHS)	
Frequency	2	2	p=0.271
Nocturia	2	1	p=0.004
Urgency	2	1	p=0.071
Urge Incontinence	2	1	p=0.010
Recurrent UTI	0	0	p=0.157
Stress Incontinence	1	0	p=0.054

Table 2: Pre-operative and post-operative symptom scores.

Conclusions:

Objective assessment using POPQ measurements confirms effective correction of urogenital prolapse and reduction in length of the genital hiatus without reducing functional vaginal length. Subjective assessment using a validated quality of life questionnaire confirms significant improvement with respect to lower urinary tract symptoms. Contrary to expectation correction of anterior compartment prolapse does not appear to improve irritative urinary symptoms although it does improve nocturia. This may be due to improved bladder emptying following cystocele repair although this is not supported by a reduction in recurrent urinary tract infections. These results form part of an ongoing study and may prove useful when counselling patients regarding the outcome of pelvic floor surgery.

References:

¹ A new questionnaire to assess the quality of life of urinary incontinent women. 1997. Br J Obstet Gynaecol; 104: 1374-1379.

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