

CASE REPORT

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Complete vaginal eversion, uterine prolapse, and stress urinary incontinence: A rare case report

Kushal Gandhi, John Garza, Asley Sanchez, Asher George, Sanjana Rao, Gary Ventolini

ABSTRACT

Introduction: Pelvic organ prolapse is a multifactorial gynecological condition, caused by a disruption of muscles of the pelvic organs.

Case Report: A 63-year-old female presented with a history of stress urinary incontinence, dyschezia, and sexual dysfunction. A complete clinical and urogynecological evaluation was performed and diagnoses of uterine and vaginal prolapse and urinary incontinence were made. The patient underwent a vaginal hysterectomy with uterosacral ligament suspension and a vaginal wall repair. The patient's symptoms resolved following pelvic floor physical therapy.

Conclusion: The patient benefited from a vaginal hysterectomy with uterosacral ligament suspension and a vaginal wall repair with subsequent pelvic floor physical therapy treatments.

Keywords: Hysterectomy, Pelvic organ prolapse, Stress urinary incontinence, Vaginal eversion

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INTRODUCTION

As women advance in age, the structural integrity responsible for supporting the pelvic structures begins to wane. One of the most common gynecological conditions associated with advancing age, which affects millions of women in the United States over the age of 65 is pelvic organ prolapse (POP). Typically, POP is defined as disruption of the pelvic musculature which provides structural support to the pelvic organs. In healthy women, various connective tissues, but most importantly, the levator ani is the key skeletal muscle involved in maintaining pelvic organ support [1]. Risk factors for POP include advancing age, increased number of vaginal births, history of connective tissue disorders, race, obesity, menopause, myopathy, neuropathy, and history of hysterectomies. These risk factors may affect the anterior or posterior vaginal wall, uterus, or apex of the vagina which can lead to the collapse of the pelvic organs [2].

The clinical sequelae of POP disorders include urinary incontinence, sexual disorder, and an overactive bladder. The pelvic organ prolapse quantification system (POPQ) has been used in the diagnosis of POP; ranking stages of prolapse on a scale of 0–IV. The POPQ provides a tool for comparing, documenting, and communicating the clinical findings of POP [1, 3].

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The pathophysiology of POP is a “multiple-hit” process in which one or both of the levator ani muscle complex or connective-tissue attachments of the pelvic organs collapse or lose support of the pelvic structures. Pelvic organ prolapse is asymptomatic in some of the patients who had urinary, defecatory, or sexual dysfunction symptoms. Based on the patient’s symptoms, treatment for POP had been advised by the physicians.

CASE REPORT

A 63-year-old female with a history of stress urinary incontinence (SUI), dyschezia, and sexual dysfunction presented with a chief complaint of a “large tissue in her private area,” which was observed while straining during urination and bowel movements (Figure 1). The patient had a history of three uncomplicated term spontaneous vaginal deliveries, with oral contraceptive use between and after all pregnancies, with menopause at 54 years of age. The patient had an uneventful sexual history until the onset of dyspareunia three years prior. The patient had no history of sexually transmitted infections. The patient’s husband persuaded her to seek medical advice since he also noticed the prolapse while attempting sexual intercourse.

The patient underwent a complete clinical and urogynecological evaluation, including urodynamic testing for her uterine and vaginal prolapses and her urinary incontinence. The clinical evaluation and testing suggested that her best chances for condition improvement were to perform a vaginal hysterectomy with uterosacral ligament suspension and a vaginal wall repair. The surgery was successful and all symptoms were resolved after following up with pelvic floor physical therapy. The patient did not have any complications after surgery.



Figure 1: Vaginal prolapse: Upon inspection, a large tissue was observed in the patient’s pelvic region. This prolapse affected multiple genital components.

DISCUSSION

Pelvic organ prolapse is a significant healthcare problem affecting up to 30% of all women at some point in their life,

especially in the aging population [4]. As far as complete eversions are concerned, the incidence is based on studies of surgical interventions. Thus, the incidence of surgery for POP was reported to be between 1.5 and 4.9 cases per 1000 women-years, with the peak incidence affecting individuals aged 60–69 years, occurring in 42.1 per 10,000 women [2]. Assessing women with POP involves a meticulous methodology taking into account an extensive patient history and a thorough gynecologic examination all the while considering the performance of all pelvic compartments. Pelvic organ prolapse can be symptomatic, specifically owing to prolapse. Nevertheless, it becomes difficult for physicians to assess which symptoms are specific to prolapse and which symptoms will improve the quality of life upon treatment. In a recent study by Reimers et al., they reported that POP occurred more frequently in patients with pre-pregnancy pelvic floor characteristics rather than other risk factors such as height, weight, body mass index (BMI), age, mode of delivery, fetal weight at birth or gestation age at birth [5].

Despite the discomfort patients face due to symptomatic cases of POP, there are several treatment options available to provide relief to the patient. As it stands to present day evidence, gynecologists should tailor their intervention based on the patient’s symptoms, associated comorbidities, as well as the possibility of surgical intervention and considering the risks they may impose. Certain symptoms of POP can be easily managed by simple lifestyle modification such as pelvic floor muscle training (PFMT) which strengthens the levator ani muscular complex, garnering natural support from the pelvic organs. When PFMT is not sufficient, surgical intervention using tissue grafts or vaginal pessaries can be used to aid in repairing the pelvic floor muscles [6, 7]. The use of pessaries is typically indicated as an alternative to surgery, in women who are still planning to bear children in the future, have pregnancy-related prolapses, contraindications to surgery, or prefer not to have surgery [8]. It is worth noting that women treated with pessaries should change them on a regular basis. Physicians should advise patients accordingly and if they are not able to change pessaries or maintain hygiene on their own, regular follow-ups are recommended. Additionally, according to a recent practice bulletin put out by the American College of Obstetricians and Gynecologists (ACOG), physicians should be aware that using pessaries adds pressure on the vaginal wall and could potentially lead to local devascularization and erosion of the surrounding structures [8]. In situations where the patients failed or declined non-surgical treatment, surgical intervention such as the use of laparoscopy and other novel surgical techniques can be used to treat POP due to the added benefit of having a shorter hospitalization and less postoperative pain [9]. Surgical intervention for POP is typically delayed and indicated in women once all anticipated childbearing has been met, assuming symptomatic relief via other non-surgical means is viable prior to surgery or in elderly women who elect obliterative surgery and wish to not partake in sexual intercourse [8].

Approximately 200,000 surgical procedures due to POP are done in the United States each year. Following surgery, the recurrence of POP is estimated to be from 6% to 30% [10].

Complications associated with POP surgery include postoperative bleeding, postoperative infection, voiding dysfunction, and more rarely, rectovaginal or vesicovaginal fistulas, restriction of the vaginal caliber, foreshortened vagina, or ureteral injury [8].

CONCLUSION

In some cases, PFMT is sufficient to alleviate the symptoms of POP. When PMFT is not sufficient, then the use of pessaries or surgical intervention is indicated. Careful planning and education is necessary to ensure proper management of POP in the patient's best interests. The primary "take-away" learning point from this case report is that vaginal hysterectomy with uterosacral ligament suspension and a vaginal wall repair and pelvic floor physical therapy proved to be the successful treatment option for the patient in question.

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Author Contributions

Kushal Gandhi – Conception of the work, Design of the work, Acquisition of data, Analysis of data, Interpretation of data, Drafting the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

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Authors declare no conflict of interest.

Data Availability

All relevant data are within the paper and its Supporting

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