

Conservative versus surgical management of prolapse: what dictates patient choice?

Dharmesh S. Kapoor · Raneer Thakar ·
Abdul H. Sultan · Reeba Oliver

Received: 17 January 2009 / Accepted: 27 May 2009 / Published online: 19 June 2009
© The International Urogynecological Association 2009

Abstract

Introduction and hypothesis The aim of this study is to establish whether the presence of severe symptoms influences women's choice of pessaries or surgery for uterovaginal prolapse.

Methods This is a prospective study using the validated Sheffield Prolapse Symptoms Questionnaire.

Results Women choosing surgery ($n=251$) were younger (58 versus 66 years), more bothered by dragging lower abdominal pain (33% versus 25%, $P=0.04$), need for vaginal digitation (8% versus 3%, $P=0.02$), and incomplete bowel emptying (27% versus 19%, $P=0.01$) than women choosing pessaries ($n=429$). More women opting for surgery were sexually active (51% versus 29%, $P<0.0001$), perceived avoidance of sex due to prolapse (28% versus 17%, $P=0.000$), and perceived prolapse interfering with sexual satisfaction as a severe problem (26% versus 15%, $P=0.000$).

Conclusions Nearly two thirds of women with symptomatic prolapse initially opted for conservative management. Women choosing surgery over pessaries for treatment of prolapse describe more severe symptoms related to bowel emptying, sexual function, and quality of life and are bothered by them.

Keywords Bowel emptying · Quality of life · Surgery · Prolapse · Sexual function · Pessaries

Introduction

Pelvic organ prolapse (POP) is associated with older age, vaginal birth, and postmenopausal status and the majority of women with POP are asymptomatic [1]. It is estimated that 11% of all women in the Western world will undergo surgery for prolapse or incontinence in their lifetime and 30% of these will undergo an operation for recurrent prolapse [2]. In 1997, 22.7 out of 10,000 women in the United States underwent surgery for prolapse and, on average, 200,000 women undergo prolapse repair each year [3]. While prolapse can be conservatively managed in women with expectant management or a variety of pessaries, it is the most common indication for hysterectomy in women aged 55 years and older [4]. Reasons for this trend might be the perception among gynecologists that pessaries are suitable only for poor surgical candidates [5] and that nearly half of gynecologists consider sexual activity to be a contraindication to pessary treatment [6].

Recently, there has been interest in factors influencing women's choice of treatment. Heit et al. [7] first published data on predictors of patient choice in women seeking treatment for POP. They found that pessary treatment was preferred over surgery by women who were older and who had less severe anatomic prolapse. Furthermore, women who had previous surgery for prolapse were more likely to choose surgery again. However, they did not report on preference based on urinary, bowel, or sexual symptoms.

There is increasing emphasis on "symptomatic improvement" as a measure of treatment efficacy in the management of genital prolapse [8]. Studies using patient-centered goals describe symptom relief to be the top priority for women [9], irrespective of whether patients opted for surgery or nonsurgical treatment for prolapse [10–13].

D. S. Kapoor · R. Thakar (✉) · A. H. Sultan · R. Oliver
Mayday University Hospital,
530 London Road,
Croydon, Surrey CR7 7YE, UK
e-mail: raneer.thakar@mayday.nhs.uk

The aim of this study was to establish if women's choice of either pessaries or surgery is influenced by the presence of severe symptoms associated with prolapse.

Materials and methods

All women, referred to a specialist urogynecology unit in the United Kingdom between June 2002 and July 2007 with bothersome symptomatic POP, were offered both options of conservative and surgical management of prolapse. Following nondirective counseling by the attending physician, the patient made the decision on her first line of management. If the patients required more time to make their decision, a further appointment was made. Women opting for expectant management were referred back to the general practitioner and their details were not added to the database. Commonly used pessary types included the ring, cube, donut, and gellhorn. All women completed the validated Sheffield Prolapse Symptoms Questionnaire [14] in the waiting area *prior* to being seen by a physician. The Sheffield Questionnaire elicits responses to 26 prolapse-related symptoms (general, urinary, bowel, sexual, quality of life). It also addresses the issue of bothersomeness of each symptom complex. Responses are graded on a four-point Likert scale where applicable (never, occasionally, most of the time, all of the time). A symptom was judged to be "severe" if the patient complained of it being present "most" or "all the time" and it was described as "quite a problem" or "a serious problem" on the bother scale. The questionnaire forms part of our routine clinical evaluation of patients with prolapse. All patients gave written consent to use the data from questionnaires for scientific publications, and this was sanctioned by the local research and

development committee. Prolapse was graded by the Baden–Walker halfway system.

Data was analyzed using the SPSS version 15.0 (SPSS, Chicago, IL, USA). Fisher's exact two-tailed tests were used to compare the two groups, *P* values <0.05 were regarded as significant.

Results

Six hundred eighty women who attended the urogynecology unit with bothersome prolapse and chose either surgery or pessary treatment completed the Sheffield Prolapse Symptoms Questionnaire. Two hundred fifty-one women chose to have surgery (median 58 years, SD 13) while 429 women opted for pessary reduction of prolapse (median 66 years, SD 13). Thus, nearly two thirds of referred women chose to have a pessary for initial management of prolapse. Details of previous surgery, grade of prolapse, and leading edge of prolapse are shown in Table 1. Grade 2 POP was found in more than half of the women in the surgery and pessary groups, and cystocele was the leading edge of the prolapse in both groups.

The predominant symptoms (of any severity) affecting women who attended our clinic with symptomatic prolapse were presence of a vaginal lump (89%, 606 out of 680), urinary urgency (82%, 557 out of 680), urge incontinence (74%, 501 out of 679), dragging pain in the lower abdomen (68%, 461 out of 678), difficulty in bladder emptying (67%, 457 out of 680), difficulty in evacuating bowels (62%, 421 out of 674), and fecal urgency (53%, 360 out of 680).

On the bother scale, vaginal lump (86%, 575 out of 672), urinary urgency (74%, 499 out of 671), urge incontinence (67%, 450 out of 668), dragging pain in the lower abdomen

Table 1 Demographics and patient data

	Surgery group, % (n)	Pessary group, % (n)	<i>P</i> value
Age (mean, SD)			
Previous hysterectomy	17.1 (43/251)	14.4 (62/429)	0.69
Previous pelvic floor repair	6.8 (17/251)	8.4 (36/429)	0.33
Grade of POP			
Grade 1	6.5 (16/247)	5.2 (19/363)	0.59
Grade 2	60.3 (149/247)	53.7 (195/363)	0.11
Grade 3	32.8 (81/247)	38.6 (140/363)	0.17
Grade 4	0.4 (01/247)	2.5 (09/363)	0.05
Leading edge of POP by compartment (>100%)			
Cystocele	74.5 (184/247)	68 (247/363)	0.1
Uterus/cervix	23.9 (59/247)	21.2 (77/363)	0.49
Rectocele	25.9 (64/247)	24 (87/363)	0.6
Vaginal vault	5.7 (14/247)	5 (18/363)	0.7

Table 2 Number of severely affected patients who chose either surgery or pessary treatment

Severe symptom	Surgery, % (n)	Pessary, % (n)	P value
General symptoms			
Vaginal lump	71 (194/251)	71 (306/429)	0.10
Bother	59 (147/250)	58 (245/422)	0.92
Lump protrudes	35 (88/249)	41 (175/424)	0.15
Bother	44 (107/245)	50 (211/421)	0.13
Vaginal soreness	14 (35/251)	14 (60/428)	1
Bother	18 (44/249)	18 (76/418)	1
Dragging pain	30 (75/251)	24 (103/426)	0.13
Bother	33 (82/249)	25 (107/424)	0.04*
Low backache	35 (88/251)	34 (144/429)	0.8
Bother	37 (92/251)	33 (142/426)	0.45
Urinary symptoms			
Voiding difficulty	37 (93/251)	29 (126/429)	0.05
Bother	32 (80/249)	25 (107/422)	0.07
Digitate to micturate	12 (30/249)	10 (41/422)	0.41
Bother	13 (31/242)	15 (62/407)	0.46
Urgency	32 (81/251)	35 (153/429)	0.43
Bother	33 (83/248)	34 (146/423)	0.84
Urge incontinence	19 (47/251)	20 (87/428)	0.68
Bother	31 (78/247)	28 (119/421)	0.38
Stress incontinence	19 (47/251)	18 (77/429)	0.88
Bother	23 (58/248)	21 (87/421)	0.47
Bowel symptoms			
Passive fecal incontinence	1.6 (4/251)	3.3 (14/427)	0.28
Bother	9 (22/239)	6.6 (27/408)	0.29
Incomplete bowel emptying	27 (68/251)	19 (80/422)	0.01**
Bother	26 (64/248)	19 (78/417)	0.04*
Rectal digitation	6 (15/251)	4 (15/422)	0.20
Bother	11 (26/235)	7 (29/398)	0.13
Vaginal digitation	8 (19/251)	3 (14/420)	0.02*
Bother	9 (22/237)	5 (19/400)	0.03*
Obstructed defecation	8 (27/251)	8 (36/421)	0.42
Bother	15 (36/243)	11 (44/414)	0.14
Fecal urgency	11 (27/251)	9 (37/420)	0.50
Bother	13 (31/244)	12 (48/411)	0.8
Fecal urge incontinence	2 (5/251)	5 (22/422)	0.06
Bother	11 (28/245)	15 (36/405)	0.35
Sexual function			
Sexually active	51 (127/249)	29 (118/414)	<0.0001***
Avoid sex because of prolapse	46 (70/151)	52 (87/166)	0.33
Problematic	28 (67/238)	17 (65/390)	0.000***
Prolapse affects sexual satisfaction	43 (63/146)	40 (57/144)	0.61
Problematic	26 (61/234)	15 (58/388)	0.000***
Quality of life issues			
Prolapse interferes with physical activity	41 (103/251)	36 (153/422)	0.24
Problematic	39 (97/250)	34 (141/417)	0.22
Prolapse affects enjoyment of life	55 (139/251)	46 (194/421)	0.02*
Problematic	44 (109/250)	38 (160/418)	0.2
Spend rest of your life without treatment	74 (186/250)	65 (268/411)	0.01**

*, **, *** $P < 0.05$

(64%, 430 out of 673), voiding difficulty (61%, 406 out of 671), and difficulty evacuating bowels (54%, 357 out of 665) were perceived as being a problem.

The frequency of severe general prolapse, urinary and bowel symptoms, sexual function, and quality of life issues are shown in Table 2. Women who opted for surgery were more likely to report severe symptoms of incomplete bowel emptying and need for vaginal digitation to complete defecation. Women who opted for surgery were more likely to be bothered by dragging pain in the lower abdomen, need for vaginal digitation, and incomplete bowel emptying. Significantly more women who opted for surgery would be unhappy if they had to live with their prolapse without any treatment.

The most significant differences were in the domain of sexual function. More women who opted for surgery were sexually active and perceived avoidance of sex due to the prolapse as a severe problem. Women who opted for surgery were also more likely to perceive prolapse interfering with sexual satisfaction as a problem.

Discussion

In this study, we found that women who opted for surgery were more likely to report severe symptoms of vaginal digitations and incomplete emptying of bowels and be bothered by them. In addition, they also felt that prolapse significantly affected their enjoyment of life and that they would be “unhappy/very unhappy” if they had to endure their condition without any treatment. On extensive search of the literature, we have not been able to find another study looking at the role of symptom severity, sexual function, and general quality of life issues in patient decision making of management options. Heit et al. [7] included patients who had previously tried pessary treatment and also women who had “expectant” management but did not report on urinary, bowel, or sexual symptoms.

Prolapse has previously been shown to have a negative impact on sexual function [15]. In the present study, more women in the group that opted for surgical treatment of prolapse were sexually active than the group that chose pessaries. Twenty-eight percent of them tended to avoid sexual activity compared to 17% in the pessary group. Compared to the pessary group, significantly more women in the surgery group perceived diminished sexual satisfaction due to prolapse as a problem (26% versus 15%). A possible explanation for these differences could be that women who opted for surgery were younger (median 58 years) than women who chose pessaries (median 66 years) although the standard deviations of age in the two groups overlapped. It is also possible that some women in the surgery group were not aware that a pessary could help in this situation. Indeed,

Brincat et al. [16] reported that women who were sexually active were more likely to *continue* pessary use, suggesting that long-term pessary use is acceptable to sexually active women. We have previously shown sexual function to improve after pessary reduction of prolapse [17]. Similarly, surgery for prolapse has been shown to improve sexual function in some studies [18–22], although others have cited no change or worsening due to dyspareunia [23, 24]. This suggests that sexual function can improve with both surgical and nonsurgical management of prolapse.

A limitation of this study is that we did not correlate the anatomical compartment of the prolapse with symptom severity. However, one of the questions asked in our study was whether the “vaginal lump came out altogether,” and a similar number of women in the surgery and pessary groups described this as a severe symptom (61% versus 67%, $P=0.13$), and both groups were similar with respect to grades of prolapse distribution and leading edge of prolapse (Table 1). Moreover, previous investigators have found no correlation between symptoms and compartment of prolapse [25] or the grade of prolapse [26]. Although the pessary group was older in the present study, they did not describe more symptoms. Similarly, Weber et al. found that, while increasing severity of prolapse was associated with interference with sexual activity, it did not affect the degree of sexual satisfaction or the frequency of intercourse [27]. Another limitation is the lack of longitudinal follow-up data, although our group has previously published medium-term results of women managed with pessaries [17].

While the literature suggests that pessary treatment is effective in reducing prolapse-associated symptoms [17] and is acceptable to sexually active women [16], physicians maybe biased in their assessment of a woman’s suitability for pessary treatment [6]. Patients themselves may have preconceived notions, and their beliefs and attitudes regarding the etiology and perceived “success” of each treatment choice may influence health-seeking behaviors such as treatment choice.

Our findings suggest that women who choose surgery over pessaries for treatment of prolapse describe more severe and bothersome symptoms relating to bowel emptying, sexual function, and quality of life.

Conflicts of interest None.

References

1. Swift SE (2000) The distribution of pelvic organ support in a population of female subjects seen for routine gynecologic health care. *Am J Obstet Gynecol* 183:277–285
2. Olsen AL, Smith VJ, Bergstrom JO, Colling JC, Clark AL (1997) Epidemiology of surgically managed pelvic organ prolapse and urinary incontinence. *Obstet Gynecol* 89:501–506

3. Subak LL, Waetjen LE, van den Eeden S, Thom DH, Vittinghoff E, Brown JS (2001) Cost of pelvic organ prolapse surgery in the United States. *Obstet Gynecol* 98:646
4. Wilcox LS, Koonin LM, Pokras R, Strauss LT, Xia Z, Peterson HB (1994) Hysterectomy in the United States, 1988–1990. *Obstet Gynecol* 83:549–555
5. Pott-Grinstein E, Newcomer JR (2001) Gynecologist's patterns of prescribing pessaries. *J Reprod Med* 46:205–208
6. Cundiff GW, Weidner AC, Visco AG, Bump RC, Addison WA (2000) A survey of pessary use by members of the American urogynecologic society. *Obstet Gynecol* 95:931–935
7. Heit M, Rosenquist C, Culligan P, Graham C, Murphy M, Shott SS (2003) Predicting treatment choice for patients with pelvic organ prolapse. *Obstet Gynecol* 101:1279–1284
8. Weber AM (2001) Anterior colporrhaphy: a randomised trial of three surgical techniques. *Am J Obstet Gynecol* 185:1299–1306
9. Hullfish KL, Bovbjerg VE, Gibson J, Steers WD (2002) Patient-centred goals for pelvic floor dysfunction surgery: what is success and is it achieved? *Am J Obstet Gynecol* 187:88–92
10. Lowenstein L, Fitzgerald MP, Kenton K, Dooley Y, Templehof M, Mueller ER, Brubaker L (2008) Patient-selected goals: the fourth dimension in assessment of pelvic floor disorders. *Int Urogynecol J Pelvic Floor Dysfunct* 19:81–84
11. Elkadry EA, Kenton KS, Fitzgerald MP, Shott S, Brubaker L (2003) Patient-selected goals: a new perspective on surgical outcome. *Am J Obstet Gynecol* 189:1551–1557
12. Clemons JL, Aguilar VC, Tillinghast TA, Jackson ND, Myers DL (2004) Risk factors associated with an unsuccessful pessary fitting trial in women with pelvic organ prolapse. *Am J Obstet Gynecol* 190:345–350
13. Hullfish KL, Bovbjerg VE, Steers WD (2004) Patient-centred goals for pelvic floor dysfunction surgery: long-term follow-up. *Am J Obstet Gynecol* 191:201–205
14. Bradshaw HD, Hiller L, Farkas AG, Radley S, Radley SC (2006) Development and psychometric testing of a symptom index for pelvic organ prolapse. *J Obstet Gynaecol* 26:241–252
15. Novi JM, Jeronis S, Morgan MA, Arya LA (2005) Sexual function in women with pelvic organ prolapse compared to women without pelvic organ prolapse. *J Urol* 173:1669–1672
16. Brincat C, Kenton K, Fitzgerald MP, Brubaker L (2004) Sexual activity predicts continued pessary use. *Am J Obstet Gynecol* 191:198–200
17. Fernando RJ, Thakar R, Sultan AH, Shah SM, Jones PW (2006) Effect of vaginal pessaries on symptoms associated with pelvic organ prolapse. *Obstet Gynecol* 108:93–99
18. Handa VL, Zyczynski HM, Brubaker L et al (2007) Sexual function before and after sacrocolpopexy for pelvic organ prolapse. *Am J Obstet Gynecol* 197:629.e1–629.e6
19. Komesu YM, Rogers RG, Kammerer-Doak DN, Barber MD, Olsen AL (2007) Posterior repair and sexual function. *Am J Obstet Gynecol* 197:101.e1–101.e6
20. Paraiso MF, Barber MD, Muir TW, Walters MD (2006) Rectocele repair: a randomized trial of three surgical techniques including graft augmentation. *Am J Obstet Gynecol* 195:1762–1771
21. Barber MD, Visco AG, Wyman JF, Fantl JA, Bump RC, Continence Program for Women Research Group (2002) Sexual function in women with urinary incontinence and pelvic organ prolapse. *Obstet Gynecol* 99:281–289
22. Weber AM, Walters MD, Piedmonte MR (2000) Sexual function and vaginal anatomy in women before and after surgery for pelvic organ prolapse and urinary incontinence. *Am J Obstet Gynecol* 182:1610–1615
23. Pauls RN, Silva WA, Rooney CM et al (2007) Sexual function after vaginal surgery for pelvic organ prolapse and urinary incontinence. *Am J Obstet Gynecol* 197:622.e1–622.e7
24. Kahn MA, Stanton SL (1997) Posterior colporrhaphy: its effect on bowel and sexual function. *Br J Obstet Gynaecol* 104:82–86
25. Ellerkmann RM, Cundiff GW, Melick CF, Nihira MA, Leffler K, Bent AE (2001) Correlation of symptoms with location and severity of pelvic organ prolapse. *Am J Obstet Gynecol* 185:1332–1338
26. Fialkow MF, Gardella C, Melville J, Lentz GM, Fenner DE (2002) Posterior vaginal wall defects and their relation to measurements of pelvic floor neuromuscular dysfunction and posterior compartment symptoms. *Am J Obstet Gynecol* 187:1443–1448
27. Weber AM, Walters MD, Schover LR (1995) Sexual function in women with uterovaginal prolapse and urinary incontinence. *Obstet Gynecol* 85:483–487