



# Uterine prolapse management in two primigravid women after vaginal delivery: Case report

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## ABSTRACT

Pelvic organ prolapse during pregnancy is a rare condition. There are several case report studies in the literature on this, especially in patients with nulliparity. We presented the management and post-surgical follow-up of a case of pelvic organ prolapse that developed during pregnancy and immediately after delivery in two patients. Both of our patients with descensus uteri were young (26 and 27 years old) and had normal body mass index values, with no family history, no risk factors, and no history of trauma. Conservative treatment was preferred for our patient who was diagnosed with descensus in the third trimester of pregnancy. Pelvic organ prolapse did not regress after childbirth, as was expected. Although descensus occurred at the end of the third trimester of pregnancy in the first case, it developed during and immediately after delivery in the second case, and there was no regression there after in either case. The cervix protruded from the hymenal os in both patients' postpartum 4<sup>th</sup>-month controls, this had a significant impact on the patients' sexual, social, and psychological lives. Both patients had a desire to have children. Suspension surgeries using Mesh and Tape were not preferred because of the negative effects of synthetic suspension materials on the next pregnancy. Both patients underwent laparoscopic round ligament shortening and Sacrouterin ligament plication surgery. The patients were told that these operations were not permanent and that there was a possibility of sagging again afterwards. After the operation, the patients were followed up for about 2 years. In one of the patients, recurrence developed in the 19<sup>th</sup> month, 1 cm above the hymenal os. Although descensus uteri are rarely observed in young patients, the knowledge of the literature is quite limited. Unfortunately, there is no literature available to guide clinicians in the management and treatment of such health problems in young patients who want to have children. Therefore, multicenter studies including more patients are needed.

**Keywords:** Case report; pregnancy; primigravid women; uterine prolapse

## INTRODUCTION

Uterine prolapse that develops during the first pregnancy is a very rare condition. Its incidence varies between 1/10,000-15,000.<sup>1</sup> Pelvic organ prolapse (POP) during pregnancy brings both maternal and fetal health problems.<sup>2</sup> The most important

etiological cause of POP is vaginal delivery. However, this health problem leads to psychosocial, economic and sexual disorders.<sup>3</sup> In young patients (especially those under 30 years of age), uterine prolapse, especially matrix metalloproteinase-1 (MMP-1) expression disorder<sup>4</sup> or collagen metabolism abnormality<sup>5</sup> comes

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to mind. There are different approaches to the management and treatment of POP: Conservative (pessary treatment), and surgical treatment.<sup>6</sup> In the cases we have presented, both patients are under the age of 30. In the first patient, uterine descensus occurred in the third trimester of pregnancy and was successfully managed. In the second patient, it occurred during and immediately after the delivery.

## CASE REPORTS

### Case 1

A 26-year-old patient with gravide 1 parite 0 applied to us at the 35<sup>th</sup> week of pregnancy due to vaginal spotting. The patient has no previous history of abdominal or vaginal surgery. No health problems were detected during the gestational period controls and there were no accompanying diseases. When the patient was admitted to us with vaginal spotting, she was at 35 weeks +6 days of gestation and on ultrasound, a live fetus with fetal biometry of 35+2 days, fetal heartbeats, normal amniotic fluid, and localized in placenta fundus was observed. The applied non-stress test was reactive and no contraction was observed in the toco. Collum close effacement was not observed in the vaginal examination, however, it was observed that the collum was hymen level and was eroded and bleeding due to irritation. Antibiotic treatment and pessary treatment were recommended to the patient with uterine prolapse. The patient did not accept pessary treatment. The pregnant patient applied with groin and lower back pain to the clinic when she was 38 weeks and 4 days pregnant. The examination revealed that the patient had 5-6 cm cervical dilation and 70-80% cervical effacement. It was observed that the cervix was protruding from the hymen. The patient gave birth to a 3260 gr baby girl with APGAR 8 in the 2<sup>nd</sup> minute without intervention. The placenta and its appendages were separated spontaneously. The patient was called for control 1 week, 40 days and 4 months after delivery. During the controls, the cervix was found to protrude 2 cm more than the hymen (Figure 1), and medical (pessary) or surgical treatment was recommended. The patient did not accept pessary treatment. Considering that the patient was 26 years old, sexually active and wanted a second child, laparoscopic shortening of the ligamentum rotundum + ligamentum sacrouter plication was recommended as surgical treatment. Ligament rotundum shortening + ligament sacrouterin plication was applied to the patient. No recurrence was observed in the patient who was followed up for 2 years postoperatively Figure 2.

### Case 2

A 28-year-old patient with gravide 1 parite 1 applied to our clinic with a palpable mass in the genital area. It was reported that

4 days before her anamnesis, she had a spontaneous vaginal delivery at 39 weeks + 4 days. It was learned that she did not experience any health problems during her pregnancy controls, did not undergo pelvic or abdominal surgery, and gave birth comfortably, in a short time, and without intervention. The



Figure 1. Examination 4 months after delivery



Figure 2. Control two years after operation (shortening of the ligamentum rotundum + ligamentum sacrouter plication)

patient's body mass index (BMI), who had no history of pelvic and abdominal surgery and trauma, was calculated as 22.8. The patient said that her complaint had been present for 2 days, and that she had felt something light immediately after giving birth, but that these complaints had increased. In her vaginal examination, it was observed that the cervix had protruded 2 cm from the hymen line. Uterus suitable for puerperium was observed on ultrasound and bilateral ovaries were normal. A pessary was recommended to the patient and patient accepted. On the 40<sup>th</sup> day and 4<sup>th</sup> month, despite the use of pessary and uterine involution, it was observed that the cervix protruded 1 cm from the hymenal line. Considering the patient's age, sexual activity, and the desire for a second child, continued use of the pessary or laparoscopic ligament Rotundum shortening + plication of the ligament sacrouter was recommended. Since the use of pessary affected her psychologically and negatively affected her sexual life, the patient preferred the surgical procedure and the procedure was performed. The patient who had a recurrence in the 19<sup>th</sup> postoperative month (1 cm above the cervix hymen line) was recommended to use a pessary until she considers a new pregnancy (Figure 3).

## DISCUSSION

POP is a common condition in postmenopausal and multiparous patients. The most important causes may be pelvic trauma, family history, advanced age, high BMI, interventional birth,



**Figure 3.** Recurrence in the 19<sup>th</sup> month after operation. Cervix 1 cm above the hymenal line

collagen metabolism disorders, MMP-1 expression disorders, Marfan syndrome, Ehlers-Danlos syndrome and other causes.<sup>7</sup> However, in this article that we have presented, both patients are young and do not have the aforementioned predisposing risk factors and histories. The main structure of the uterine ligaments consists of collagen. Mutation in collagen genes can cause the ligaments of the uterus to become very weak.<sup>8</sup> We think that both of our patients have a gene mutation of collagen or matrix tissue. Pelvic organ (POP) treatment is examined in two groups medical (pessary treatment) and surgical.<sup>6</sup> Complications of uterine prolapse include the threat of fetal miscarriage, preterm labor, maternal urinary infections, maternal and fetal death<sup>9</sup>, infection due to cervical erosion resulting in cervical dystocia, and cervical tears that may extend to the uterus during delivery.<sup>10</sup> For this reason, some authors argue that it would be more appropriate to recommend cesarean delivery to patients with uterine prolapse during pregnancy. Regarding the management of uterine prolapse during pregnancy, most authors recommend conservative monitoring until the end of delivery and, if necessary, antibiotic treatment for cervical erosions.<sup>11</sup> Because the descensus uteri usually regresses spontaneously at the end of the postpartum puerperium period.<sup>10</sup> There are data in the literature on performing laparoscopic hysteropexy for the descensus uteri that occurs during pregnancy,<sup>12</sup> however, this issue is highly controversial. Both patients we presented had apical prolapse and there was no regression in their 4<sup>th</sup>-month postpartum controls. The patients stated that their disease affected their social and sexual life negatively, and both of our patients wanted a second pregnancy. For this reason, sling surgery treatment applied to patients using tape or polypropylene Mesh was not preferred. Round ligament shortening and sacrouter ligament plication are still controversial issues in the literature because these procedures provide short-term benefits and the recurrence rate is high.<sup>13</sup> If longer-acting surgical methods would be preferred, it was not preferred to use Tape or polypropylene Mesh to avoid negative effects for the next pregnancy and detailed information was given to the patients about the situation. Unfortunately, there is still not enough information in the literature about sling operations performed using Mesh or Tape.

## CONCLUSION

Although there are short case reports in the literature, there is not enough information about the management and treatment of uterine descensus during pregnancy. In addition, when we searched the literature, we could not find sufficient information about the treatment modalities of patients under the age of

30 with descensus uteri who want to have a child. Multicentric studies with a large number of patients are needed in this regard.

## ETHICS

**Informed Consent:** Permission was obtained from the Ethics Committee of Koru Ankara Hospital.

**Peer-review:** Internally and externally peer-reviewed.

## DISCLOSURES

**Financial Disclosure:** The author declared that this study received no financial support.

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