



Successful Management of Cervical Elongation During Pregnancy And Labor: A Case Report



Nasim Shokouhi¹, Zeenat Ghanbari², Nafiseh Saedi^{1*}

1. Department of Obstetrics and Gynecology, Tehran University of Medical Sciences, Yas Hospital, Tehran, Iran.

2. Department of Obstetrics and Gynecology, Tehran University of Medical Sciences, Vali-e-Asr Hospital, Tehran, Iran.

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ABSTRACT

Uterine prolapse and cervical elongation are rare conditions that can complicate pregnancy, labor, and its management. To minimize complications, proper management of this condition is necessary. A 26-year-old woman referred to our outpatient clinic with a lump protruding from her vagina. She was 16 weeks pregnant. Physical examination revealed uterine prolapse and cervical elongation, so to prevent the complications of the protruded cervix, a pessary was inserted. She had the pessary during the first stage of labor until the rupture of membranes (at 6 cm cervical dilatation). After removal of the pessary, although the cervix was out of introitus, the active phase of labor initiated and a normal vaginal delivery was done. New-onset prolapse during pregnancy with more probability is due to cervical elongation. During labor and delivery, this condition could be managed with conservative methods, including pessary placement. and this condition could be managed with conservative methods including pessary placement during pregnancy and labor.

Introduction

Uterine prolapse is a rare condition with an incidence of 1 per 10000 to 15000 population [1]. In recent years, uterine prolapse during pregnancy has been decreased because of the reduction of parities [1]. Urinary tract infection, urinary retention, cervical ulcer-

ation, abortion, and preterm labor could be complications of uterine prolapse during pregnancy [2, 3].

Increased number of parity, vaginal delivery, advancing age, obesity, and chronic constipation are among the risk factors of uterine prolapse during pregnancy [4-6]. Previously, conservative management consisted of bed rest in Trendelenburg's position during pregnancy

* Corresponding Author:

Nafiseh Saedi, PdD.

Address: Department of Obstetrics and Gynecology, Tehran University of Medical Sciences, Yas Hospital, Tehran, Iran.

E-mail: nsaedi@sina.tums.ac.ir

[3]. Nowadays, the placement of pessaries after prolapse reduction is recommended to reduce the risk of cervical ulceration [2].

There is no standard guideline for the management of this rare condition during pregnancy. Management options in the literature vary from conservative management to hysterectomy after cesarean section [7]. This case report presents a case with uterine prolapse and cervical elongation during pregnancy, who treated by pessary replacement.

Case Presentation

A 26-year-old woman, gravida 2, para 1, referred to the outpatient clinic at 16 weeks of gestation with a lump protruding from her vagina. She had uncomplicated vaginal term delivery three years ago with no history of pelvic organ prolapse during pregnancy and her postpartum period. Physical examination revealed uterine prolapse and cervical elongation (D point: -7, C point: +5, and TVL: 8) based on Pelvic Organ Prolapse Quantification (POP-Q) staging system. The rest of the POP-Q exam was not done due to the mother's reluctance to push down. The cervix was hypertrophied without any ulcer. After counseling, a number 4 ring pessary with support was inserted.

She had no complication till 32 weeks of gestation when she complained of recurring uterine prolapse. Examination in lithotomy position revealed uterine prolapse and cervical elongation while pessary was ineffectively lying horizontally in posterior cul-de-sac. Ring pessary was repositioned. One week later the same problem occurred so a larger Gellhorn pessary was successfully inserted and the patient was discharged. Routine antenatal visits were performed regularly. She came to the hospital with labor pain at 39 weeks of her gestation. Transvaginal examination showed 3 cm dilatation in the cervix and 40% effaced; the fetal position was Left Occiput Transverse (LOT) and fetal membranes were intact. she was admitted and with the beginning of true labor, the pessary was removed but after a short-time utero-cervical prolapse emerged, so the pessary was reinserted.

During the first stage of labor until the rupture of membranes (at 6 cm cervical dilatation), the pessary was in the vagina. After removal of the pessary, although the cervix was out of introitus, the active phase of labor continued. When the cervix was fully dilated, the cervix was carefully slipped over the fetal head and vaginal delivery was completed without any complications.

The mother was postnatally fitted with a ring pessary for one month because of cervical protruding and then the pessary was removed. At six months follow-up, POP-Q staging showed stage 1 prolapse at the anterior and apical compartment and due to cervical elongation, she was a candidate for Manchester surgery.

Discussion

Pelvic organ prolapse is a rare condition in pregnancy which could occur in two types: the first type presents before pregnancy, and the second type appears during pregnancy for the first time [7].

Uterine prolapse could occur in any trimester. If the prolapse develops during pregnancy (new-onset), it could be identified in the second or third trimesters but if prolapse exists before pregnancy, it will be solved at the end of the second trimester without any complication [3]. It has been reported that estrogen and progesterone receptors are more in ladies with the elongated and hypertrophic cervix [8].

A wide range of complications has been reported for women with uterine prolapse during pregnancy such as abortion, urinary retention, premature rupture of membranes, cervical dystocia, elongated labor, and uterine sepsis [9, 10]. Most women with uterine prolapse during pregnancy need regular visits, pessary insertion, and resting. The administration of proper pessary is recommended. There is controversy regarding removing pessary during the first stage of labor [7]. Our patient presented with protrusion per vagina at the 16th week of gestation that was compatible with new-onset or type 2 POP during pregnancy. Limited POP-Q staging at the 16th week of gestation showed D point: -7, C point: + 5, and TVL:8 that is compatible with both uterine prolapse and cervical elongation.

One hypothesis suggests that when DeLancey level 1 of the posterior compartment is well supported, the increased distance between points C and D correlates with cervical elongation [9]. Besides, Ibeanu et al. concluded that estrogen and progesterone receptors are elevated in an elongated hypertrophied cervix [8].

During pregnancy, progesterone levels increase. The result that could be emerged from these data is that our patient had cervical elongation not uterine prolapse. POP-Q examination 6 months post-partum supports this result (after cessation of progesterone secretion, the length of the cervix became shorter than its pregnancy length).

To prevent edema, ulceration, and desiccation of protruded cervix during pregnancy “internalization of the exteriorized cervix” is essential [7]. So, first a ring pessary was fitted and when it was not effective anymore another suitable pessary was applied.

There is controversy about using pessary in the first stage of labor [7]. In this case, in the onset of labor, the Gellhorn pessary was removed but because of intrapartum probable complications such as cervical laceration, cervical dilatation arrest, and cervical edema, her first ring pessary was inserted. The ring pessary could prevent tissue protrusion without any arrest or prolonging the labor.

Ring pessary remained in place till rupture of membranes (at 6 cm cervical dilatation), after that cervix was controlled with manual force. There was no complication in the rest of the labor and post-partum period.

Conclusions

Pessary application in cases with uterine prolapse during pregnancy is helpful to prevent adverse complications.

Ethical Considerations

Compliance with ethical guidelines

Written informed consent was obtained from the patient for publication of this case report and any accompanying images.

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Conflict of interest

The authors declared no conflict of interest.

Authors' contributions

All authors contributed in preparing this article.

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