

CHANGES IN DEMOGRAPHICS AND TYPE OF PROCEDURE AMONG WOMEN UNDERGOING SURGERY FOR PELVIC FLOOR DYSFUNCTION

Hypothesis / aims of study

Uterovaginal prolapse surgery is common and frequently requires surgical correction. It is well recognised that obstetric pelvic floor trauma is a significant risk factor for the later development of pelvic organ prolapse. In the last three years, we had noticed an increasing number of younger woman being referred to our tertiary level clinic for management of prolapse, and it seemed that the severity of these prolapses was increasing. Thus we undertook this retrospective study to determine whether there had been a change in time in the demographics of woman attending our service, and whether there had been a change in surgical procedures performed.

Study design, materials and methods

This was a retrospective chart review of all patients listed for prolapse surgery under the care of a single UK urogynaecologist. Ethical committee approval was not required because this was a study of routinely collected clinical data. Data were collected from theatre diaries; all cases of uterovaginal prolapse repair were included from two three-year windows: 2006-08 and 2013-15. Demographic details (age, ethnicity) of the patient were collected and the procedure listed was categorised by compartment of prolapse to be repaired. These were apical (sacrocolpopexy, hysteropexy or sacrospinous fixation), anterior (standard fascial repair, anterior mesh procedures), posterior (standard fascial repair, posterior mesh procedures), perineum (perineal repair or perineorrhaphy). The intention to perform hysterectomy or not was also recorded. Some patients had surgery planned for more than one compartment and these were counted for each compartment separately. The median age and type of procedure planned were compared between year cohorts using appropriate non-parametric tests. The relationship between age (linear and by different cut-offs), type of procedure and year cohort was examined using two by two tables, non-parametric tests, Chi square test, and odds ratio (OR) with 95% confidence intervals (95% CI).

Results

365 women were included, 164 (45%) from 2006-08 ("old" cohort) and 201 (55%) from 2013-15 ("recent" cohort). The median age of women in the recent cohort was lower (60.0 years vs 62.5, $p=0.014$). The recent cohort had more younger women by each age cut-off applied (Table 1a).

Apical procedures (OR 1.88) and perineorrhaphy (OR 29.31) were more frequent among the recent cohort while anterior operations were less common (OR 0.55) (Table 1). Apical procedures were less common in younger women by all age cut offs: < 50: 22.5% vs 37.9% ($p=0.01$); <45: 17.3% vs 37.4% ($p=0.005$); <40: 20.0% vs 35.4% ($p=0.16$). Perineorrhaphy was more common in younger women: < 50: 41.3% vs 19.6% ($p<0.001$); <45: 50.0% vs 20.1% ($p<0.001$); <40: 80.0% vs 21.2% ($p<0.001$). Posterior procedures were more common in younger women: <45: 57.7% vs 39.9% ($p=0.016$); <40: 75.0% vs 40.6% ($p=0.002$); <35: 84.6% vs 40.9% ($p=0.002$).

Table 1

	2006-08 (n=164) "old" cohort	2013-15 (n=201) "recent" cohort	OR (95% CI)	p
Age (median)	62.5 (25-88)	60.0 (31-86)		0.014
age <50 (n[%])	25 [15.2]	55 [27.4]		0.005
age <45 (n,%)	15 [9.1]	37 [18.4]		0.012
age <40 (n,%)	4 [2.4]	16 [8.0]		0.022
Apical procedures (n[%])	44 [26.8]	82 [40.8]	1.88 (1.20, 2.93)	0.005
Perineorrhaphy (n[%])	4 [2.4]	85 [42.3]	29.31 (10.45, 82.17)	< 0.001
Anterior procedures (n[%])	97 [59.1]	89 [44.3]	0.55 (0.36, 0.83)	0.005

Table 2

	age <50 (n[%])	p	age <45 (n,%)	p	age <40 (n,%)	p
Apical procedures	22.5% vs 37.9%	0.01	17.3% vs 37.4%	0.003	20.0% vs 35.4%	0.12
Perineorrhaphy	41.3% vs 19.6%	<0.001	50.0% vs 20.1%	<0.001	80.0% vs 21.2%	<0.001
Posterior procedures	47.5% vs 41.1%	0.303	57.7% vs 39.9%	0.016	75.0% vs 40.6%	0.002

Interpretation of results

This study confirmed the impression that in recent years women undergoing uterovaginal prolapse surgery were significantly younger. Apical and perineal procedures were substantially more common in the recent cohort. Posterior vaginal and perineal procedures were much more common in younger women. It is not possible to be certain how much of the change was due to changing presentations, and how much due to evolution of surgical decision making. The two cohorts are from before and after the media awareness of mesh complications, so the change in surgical procedure may partly represent a move away from vaginal surgical mesh repair of apical compartment prolapse. However, the high rate of posterior and perineal procedures among young women is worrying and may related to the changes in midwifery practice in terms of both "hands on" versus "hands off", and also the move to rapidly absorbable polyglactin sutures for perineal repair[1].

Concluding message

There has been a change in the demographics of women attending with pelvic organ prolapse with apical and perineal procedures performed substantially more often in the recent cohort. These finding must be confirmed in other centres and longitudinal studies are needed to explore factors mediating this phenomenon.

References

1. Kettle C, Dowswell T, Ismail KM. Absorbable suture materials for primary repair of episiotomy and second degree tears. Cochrane Database Syst Rev. 2010:CD000006

Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** It was a retrospective audit of routinely collected clinical data available to the clinical team. **Helsinki:** Yes **Informed Consent:** No