

## Managing women with complex presentations: How to approach concomitant prolapse and voiding dysfunction

*Cornelius Kelleher, MD, FRCOG*

Consultant Urogynecologist, Guy's and St. Thomas' NHS Foundation Trust, London, UK

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### Abstract

Concomitant pelvic organ prolapse and voiding difficulties (e.g., incontinence) can both be corrected surgically at the same time. Voiding dysfunction secondary to incontinence surgery is uncommon, but does occur even in the most experienced hands. Surgical re-intervention can correct these post-surgical voiding difficulties.

Women with pelvic organ prolapse may have concomitant voiding dysfunction. Although voiding dysfunction following prolapse surgery is uncommon, it can develop or persist secondary to incontinence surgery, which is sometimes performed at the same time as prolapse surgery. The following summary discusses the management of these clinical situations.

### Correcting the prolapse

The primary goal for patients with pelvic organ prolapse is correction of the anatomical defect. At the same time, secondary goals are to maintain or correct bladder, bowel and sexual function.

The correction of the anatomical defect should ideally begin with quantification of the problem, using a tool such as the Pelvic Organ Prolapse Quantification system (POP-Q).<sup>1</sup> Broadly speaking, there are three compartments to consider: anterior, apical and posterior. The location of the defects will direct the selection of surgical approach. Vaginal colporrhaphy, for example, is the preferred choice for anterior or posterior repair. Anterior repairs tend to have a high rate of recurrence, while posterior repairs more frequently provide sustained benefit.

For apical repair, there are more options, including vaginal access techniques (e.g., sacrospinous fixation, uterosacral ligament plication) and abdominal access techniques (e.g., sacrocolpopexy [with mesh] and laparoscopic approaches). The choice of the procedure will depend on several variables, including the comfort level of the attending surgeon. The abdominal/laparoscopic approach may be preferred for younger patients, with the goal of preserving

vaginal access and preventing sexual morbidity. Laparoscopic uterine suspension using the sacral promontory is an appealing option for younger women in that it does not interfere with the potential for future child-bearing. Sacrohysteropexy is another approach for apical prolapse, where mesh is used as the attaching support. This procedure can be accomplished quickly (~45 minutes), and the patient can be discharged the following day.

Importantly, when planning the surgical approach for a patient with pelvic organ prolapse, it is beneficial to use a multidisciplinary approach whenever possible, including a colorectal surgeon. The added perspective provided by these professionals in the context of prolapse can help improve overall outcomes.

Mesh kits are not routinely recommended for repair of pelvic organ prolapse. A high rate of serious complications with these techniques have been reported, which has led not only to caution about their use,<sup>2</sup> but also to extensive litigation by patients and their advocates. Mesh repair can, however, be considered when the benefits to the patient are obvious and after detailed, documented discussion of potential benefits and risks.

### Addressing concomitant voiding dysfunction

While the primary goal in this situation is to correct the anatomical defect of the prolapse, there are situations where the voiding dysfunction can also be addressed. Stress urinary incontinence (SUI), for example, can be surgically treated at the same time. For those patients undergoing prolapse correction with an abdominal approach, SUI can be treated with colposuspension. For those undergoing vaginal prolapse correction, a midurethral tape (e.g., transobturator type) can be inserted.

With respect to patients who have concomitant prolapse and overactive bladder (OAB), one can provide pharmacologic treatment (e.g., antimuscarinics) prior to the prolapse surgery and monitor the patient's symptoms postoperatively. Many patients' OAB symptoms improve following prolapse correction.

### Voiding dysfunction secondary to surgery

Voiding dysfunction as a consequence of prolapse surgery alone is uncommon. However, voiding problems are a possibility following

surgical treatment for pre-existing incontinence, which may be performed at the same time as the prolapse correction.

The incidence of voiding dysfunction after incontinence surgery is variable, depending on the particular intervention. Tension-free vaginal tape has been associated with the lowest rates of postoperative voiding dysfunction (2-4%), while the reported rates following Burch procedures have been more variable (4-22%).

The types of dysfunction encountered in the early postoperative phase include an inability to void, and voiding small volumes with significant residual. The goal in these situations is to try to avoid episodes of significant retention with careful catheter care. Surgical intervention (e.g., loosening or dividing the tape) can be considered, as the best results are obtained in the early post-surgical period. Evidence has shown that simple sling incision is an effective, technically simple, and safe option.<sup>3</sup>

The presentation of urinary tract symptoms in the longer term after incontinence surgery is somewhat more variable. Patients may present with retention, other voiding (obstructive) symptoms, or storage (irritative) symptoms (e.g., frequency, urgency, urge incontinence). Recurrent urinary tract infections are also a possibility.

For patients with storage symptoms, medication may be effective. For those with retention or other voiding problems, intermittent catheterization and watchful waiting may be an option, but surgery is the only definitive intervention.

Sling incision, while not as simple as in the initial postoperative period, is still a straightforward and effective procedure in this scenario. Urethrolisis, with the goal of complete mobilization of the urethra, is another reasonable choice, with a high success rate (65-94%) and low recurrence rate of SUI postoperatively (0-19%).<sup>4-10</sup>

## Conclusions

There are a number of effective techniques available for the surgical repair of pelvic organ prolapse. For many women who have concomitant incontinence, this can be corrected surgically at the same time. Voiding dysfunction following prolapse surgery is uncommon,

but can arise or persist secondary to incontinence surgery. Surgical re-intervention is the only definitive solution to correct these post-surgical voiding difficulties.

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**Correspondence:** Dr. Cornelius Kelleher, 8th Floor North Wing, St Thomas Hospital, Lambeth Palace Road, London SE1 7EH, England, UK; [con.kelleher@gstt.nhs.uk](mailto:con.kelleher@gstt.nhs.uk)