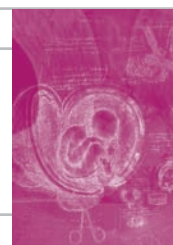


# Do urologists and gynaecologists manage posterior compartment prolapse differently?



**Ameera Adam, MB BCh**

**Department of Obstetrics and Gynaecology, Stellenbosch University**

**Stephen Jeffery, MB ChB, FCOG (SA), Sub Spec Urogyn (RCOG)**

**Groote Schuur Hospital and University of Cape Town**

**Ahmed Adam, MB BCh, Dip PEC (SA)**

**Department of Urology, University of Pretoria**

**Peter de Jong, MB ChB, FCOG (SA), FRCOG (Lond)**

**Groote Schuur Hospital and University of Cape Town**

**Yusuf Arieff, MB ChB**

**Private practice**

**Introduction and hypothesis.** A comparative study assessing the management of posterior compartment prolapse (PCP) by gynaecologists and urologists in South Africa.

**Methods.** Questionnaires relating to the above procedures were posted to a nationwide random selection of urologists and gynaecologists.

**Results.** Of 500 questionnaires 106 (21%) were returned, 26 from urologists and 80 from gynaecologists. Urologists performed fewer PCP procedures, with 73% ( $N=19$ ) doing less than one case per month; 58% of the urologists who indicated their procedure of choice would use a mesh kit. Of the gynaecologists, 60% ( $N=48$ ) performed at least 5 procedures per month. Vaginal hysterectomy was not used in the management of prolapse by any of the responding urologists, compared with 82% ( $N=66$ ) of the gynaecologists. In defining a successful outcome, only 12% ( $N=3$ ) of the urologists and 14% ( $N=11$ ) of the gynaecologists mentioned sexual function, while 46% ( $N=12$ ) of the urologists and 37% ( $N=30$ ) of the gynaecologists mentioned bowel function.

**Conclusion.** Urologists use significantly more mesh kits and gynaecologists perform more traditional repairs.

Gynaecologists and urologists are commonly faced with the challenge of managing women with posterior compartment prolapse (PCP). A rectocele is fundamentally a defect in the rectovaginal septum, not the rectum, and the size does not correlate with the amount of functional derangement. This problem is associated with diverse symptomatology, including anatomical complaints relating to the bulge and a broad range of functional symptoms including both sexual and defaecatory problems.<sup>1</sup> The difficulties associated with managing this problem have driven women to seek care from a range of surgical specialties. Each specialty, including urologists, gynaecologists and colorectal surgeons, has both strengths and weaknesses in their experience and training in the management of PCP, and they are therefore able to address these problems with varying degrees of success.

For many years, the standard operative management of rectocele was a posterior colporrhaphy, which usually

included a fascial plication and sometimes a levator plication. Recent surgical developments have led to the introduction of a number of devices to improve success rates of posterior compartment surgery. These include the use of mesh or graft interposition, which may either be a synthetic polypropylene mesh or a biological auto-, allo- or xenograft. Trocar-based kits, including Posterior Prolift, Apogee and Avaulta, have also become extremely popular in the management of PCP.<sup>1</sup>

Surgery for pelvic organ prolapse is traditionally performed by gynaecologists. Almost all postgraduate training programmes in obstetrics and gynaecology include academic, clinical and surgical training in the management of pelvic organ prolapse. Globally, however, surgical training opportunities in gynaecology appear to be decreasing and many gynaecologists will complete their training with inadequate exposure to surgical techniques to address pelvic organ prolapse.

The close association between surgery for stress urinary incontinence and pelvic floor reconstructive surgery, and the fact that these operations are often done concurrently, have led to urologists taking an interest in pelvic organ prolapse surgery. Urologists often have a broader surgical background than gynaecologists, and this is certainly the case in South Africa, where many urologists have spent extensive training in general surgery and trauma. However, urologists may have limited exposure to surgery for PCP during their registrar training.

Most experts will agree that while a broad range of procedures for the management of PCP is available, the optimal approach is still unresolved.

Structured fellowship training in urogynaecology and female urology is currently limited in South Africa. This means that for both urologists and gynaecologists post-specialisation training activities in pelvic floor reconstructive surgery are currently restricted to industry-driven training, which occurs locally and internationally.

We felt that the practice of an individual physician would reflect the overall training that he or she had received. Before commencement of this study, we hypothesised that gynaecologists would be less dependent on industry-driven surgical techniques than urologists.

Our aim in this study was therefore to determine the differences in the investigation and management of PCP by urologists and gynaecologists in South Africa.

## Materials and methods

We elected to sample gynaecologists and urologists practising in the private sector in South Africa. We obtained ethics approval to question a cohort of South African urologists and gynaecologists on their diagnostic and surgical approach to PCP.

Specialists were selected using the websites of a number of private hospital groups in South Africa. We selected the gynaecologists and urologists listed at each hospital. The largest hospital groups in South Africa include Netcare, Medi-Clinic and Life, and we attempted to send questionnaires to as many of the listed practitioners working nationally for these groups as possible.

In the questionnaire we asked the doctors to specify their speciality and whether they considered themselves to be a subspecialist in urogynaecology or female urology. We also asked them to indicate how long they had been in specialist practice. The doctors were then asked to specify the number of women with PCP they see in a typical month and how many operations they perform for this problem.

A question relating to their approach to investigating PCP was also included. We asked them to state how often they request proctography, transit studies, manometry and endo-anal ultrasound, with the options of 'never', 'occasionally', 'sometimes' and 'always'.

In the questionnaire we also provided respondents with a list of procedures (Table I) and asked them to indicate the procedure of choice for PCP in their practice.

The questionnaire included two items about what the doctor considers to be an adequate indication for surgery to the posterior compartment. It also assessed what would be regarded as a successful outcome. Space was provided for a free-hand answer to avoid any bias from a leading question.

The doctors were also asked to specify whether they performed combined surgery with another speciality, and whether they utilised vaginal hysterectomy for PCP.

A stamped addressed envelope with a return address accompanied the questionnaire. We assured the respondents complete anonymity, and for this reason it was not possible to follow up non-responders.

Ethics approval for the study was obtained from the University of Cape Town Research Ethics Committee (REC REF:506/2008). Data were entered into a Microsoft Excel Database and analysed using SPSS 10.0 software.

## Results

Five hundred questionnaires were sent out to gynaecologists and urologists in the private sector of South Africa. The response rate was 21% ( $N=106$ ), 25% ( $N=26$ ) of responses being from urologists and 75% ( $N=80$ ) from gynaecologists.

**Table I. Procedure of first choice for each speciality**

	<b>Gynaecologists (N (%))</b>	<b>Urologists (N (%))</b>
Mesh kit (Prolift, Avaulta, Apogee)	14 (17)	11 (42)
Fascial plication	8 (10)	2 (8)
Levator plication	4 (5)	0 (0)
Posterior repair	39 (48)	6 (23)
Transanal repair	1 (1)	0 (0)
Post repair with synthetic mesh	7 (8.8)	0 (0)
Posterior repair with biological mesh	0 (0)	0 (0)
Post repair with STARR procedure	1 (1.3)	0 (0)
Did not specify	7 (8.8)	7 (23)

Data on the number of specialists in South Africa are difficult to obtain. Personal communication with the Colleges of Medicine of South Africa (May 2009) suggests that many doctors registered in the country are practising abroad. We estimate that our responses represent approximately 20% of the total number of South African urologists and 10% of gynaecologists.

None of the urologists reported performing vaginal hysterectomy for prolapse, as opposed to 80% ( $N=64$ ) of gynaecologists who still utilised the procedure. When asked the reason for this, 50% ( $N=13$ ) of urologists reported they had never been trained and 26% ( $N=7$ ) said that it was never indicated in their practice.

Unfortunately, 23% ( $N=7$ ) of urologists and 8% ( $N=7$ ) of gynaecologists failed to specify their first choice of procedure for PCP. Of the urologists who did denote their preference, 58% ( $N=11$ ) reported that they would use a mesh kit, including Posterior Prolift, Apogee or Avaulta. Only 17% ( $N=14$ ) of gynaecologists used mesh kits as their first choice. Nearly two-thirds of the gynaecologists still preferred a traditional technique, including fascial plication (10%), levator plication (5%) or posterior repair (48%) (Table I).

Of the gynaecologists, 27% ( $N=22$ ) considered themselves to be sub-specialists or practising with a special interest

in urogynaecology. Of the urology cohort, 42% ( $N=11$ ) reported having a special interest in female urology.

The gynaecology cohort had been in practice for a mean of 17.3 years (standard deviation (SD) 10.4, range 2 - 40) and the urologists for a mean of 16.6 years (SD 9.8, range 2 - 44).

The number of patients seen with PCP in a typical month varied between gynaecologists and urologists, with 66% ( $N=53$ ) of the gynaecologists and 46% ( $N=12$ ) of the urologists seeing at least 5 women per month with this problem (Fig. 1).

The number of operations for PCP performed in a typical month also varied between the two specialties, with urologists performing statistically less. Twenty-three per cent ( $N=6$ ) of the urologists performed between 1 and 5 cases in a typical month, compared with 60% ( $N=48$ ) of the gynaecologists ( $p=0.0003$ ,  $\chi^2$  11.1) (Fig. 2).

In an open-ended question on the definition of successful outcome following surgery for PCP, only 12% ( $N=3$ ) urologists and 14% ( $N=11$ ) gynaecologists mentioned sexual function. A larger proportion of urologists (46%,  $N=12$ ) than gynaecologists (37%,  $N=30$ ) included bowel function in their criteria for successful treatment.

When asked about investigations performed for PCP, the majority of the respondents were not using any form of imaging or physiological study (Fig. 3).

Both specialties reported collaborating with other surgical specialties in the operating room, 43% ( $N=34$ ) of the gynaecologists saying they operate with either a surgeon (14%) or a urologist (28%), and 50% ( $N=13$ ) of the urologists operating with a gynaecologist.

## Discussion

A major finding in this study was that PCP is currently being managed differently by urologists and gynaecologists in South Africa. Urologists use significantly more mesh kits and gynaecologists perform more traditional repairs, with only 17% of gynaecologists who responded to this question selecting mesh as a treatment option whereas 58% of the urology cohort used mesh. Both groups appeared to be making minimal use of posterior compartment investigations.

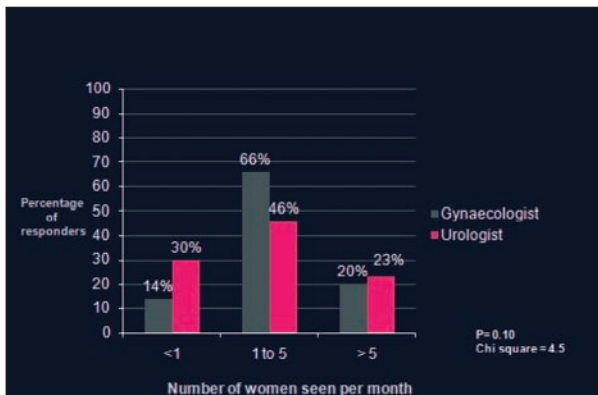


Fig. 1. Number of women with posterior compartment prolapse seen in a typical month.



Fig. 2. Number of operations for posterior compartment prolapse done in a typical month.

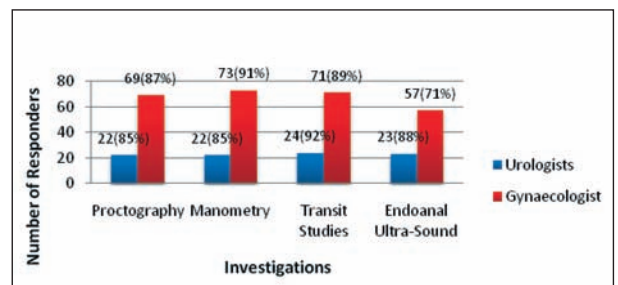


Fig. 3. Number of urologists and gynaecologists who never use certain investigations.

The fact that urologists use more mesh kits may reflect surgical training patterns in their specialty. In South Africa most gynaecology registrars are exposed to the traditional types of surgery at the postgraduate level, whereas this may not be happening in urology training programmes.

Urological surgeons are definitely seeing women with PCP, and it is therefore necessary for them to have the skills to address this condition. Mesh repair kits have only recently been introduced into the country, but nearly two-thirds of urologists use these devices for PCP. Evidence supporting the use of these kits was until recently very scarce.

Only 19% of the gynaecologists would select a mesh as their first choice, whereas 58% of the urology cohort reported that a posterior Prolift, Apogee or Avaulta would be their first choice. The urologists' responses indicated the traditional repair methods were not taught as part of their postgraduate training, leading them to be more receptive to more recent industry-driven methods.

Both treatment modalities have a place in treating PCP, but one should not be limited in choosing one over the other simply because of lack of expertise. Postgraduate teaching therefore plays a vital role in managing PCP in general. We suspect that the traditional training void among urologists has been capitalised on by the industry.

Clinical experience indicates that women seldom present with a pure anatomical posterior compartment defect, and it is more typical for them to have a variable range of pelvic floor symptoms, including bladder, bowel and sexual problems. We believe that PCP can and should be managed by urologists, colorectal surgeons and gynaecologists. The operator must be adequately trained in the full range of procedures so that the correct procedure is performed and patient wellbeing optimised.

The latter point is further emphasised by our study, which showed that none of the urologists performed vaginal hysterectomies for prolapse, most reporting lack of training to be the reason. On the contrary, 80% of the gynaecologists reported that they were still performing vaginal hysterectomy during PCP repair. Vaginal hysterectomy is still considered to be a standard procedure for apical prolapse.<sup>2</sup> It remains an essential operation in the armamentarium of the pelvic floor surgeon.

A study by Anger *et al.*, looking at concomitant prolapse repairs at the time of incontinence surgery, found that urologists add a prolapse operation in 29% of cases, while gynaecologists performed prolapse repairs in 55%.<sup>3</sup> They concluded that early prolapse management by gynaecologists corresponded to fewer prolapse repairs in the year following the sling procedure. They also suggest

that gynaecologists are more likely to identify and manage prolapse at the time of the evaluation of urinary incontinence. The above finding may also be related to the training received by the different specialties.<sup>3</sup>

There has been shown to be a poor correlation between the severity of anatomical prolapse and bowel function.<sup>4</sup> A finding of some concern in our study is the low number of surgeons from both cohorts reporting bowel and sexual function as an important aspect of outcome. We recognise that we investigated this rather crudely in our study, but nonetheless failure to recognise function as an important outcome measure must be guarded against by both specialties.

A major limitation of the study is the overall response rate of 23%. Studies of this nature have been known to have poor response rates, with a similar questionnaire-based study of International Continence Society members reporting a response rate of 34%.<sup>5</sup> A study of anterior repair in South Africa described a response rate of 30.2%.<sup>6</sup> Nonetheless, despite the small numbers and low return rate, we feel that we have made important conclusions.

This study should be repeated using an alternative method of questionnaire rollout such as an on-line or e-mail questionnaire.

The study also did not include the academic centres, limiting the data to the private sector. This may have impacted on the overall results, as treatment options and cost restrictions differ substantially between the private and public sectors.

This study may pose more questions than answers, but we do believe that in the management of PCP in South Africa a broader engagement may be required between urologists and gynaecologists. The issue of postgraduate training in both specialties may also need refinement, so as to allow for an overall improvement in the management of patients suffering from the debilitating condition of PCP.

#### **Conflicts of interest.** None.

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