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# PREGNANCY AFTER SURGICAL TREATMENT OF PROLAPSE

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## ABSTRACT

The occurrence of genital prolapse in women under 50 is uncommon. Surgical treatment represents the last resort for a young patient who has not completed her obstetric plans, after attempting medical treatment with unsatisfactory results. Patient awareness regarding the risk of recurrence is essential. Surgical treatment via the vaginal route with preservation of the uterus and without intervention on the cervix may be a preferred method. The use of prostheses should be avoided due to significant potential side effects (such as erosion, dyspareunia, etc.). Surgical treatment of prolapse through laparoscopic approach is currently the most practiced technique by surgeons, offering many advantages and fewer disadvantages (low risk of recurrence, efficacy, etc.). The occurrence of pregnancy after prolapse treatment is discouraged, with tubal ligation often recommended during surgical intervention. If pregnancy does occur, it often reaches full term, with prophylactic cesarean section being the most recommended mode of delivery.

**KEYWORDS:** Young woman, genital prolapse, desire for pregnancy; pregnancy; prolapse treatment, vaginal route, laparoscopic approach, delivery term, recurrence.

## INTRODUCTION

Genital prolapse is defined as a herniation of the pelvic organs into or outside the vagina.[1] It is a common condition among postmenopausal women, yet pelvic floor disorders can also occur in much younger women, with an incidence estimated at 34.5% among women under 50 years old.[2] Surgical management of prolapse remains a significant debate, especially if the patient has not yet completed her reproductive plans.

When a pregnancy occurs after surgical treatment of prolapse, several questions arise: What is the impact of prolapse surgery on subsequent pregnancies? What are the recommendations for managing the pregnancy? What is the recommended mode of delivery? What is the risk of recurrence? This article describes the case of a woman who experienced an uneventful pregnancy and delivery following a laparoscopic lateral suspension.

## CASE REPORT

### Patient History

Patient, 32 years old, with no significant medical history, who has had three vaginal deliveries with fetal weights between 3300 and 4100 grams, and who developed gestational diabetes during the last two pregnancies. She underwent correction of vaginal prolapse by lateral fixation. The patient presents at 38 weeks and 3 days of amenorrhea for a prophylactic cesarean section.

### Cilincal History

One year before this pregnancy, the patient complained of a sensation of a vaginal mass, with discomfort when standing, walking, and during sexual intercourse, associated with urinary symptoms such as frequent urination.

#### *Clinical finding*

Clinical examination reveals an obese patient weighing 92 kg with a BMI of 32. Vulvoperineal inspection shows nothing particular, specifically no vulvar gaping. Speculum examination reveals a healthy-looking cervix, and examination with a speculum and POPQ assessment shows a grade 2 cystocele, a grade 3 uterine prolapse, and no rectocele. The Bonney test is negative. Muscle testing and anal sphincter function are normal, as well as anoperineal sensitivity and reflexes.

#### *Paraclinical Examination*

Pelvic ultrasound revealed an anteflexed and anteverted uterus of normal size with a homogeneous echotexture, an endometrial thickness of 13 mm, and normal adnexa. The cervical-vaginal smear and the cytobacterioligical urine exam were normal.

#### *Therapeutic Intervention*

Since the patient did not desire future pregnancies, a surgical treatment was proposed. The procedure involved fixing a prosthesis to the anterior surface of the uterine isthmus, with the

two arms of the mesh passing subperitoneally and fixed to the skin. The surgical procedure was uneventful, and the hospital stay lasted three days. The results were satisfactory, and the postoperative course was unremarkable.

The subsequent pregnancy occurred one year after the laparoscopic intervention. The patient presented at 19 weeks of amenorrhea for follow-up of this unplanned pregnancy (which occurred while on the pill). The pregnancy progressed without any particular issues, except for gestational diabetes managed by diet and lifestyle measures. Ultrasound follow-ups showed no abnormalities. A scheduled cesarean section at 38 weeks and 4 days of amenorrhea resulted in the birth of a healthy newborn with a normal weight. During the surgical exploration of the cesarean, a cut in the mesh was discovered, (figure 1), explaining the recurrence of the prolapse. Tubal ligation was performed with the couple's consent. The postpartum period was uncomplicated, and a follow-up consultation was scheduled in three months to reassess the prolapse and plan a surgical intervention.

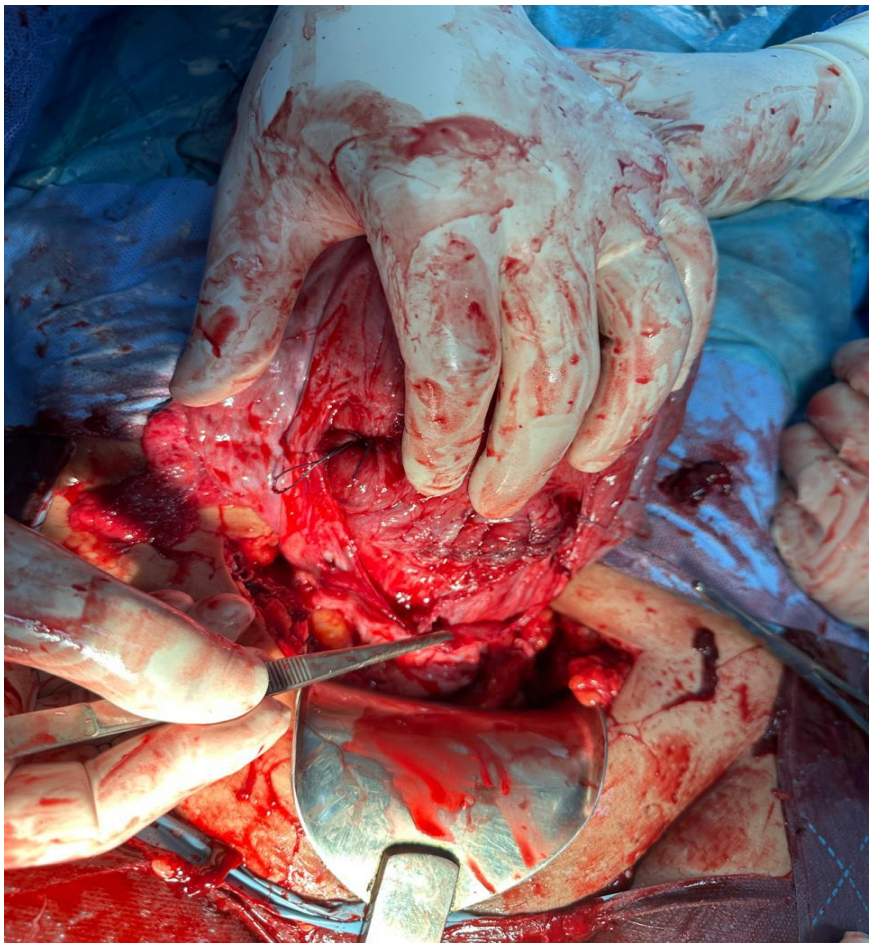

**Figure 1: A photo showing a polypropylene sling cut visualized during a cesarean section.**

## DISCUSSION

The management of pelvic organ prolapse in premenopausal patients who have not completed their obstetric plans primarily relies on conservative treatments, such as the use of pessaries, while surgery is strongly discouraged.[3] This is due to the risk of symptom recurrence during or after pregnancy, as well as the risk of displacement, dislocation, or infection of prostheses, which can cause discomfort during pregnancy.[4] Therefore, any young patient considering surgical treatment for prolapse should be informed about the possibility of not having children anymore and be offered tubal ligation during the surgical procedure. In cases where surgical treatment of prolapse is indicated, the choice is between laparoscopic and vaginal approaches. The vaginal approach is characterized by minimal trauma, simple postoperative recovery[6], a short hospital stay, rapid return to daily activities[7], and a low risk of intra-abdominal complications. The Manchester and Richardson techniques are commonly used, although the Manchester technique is less recommended due to the risk of fertility alteration and subsequent obstetric complications. In contrast, the Richardson technique, which does not require cervical amputation, is preferred as it preserves fertility and allows for future pregnancies.[8] The decision regarding the mode of delivery should be made in consultation with the patient, in the absence of specific recommendations to date.[9] Although vaginal delivery is feasible, some authors believe it may increase the risk of prolapse recurrence. Therefore, cesarean section is often performed after prolapse repair surgery.[10]

In France, these two traditional surgical techniques are being replaced by more innovative methods, which are associated with a lower recurrence rate.[11,12] Apart from promontofixation, some medical schools are adopting laparoscopic techniques to treat prolapse in young patients while preserving the uterus. For instance, laparoscopic hysteropexy with uterosacral ligament plication has been described and performed in 43 patients by Maher.[13]

Despite the various variations of the technique, all studies agree that this type of correction has demonstrated its effectiveness in the medium and long term, which is essential for the treatment of young women. The rate of improvement in pelvic static disorders reaches over 78%.[14,15]

The association with a Burch intervention during the same operation may favor the development of secondary rectocele.[16] Thus, some authors argue that in cases of promontofixation without Burch, the use of a posterior prosthesis is unnecessary.[17] Other

current concerns regarding this surgical technique primarily revolve around simplifying laparoscopic procedures, particularly with robotic assistance to enhance surgical precision.[18,19][35] Improvements also focus on enhancing the quality of prostheses to reduce operative comorbidities.[20]

Furthermore, the postoperative complication rate regarding physical and sexual comfort (dyspareunia, erosion, etc.) is lower after laparoscopic surgery compared to vaginal surgery with a prosthesis. Indeed, numerous studies have been published on this subject in recent years: Benhaim et al. estimated that 26% of patients experienced a deterioration in their sexual life after the placement of polypropylene vaginal prostheses; Milani et al. reported a dyspareunia rate ranging from 20% to 63% after the implantation of a Prolene-type prosthesis, leading them to conclude that this type of prosthesis is no longer recommended.[21,22] According to the literature, the average gestational age at delivery for pregnancy after surgery was 39 weeks and 1 day, with no cases of prematurity attributed to this intervention mentioned. The most frequently recommended mode of delivery after pelvic static surgery is cesarean section.[5]

## CONCLUSION

The debate between laparoscopic and vaginal approaches remains open for women desiring uterine preservation. While the Manchester technique has limited indications due to the risk of infertility it poses, the Richardson technique still appears suitable for women desiring pregnancy and presenting with isolated uterine prolapse. Indeed, although recent studies unanimously support the excellent outcomes of promontofixation, current surgeons cannot rely solely on mastering laparoscopic or laparotomic techniques but must also be capable of offering correction via the vaginal route. Regardless of the surgical approach used, the long-term risks of recurrence in young women are not negligible, and patients should be clearly informed of these risks during preoperative consultation. The proposed mode of delivery is a scheduled cesarean section.

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