

INTRODUCTION

Pelvic organ prolapse (POP) is a common group of multifactorial gynecological conditions caused by a disruption of the natural support musculature that maintain the structure of the pelvic organs. In normal patients, the levator, muscular complex, and various connective tissues are responsible for maintaining this support structure (1). However, structural alterations can affect the anterior vaginal wall, posterior vaginal wall, uterus, or apex of the vagina leading to POP as anterior and posterior vaginal prolapse, uterine prolapse, and/or enterocele (2).

The effects of POP can range from asymptomatic in nature to urinary, defecatory, and sexual dysfunction. Proper diagnosis can be obtained by following the Pelvic Organ Prolapse Quantification system (POPQ) which ranks stages of prolapse on a scale of 0 to IV. The POPQ allows for a quantifiable evaluation of the measurements of nine areas including the vagina and vulva and their relation to the hymen (1).

The pathophysiology of POP is multifactorial and may occur as a "multiple-hit" process in which genetically predisposed women are subjected to life incidents that result in the development of prolapse. Major risk factors for POP are vaginal childbirth, advancing age, increasing body-mass index, increasing vaginal parity, as well as gravidity and history of hysterectomy (2, 3).

POP is often asymptomatic with occasional patients exhibiting symptoms associated with urinary, defecatory, or sexual dysfunction that can greatly reduce their quality of life. Physical examination of POP should include pelvic and abdominal examination. A Pelvic Organ Prolapse Quantification Examination is advised before POP treatment to objectively evaluate and document the extent of prolapse (4). Treatment options are available for the rare instances when POP leads to complete vaginal eversion (CVE), uterine procidentia (UP), or stress urinary incontinence (SUI).

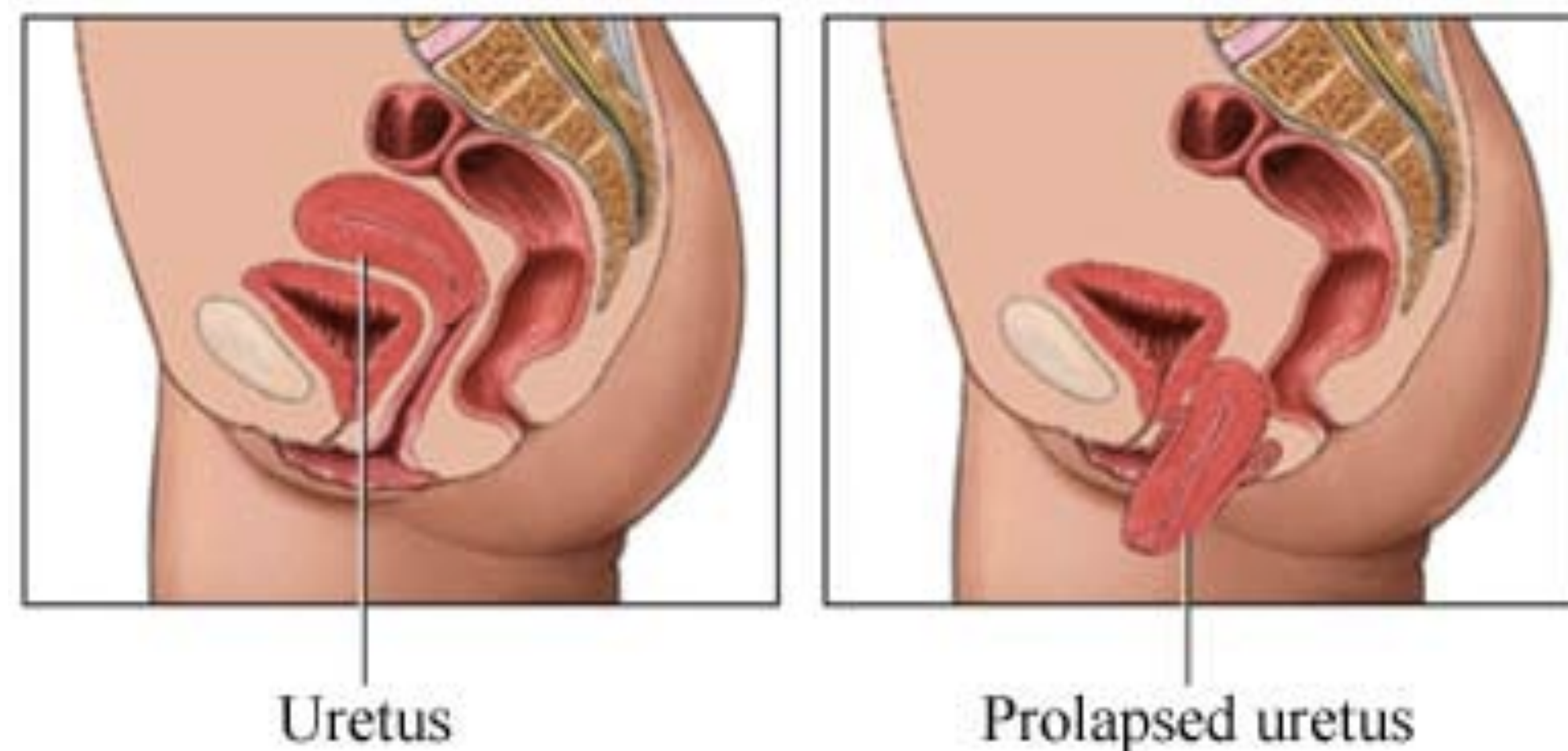


Figure 1: Schematic anatomical cross section of normal and prolapsed uterus. Copyright © Nucleus Medical Media, Inc.

CASE PRESENTATION

A 63-year-old female with a history of stress urinary incontinence, dyschezia, and sexual dysfunction presented with a concern of a "large tissue in her private area", which was observed during urination straining and bowel movements (Figure 1). The patient's husband persuaded her to seek medical advice since he also noticed the prolapse while attempting sexual intercourse.



Figure 2: Vaginal prolapse. Upon inspection, a large tissue was observed in the patient's pelvic region. This prolapse affected multiple genital components.

The patient underwent a complete clinical and uro-gynecological evaluation for her uterine and vaginal prolapses and her urinary incontinence including urodynamic testing. The clinical evaluation and testing suggested that her best chances for condition improvement was to perform a vaginal hysterectomy with uterosacral ligament suspension, and a vaginal wall repair. Surgery was successful and all symptoms were resolved after following up with pelvic floor physical therapy.

CONCLUSION

- Successful treatment:
- vaginal hysterectomy
 - pelvic floor physical therapy

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DISCUSSION

POP affects up to 30% of all women at some point in their lifetime. The assessment of women with POP requires a thorough methodology. POP can be accompanied by various symptoms, while few are specific for prolapse. Therefore, it is difficult for physicians to establish which symptoms are attributed specifically to prolapse, and furthermore, which symptoms will improve after appropriate treatment. A recent study by Reimers et al. reported that the occurrence of POP was associated with pre-pregnancy pelvic floor characteristics rather than with patients' characteristics such as age, height, weight, BMI, gestational age at birth, delivery mode, or fetal weight at birth (6).

There are many different treatment options available. Gynecologists should customize POP treatments based on patient's symptomology, medical comorbidities, and intra-operative risk considerations. Some symptoms of POP may be easily managed by patient's lifestyle modifications. Pelvic floor muscle training (PFMT) can be used to strengthen the levator ani muscular complex and improve the natural support of the pelvic organs. In situations where pelvic floor muscle training is not sufficient, surgical application of vaginal pessaries and mesh or native-tissue may be necessary to facilitate site specific repairs of the pelvic floor (7, 8). For patients who have failed or declined non-surgical treatments, surgery will be advised as a treatment for POP. The use of laparoscopy and other novel surgical techniques has increased dramatically, most likely based on the shorter period of hospitalization, and decreased postoperative pain associated with these treatments (9). In the United States, approximately 200,000 surgical procedures are annually carried out due to POP (10).

The common limitations with POP surgery include bleeding, infection and voiding dysfunction, whereas less common complications include rectovaginal or vesicovaginal fistula, ureteral injury, foreshortened vagina, or a restriction of the vaginal caliber (4). The use of surgical mesh has been associated with POP recurrence in at least 10% of patients regardless of route of mesh placement (11). The overall recurrence rate of POP after surgery varies from 6% to 30%.

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