

Manchester Repair for the Repair of Third-Degree Pelvic Organ Prolapse in A Young Primipara. A Rare Occurrence and Successful Repair

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ABSTRACT

Background: Pelvic Organ Prolapse (POP) is a significant health issue affecting millions of women globally, primarily those in postmenopausal age groups and those with high parity. It occurs due to weakening or damage to the pelvic floor muscles and supporting structures. While often considered an affliction of older age, POP in young women (typically defined as under 40 years old) presents unique clinical challenges due to its impact on fertility, sexual function and quality of life. The condition in young women and those with low parity presents with peculiar challenges to reconstructive surgeons. These include surgical procedures that spares fertility, as well as high rate of recurrence compared to older cohorts. **Case Summary:** We report a case of a 21-year-old para 1 +0, who's last child birth was 1 year earlier. She presented with a 10-month history of a mass protruding per vaginum, which occurred 2 months after unsupervised vaginal home delivery. Physical examination and imaging studies confirmed the diagnosis of third-degree uterine prolapse. The patient underwent a Manchester repair. She reported significant improvement in her symptoms.

Key words: pelvic organ prolapse, young, primipara, Manchester repair

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Introduction

Pelvic organ prolapse (POP) occurs when weak pelvic floor muscles and tissues allow organs like the bladder, uterus, or rectum to sag or bulge into the vagina.¹ The lifetime risk of POP is 30% to 50%.² Besides causing discomfort and sexual dysfunction, it also affects the quality of life. Pelvic organ prolapse

is a condition where the uterus, rectum, and bladder descend into or protrude out of the vagina. It is more common in postmenopausal women who have undergone vaginal childbirth but can also occur in younger women, particularly those with underlying medical conditions or genetic predisposition.¹⁻³ It follows a direct perineal lesion due to stretching and subsequent sagging, or indirectly from impaired nerve transmission to pelvic floor muscles, and excessive stretching of sacral plexus. Genital atrophy and hypoestrogenism associated with menopause also contribute to the pathogenesis of prolapse, so also are pelvic tumors, sacral nerve disorders, and diabetic neuropathy. Other known associations include obstetric trauma, multiparity, fetal macrosomia, fundal pressure, prolonged second stage of labour and collagen vascular disease.^{2,3} In young women, POP is a rare phenomenon with a unique clinical background. It was postulated to be associated with high immature collagen cross-links, which can be degraded more easily, along with high or increased metalloproteinase activity, making the collagen brittle and susceptible to rupture during childbirth or any cause of increased intra-abdominal pressure.⁴ Pelvic organ prolapse is a major health care problem that has a substantial impact on the quality of women's lives. Women with POP

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symptoms not only experience physical complaints, but also encounter more problems regarding general health, personal, marital relationships, and sexual function.^{3,4} The objective of this case report is to highlight the risk factors of pelvic organ prolapse, especially in young women, discuss the available management options and share the successful outcome of the management in our client.

Case Presentation: A 21-year-old divorced primiparous woman presented to our gynae clinic on 30/10/2025 with a 10-month history of something coming out of her vagina, which occurred 2 months after she had a vaginal delivery at home. The labour was not prolonged, however, there was a history of excessive pushing for three hours prior to delivery. The baby was believed to be large, although accurate fetal weight could not be determined since the delivery took place at home. She experienced associated pelvic discomfort but had no history of constipation or urinary dribbling. There was no previous history of pelvic surgery, chronic medical conditions, or any positive family history. Her last menstrual period was one week before presentation, and she had a regular cycle of 28 days. Physical examination revealed a stage III uterine prolapse without cervical elongation, or obvious cystocele (figure 1). The cervix was visible outside the introitus. The patient had a negative cough stress test.

Her Full blood count revealed a hemoglobin of 7g/dl, but other parameters were within acceptable limits. Blood sugar and urinalysis, liver and kidney function tests were all within normal limits. A sonography was done showing a normal uterine contour with an increased cervical length of 3.9cm. Her conditions were explained to her, and the need to have fertility-conserving surgery was discussed. She consented to having a Manchester repair. Her hemoglobin was optimized, and she had the procedure done. Under spinal anesthesia, she was placed in the lithotomy position, she was cleaned and draped. Her urinary bladder was emptied with a catheter. Her cervix was dilated and the uterine cavity sounded. The cervical lips were grasped with a pair of vulsellum forceps, and a circular incision was made in the vaginal wall around the cervix. Uterocervical length was found to be 12cm. The vaginal mucosa was carefully dissected and separated from the bladder, pushing the bladder upwards to expose the cardinal and uterosacral

ligaments. This step helps avoid injury to the bladder and ureters. The elongated part of the cervix was amputated at the level of the cardinal ligaments, leaving a healthy cervical stump. The patency of the remaining cervical canal is confirmed to ensure proper drainage using size 6 Hegar's dilator. The cardinal ligaments were plicated and sutured to the anterior wall of the remaining cervical stump using Vicryl 2 suture material. This action pulls the cervix backward and upward into its correct position, changing the angle of the uterus in the pelvis to an anteverted position. Anterior colporrhaphy was done to correct a cystocele. The cervical stump is then covered by the vaginal mucosa using a modified Sturmdorf technique, which approximated the vaginal epithelium to the edge of the cervical canal. A posterior colpoperineorrhaphy was also done. The bladder was catheterized and the vagina packed with povidone iodine-soaked pieces of gauze (figure 2) which were removed 6 hours post-operatively. She was placed on antibiotics and analgesics. The patient remained stable. Her post-operative Hb was 11g/dl. She was discharged on the 5th days post operative day with no complaints and vaginal findings revealed normal pelvic anatomy (figure 3). She was given a week's appointment to the gynecology clinic. She was assessed to be stable with no complaints. The histology result revealed no pathology. Subsequent review 4 weeks later found no complaints and pelvic examination revealed normal vulvo-vaginam with normal closed external cervical os and normal sized anteverted uterus.



Fig 1: Shows third-degree pelvic organ prolapse; prior to the surgery



Figure 2



Fig 2: Shows the perineum after Manchester repair with vaginal gauze packing and urethral catheter.

Figure 3



Fig 3: Shows the healing perineum, prior to patient's discharge.

Discussion:

Pelvic organ prolapse in young women is rare. The prevalence increases with age until about 50 years and remains stable afterwards.³ The predisposing factors for POP in young women as studied by Norton included race, family history, ethnicity, lifestyle changes and previous vaginal deliveries.³ It has been postulated that there is a significant reduction in the protein content and estrogens in the uterosacral ligaments, vagina, and parametrium of women with prolapse. This may explain the high recurrence and failure rates observed in younger patients.⁴ Beyond these epidemiological observations, genotypic variations were found in women belonging to families with a high incidence of prolapse.⁴⁻⁶ Our client however reported no family history of POP and none of the above factors could be associated with our patient.

Our patient had a third-degree POP using the Baden-Walker Halfway classification system. She wished to remarry and hence needs fertility-preserving reconstructive surgery. She was assessed and counselled for Manchester repair. Her laboratory parameters were normal except for hemoglobin, which was corrected. She was stabilized and had a Manchester repair. Management of pelvic organ prolapse, especially in young women, constitutes a

great challenge, because treatments must prioritize the preservation of fertility and sexual function while providing durable anatomical results.⁷ The challenges include, but are not limited to, preservation of fertility and sexual function, high risk of recurrence, limited evidence-based guidelines, and complex treatment decisions.⁸ The challenge in this patient was to have a fertility sparing surgery, with the only possible options being sacrohysteropexy and Manchester repair. Our client opted for and had the later. Most traditional procedures were designed for older, postmenopausal women and often involved hysterectomy or other interventions that might not be suitable for younger patients.

Pelvic organ prolapse can have a significant impact on a young woman's body image, self-confidence, and overall quality of life, which can lead to emotional distress and avoidance of medical attention due to embarrassment.⁹ Our client's divorce might not be unrelated to her POP.

Management often begins with less invasive options such as lifestyle modifications, pelvic floor muscle training (physical therapy), and the use of a vaginal pessary, particularly if the woman plans future pregnancies and when the degree of the prolapse is



less. If surgery is necessary, native tissue repairs or uterine-sparing procedures like sacrohysteropexy and Manchester repair might be considered, with the understanding of potential recurrence and the need for future treatment. The Manchester Repair (or Fothergill procedure) involves amputating the elongated cervix, plicating (tightening/folding) the cardinal and uterosacral ligaments to support the cervix, reforming the cervical canal, and often performing an anterior and/or posterior vaginal repair (colporrhaphy) to fix bulging walls, effectively lifting the uterus and strengthening pelvic support.¹⁰ Our client had all the components, with the prolapse effectively corrected and the pelvic floor repaired following the procedure. She made a remarkable improvement and was discharged a week after the surgery. Pelvic examination on follow-up visits confirmed successful repair. She was counselled on contraception and elective caesarean section in subsequent pregnancy. Sacrohysteropexy is an option for our client but it is associated with higher recurrence rate.

Pelvic organ prolapse can have a significant impact on a young woman's body image, self-esteem, and overall quality of life. Manchester repair is a fertility-preserving surgery for correction of POP and offers hope for future pregnancy in young clients.

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Conflict of interest;

We declare no conflict of interest.

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