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PROSPECTIVE LONG-TERM EVALUATION OF BLADDER, BOWEL AND SEXUAL FUNCTION DURING PESSARY USE FOR PELVIC ORGAN PROLAPSE

Hypothesis / aims of study

Although vaginal pessaries have been used in the management of pelvic organ prolapse (POP) for centuries, their long-term efficacy is unknown. There is also paucity of long term data regarding the effect of pessaries on pelvic floor function.[1] The aim of this study was to prospectively evaluate the effect of pessaries on bladder, bowel and sexual function after one year.

Study design, materials and methods

We conducted a prospective longitudinal study in a dedicated POP clinic located in a University Hospital. Women who were referred to this clinic were given the option of either having a pessary inserted or surgery. All women who chose to have a pessary inserted completed a Sheffield prolapse symptom questionnaire before insertion. The ring pessary was always considered first, failing which a variety of others including gellhorn, cube and doughnut pessaries were used. Pessary success was defined as adequate reduction of prolapse, without discomfort and absence of expulsion on movement, squatting and Valsalva. Failure was defined as the persistent inability to retain a pessary or need for removal due to discomfort. Women who chose the surgical option were also offered a vaginal pessary in the interim. Follow-up was performed at four to six monthly intervals and the Sheffield questionnaire was completed by women who successfully retained the pessary for one year. The Wilcoxon signed ranks test was used to analyse symptoms before, at four months and 12 months after pessary insertion.

Results

Two hundred and three women with POP chose to have a pessary. One hundred and thirty (64%) successfully retained the pessary at four months and 73 (36%) were considered as failures. Of the 130 women who successfully retained the pessary at 4 months, 16 opted for surgery, three died with the pessary in situ, four did not complete questionnaires as they were demented. Of the remaining 107 women, 48 were yet to complete one year follow-up and responses from the remaining 59 patients were analysed. The mean age of the study sample was 72 ± 12.5 years (range 39 – 97) and the median parity was 2 (range 0-6). There were 58 Caucasians and one Asian. Four women had previous hysterectomy and two had previous pelvic floor repair.

The changes in general, bowel and bladder symptoms before insertion of pessary to four months and from four months to one year are shown in Tables 1 & 2 respectively.

Only 8 of 59 (14%) were sexually active before pessary insertion and at four months 15 (25%) were sexually active (p=0.071). At 12 months 11 (18%) were sexually active (p=0.194). The number of women avoiding sex because of prolapse was 16 (27%) before pessary insertion, 11 (19%) at four months (p=0.103) and 10 (17%) at 12 months (p=0.564).

Interpretation of results

The significant improvement in voiding difficulties, urinary urgency, and faecal urgency after successful pessary use that occurred during the first four months was to some extent probably due to mechanical correction. Thereafter, there was no further change but improvement persisted at 12 months. As the number of women who were sexually active was small, the effects of successful pessary use on sexual function cannot be conclusive. However, it was interesting to note that sexual activity increased after pessary insertion and prolapse reduction, indicating that pessaries may not inhibit sexual activity.

Table 1: Change of symptoms before and 4 months after insertion of pessary *(n=59)*

Symptom	None	Same	Better	Worse	*p**
General symptoms					
Awareness of a lump in vagina	05 (8.4%)	08 (13.5%)	41 (69.5%)	05 (8.4%)	**0.000**
Prolpase coming out of vagina	19 (32.2%)	04 (6.8%)	31 (52.5%)	05 (8.4%)	**0.000**
Vaginal soreness	29 (49.1%)	14 (23.7%)	14 (23.7%)	02 (3.4%)	**0.003**
Dragging pain in lower abdomen	20 (33.9%)	17 (28.8%)	17 (28.8%)	05 (8.4%)	**0.005**
Low back pain	14 (23.7%)	21 (35.6%)	18 (30.5%)	06 (10.1%)	**0.007**
Bladder symptoms					
Incomplete emptying of bladder	15 (25.4%)	14 (23.7%)	22 (37.3%)	08 (13.5%)	**0.002**
Push prolapse to void	36 (61.1%)	03 (5.1%)	17 (28.8%)	03 (5.1%)	**0.002**
Urinary urgency	05 (8.4%)	21 (35.6%)	21 (35.6%)	12 (20.3%)	**0.014**
Urge urinary incontinence	11 (18.6%)	23 (38.9%)	16 (27.1%)	09 (15.3%)	0.131
Stress Urinary incontinence	11 (18.6%)	25 (42.4%)	11 (18.6%)	12 (20.3%)	0.896
Bowel symptoms					
Incomplete emptying of bowel	13 (22.0%)	18 (30.5%)	16 (27.1%)	12 (20.3%)	0.208
Rectal digitations to empty bowel	39 (66.1%)	05 (8.4%)	06 (10.1%)	09 (15.3%)	0.518
Vaginal digitations to empty bowel	54 (91.5%)	01 (1.7%)	01 (1.7%)	03 (5.1%)	0.317
Faecal urgency	26 (44.1%)	17 (28.8%)	12 (20.3%)	04 (6.8%)	**0.039**
Urge faecal incontinence	36 (61.1%)	11 (18.6%)	08 (13.5%)	04 (6.8%)	0.248

Table 2: Change of symptoms from 4 months to 12 months after insertion of pessary *(n=59)*

Symptom	None	Same	Better	Worse	*p**
General symptoms					
Awareness of a lump in vagina	28 (47.5%)	06 (10.1%)	12 (20.3%)	13 (22.0%)	0.675
Prolpase coming out of vagina	44 (74.6%)	03 (5.1%)	06 (10.1%)	06 (10.1%)	0.837
Vaginal soreness	34 (57.6%)	12 (20.3%)	05 (8.4%)	08 (13.5%)	0.499
Dragging pain in lower abdomen	31 (52.5%)	13 (22.0%)	09 (15.3%)	06 (10.1%)	0.268
Low back pain	17 (28.8%)	28 (47.5%)	12 (20.3%)	12 (20.3%)	0.852
Bladder symptoms					
Incomplete emptying of bladder	25 (42.4%)	12 (20.3%)	09 (15.3%)	13 (22.0%)	0.453
Push prolapse to void	46 (77.9%)	02 (3.4%)	05 (8.4%)	06 (10.1%)	0.448
Urinary urgency	09 (15.3%)	21 (35.6%)	15 (25.4%)	14 (23.7%)	0.991
Urge urinary incontinence	14 (23.7%)	27 (45.7%)	05 (8.4%)	13 (22.0%)	0.050
Stress Urinary incontinence	14 (23.7%)	29 (49.1%)	07 (11.8%)	09 (15.3%)	0.544
Bowel symptoms					
Incomplete emptying of bowel	17 (28.8%)	26 (44.1%)	06 (10.1%)	10 (16.9%)	0.289
Rectal digitations to empty bowel	42 (71.2%)	08 (13.5%)	06 (10.1%)	03 (5.1%)	0.851
Vaginal digitations to empty bowel	52 (88.1%)	03 (5.1%)	01 (1.7%)	03 (5.1%)	0.317
Faecal urgency	29 (49.1%)	10 (16.9%)	11 (18.6%)	09 (15.3%)	0.835
Urge faecal incontinence	37 (62.7%)	12 (20.3%)	04 (6.8%)	06 (10.1%)	0.527

* Wilcoxon signed ranks test

Concluding message

This is the first prospective study to evaluate the effect of bladder, bowel and sexual function in successful pessary users for POP at one year using a validated questionnaire. Vaginal pessaries are effective in alleviating voiding dysfunction, urinary and faecal urgency associated with POP during first four months and this is maintained at one year. This information is important to the women with POP making a choice between conservative and surgical management.

References:

1. Mechanical devices for pelvic organ prolapse in women. The Cochrane Database of Systematic Reviews 2005, Issue 1.