Management of Labor Complicated with Extensive Uterine Prolapse

İleri Derece Uterin Prolapsuslu Olguda Aktif Doğum Eyleminin Yönetimi

Uterin Prolapsuslu Olguda Doğum Yönetimi / Uterine Prolapse During Active Labor

Emre Göksan Pabuçcu[1], Bekir Sert[2], Mahmut Kuntay Kokanalı[3], Ömer Dai[4], Harun Egemen Tolunay[4]
[1]Ufuk University School of Medicine, Department of Obstetrics and Gynecology, Ankara, [2]Karaman State Hospital, Department of Obstetrics and Gynecology, Karaman, [3]Zekai Tahir Burak Women Research and Education Hospital, Ankara, [4]Ankara University School of Medicine, Department of Obstetrics and Gynecology, Ankara, Turkey

Özet

Belirgin uterin prolapsusu olan aktif doğum eylemindeki olguların yönetimi zorlu olabilmektedir. Gerekli önlemlerin alınmaması halinde tehlikeli sonuçlar ortaya çıkabilir. Eylemdeki prolapsus olgularının bir kısmı sorunsuz olarak normal vajinal doğumla sonuçlansa da, yetersiz servikal açılma ve servikal distosi gibi olumsuz birtakım sonuçlar da karşımıza çıkabilir. Özellikle büyümüş ve ödemli bir hal almış serviks nedeniyle doğum süreci ilerlemeyebilir ve distosi meydana gelebilir. Bu olguların yönetiminde sezaryen, hem fetus hem de anne için güvenilir ve makul bir seçenek olarak durmaktadır. Aynı zamanda, sezaryen esnasında etkili redüksyon uygulanarak anatomik bütünlük kolaylıkla sağlanabilir. Sezaryen ile doğumdan sonra pelvik tabanın kendiliğinden düzelmesi ihtimali olduğundan, sezaryen esnasında prolapsusa yönelik bir girişimde bulunmak yerine pelvik anatomik bütünlüğün derlenmesi sonrası gerekirse bir operasyon düşünmek makul gözükmektedir. Bu vaka sunumunda, doğum eylemindeki bir uterin prolapsus olgusunun başarılı yönetimi literatür eşliğinde tartışılmıştır.

Anahtar Kelimeler

Uterin Prolapsus; Gebelik; Doğum; Sezaryen

Abstract

Management of severe uterine prolapsus during active labor is challenging. Detrimental complications are inevitable unless preventive measures have been taken. Active labor may result with uneventful vaginal delivery, nevertheless impeded cervical dilation, cervical dystocia and obstructive labor are all potential outcomes. Enlarged and edematous cervix accompanying prolapse in such cases may obstruct course of labor and may result with dystocia. In this instance, C-section stands as feasible and safe option for both mother and the fetus. Also, it is more likely to provide normal anatomic texture during C-section with effective prolapse reduction. Moreover, spontaneous resolution of the uterine prolapse is possible following C-section and considering suspension procedures till complete recovery of the pelvic anatomy seems reasonable. In this case report, succesful management of an active labor complicated with extensive uterus prolapse have been described along with current literature findings.

Keywords

C-Section; Delivery; Labor; Pregnancy; Prolapse

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Corresponding Author: Emre Göksan Pabuçcu, Ufuk University School of Medicine, Department of Obstetrics and Gynecology, Ankara, Turkey.
GSM: +905324147844 E-Mail: pabuccu@hotmail.com

Introduction

Uterine prolapse during pregnancy is a rare complication with an estimated incidence of a case per 10 000–15 000 deliveries [1]. It may occur during pregnancy de-novo or factors may contribute to pre-existing prolapse. Management of prolapse during pregnancy, especially during active labor seems novel as complications may inevitable unless preventive measures have been considered. Current case report demonstrates a severe uterine prolapse during active labor in a multiparous woman and intends to discuss available management options.

Case Report

Thirty-six years old woman (gravida 4, para 3) presented to our emergency obstetrical care unit with regular uterine contractions during the 38th week of her gestation. Her obstetrical and medical history was unremarkable except for persistent anemia. She had refused hospitalization for further examinations 2 months ago when she first admitted to hospital with complain of growing prolapse and she disregarded subsequent routine follow-up despite all notifications. On her pelvic examination, the entire cervix was diffusing outside the vulva (Pelvic Organ Prolapse Quantification System-POPQ stage 3). The cervix was enlarged and odematous with marked ectropion (Fig. 1). Cervical dilatation of 3 cm and effacement of 40-50% was noted. Cardiotocography of the fetus was considered as reactive along with regular uterine contractions. Amniotic membrane was thought to be intact. Following obstetric ultrasound, fetus was considered as appropriate for gestational age with estimated fetal weight of 3000 g. Laboratory parameters were unremarkable except for severe anemia. As for initial intervention, manual reduction of the prolapse was planned under mild sedation, however we failed to remove enlarged odematous cervix. After confirming impeded cervical dilation, suspected cervical dystocia and obstructive labor, C-section was decided. Reduction of the prolapse was also attempted intraoperatively under regional anesthesia to provide anatomic integrity in order to avoid high myometrial incision and was succeeded with concurrent action of pushing the cervix from the vagina and suspending the uterus from Round ligaments. After providing anatomic texture, she delivered a 2980 gr healthy infant with APGAR score of 1'8 and 5'9 by low segment transvers incision.



Figure 1. Enlarged and odematous cervix



Figure 2. Postoperative appearance of prolapse

Postoperative appearance of the uterine prolapse is shown in the figure 2. She was discharged uneventfully on the third day of the operation. Final degree of the prolapse was considered as POPQ stage 2.

Discussion

Pregnancy dynamics including biomechanical, neurological and neuro-muscular changes obviously alter the supportive tissue of the pelvis and may result with pelvic floor dysfunction. The physiologic increases in cortisol, progesterone and relaxin, which lead to a concomitant softening of pelvic tissues, can also contribute to prolapse formation [2]. Uterine prolapse is one of the common gynecologic disorders among all pelvic floor disorders, despite low prevalence during pregnancy [1]. In pregnancy, prolapse generally appears during the third trimester and disappears after delivery; whereas preexisting prolapse usually resolves spontaneously during pregnancy [2].

Total uterine prolapse during active stage of labor is another challenging clinic and have been linked with severe intrapartum and/or postpartum complications. Cervical dystocia, laceration, uterine rupture, prolonged labor, need of instrumental delivery, postpartum hemorrhage and uterine atony are all potential detrimental consequences [3]. Such edematous prolapsed cervix along with fibrotic changes not only prohibits manuel reduction, but also obstructs labor by altering cervical dilatation during the second stage. As needed, Dührssen incision in the presence of cervical dystocia seem as an option as reported previously [4], however clear risk of extensive bleeding due to extremely fragile and edematous cervix following incision is evident. In the present case, C-section delivery was decided rather than other

interventions in the presence of large fibrotic cervix in order to avoid cervical lacerations and lower segment uterine atony.

Various techniques during different gestational periods have been reported for uterine prolapse cases. Laparoscopic modified Gilliam suspension in early pregnancy, abdominal hysteropexy using rectus sheath strips during c-section, c-section with bilateral hypogastric artery ligation and even c-section hysterectomy with subsequent suspension of the vaginal cuff have been reported in the literature [2, 5-7]. In this case report, we did not decide on performing an additional procedure besides C-section due to rapid recovery of the uterine fundus into the pelvis within a few weeks after delivery and we observed significant resolution as described previously [5]. Therefore, concurrent suspension procedures at the time of delivery may be unsuccessful and could be postponed until complete recovery of the pelvic floor. It should also be noted that, C-section itself has been considered as a preventive measure to preclude pelvic organ prolapse and data from a national cohort study has further justified this hypothesis even in long term duration [8,9].

In conclusion, management of the uterine prolapse during pregnancy should be individualized depending on the severity of the condition and the patient's symptoms. Early diagnosis is essential to avoid maternal and fetal complications. Manuel reduction of prolapsed cervix should be considered firstly. Especially for severe cases, it would be more logical to consider C-section priorly either near term or during active labor. Additional invasive procedures should be avoided unless there are life-threatening complications. Concurrent suspension procedures are also debatable since there is a chance of spontaneous resolution and may be postponed until complete recovery of the pelvic anatomy postnatally.

Competing interests

The authors declare that they have no competing interests.

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