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Case Report

A rare case of nulliparous prolapse at term

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ABSTRACT

Uterovaginal prolapse complicating pregnancy is an extremely rare event. Obstetricians should be familiar with the condition as early recognition and close follow up is essential in order to avoid possible fetomaternal risks. Its incidence is higher in women of advanced age and parity. This case report presents a rare occurrence of prolapse in nulliparous woman. In the present case report, we describe a case of a 24 year-old nulliparous female who experienced sudden uterine prolapse at 38 weeks of gestation without labor. She was delivered by cesarean section in view of primi with breech. Following delivery, the prolapse promptly improved and did not recur.

Keywords: Uterine prolapse, Pelvic organ prolapse, Cesarean

INTRODUCTION

Uterine prolapse is a common condition in elderly females. However, uterine prolapse during pregnancy is rare, with an incidence of 1 per 10,000 to 15,000 deliveries.¹ It can cause preterm labour, spontaneous abortion, fetal demise, maternal urinary complications, maternal sepsis, and death.¹ Only a few cases of prolapse during pregnancy have been reported and there is no consensus on the efficient management. The overall fetal mortality rate in women with pelvic organ prolapse (POP) in pregnancy was 22% in 1941.²

However, eight perinatal deaths have been reported since 1990, all from developing countries.² This report is of very rare case of uterine prolapse in a young healthy primigravida female during late gestation.

CASE REPORT

A 24 year old nulliparous female married for 2 years came to our emergency with complaint of something coming out of vagina. She experienced sudden uterine stage 3 prolapse at 38 weeks of gestation without labour pains.

Upon arrival, she was in labour pain, and her vital signs were blood pressure 120/80 mmHg, pulse rate 88 beats per minute, respiratory rate 22 breaths per minute, and body temperature 36.5°C. Pertinent findings were- abdomen: term sized gravid uterus, fundus occupied by hard globular mass that was cephalic, longitudinal lie, and the breech presentation.

Fetal heart sound presents on auscultation with non-stress test reactive. She had no contractions. Ultrasound revealed a singleton intrauterine pregnancy of thirty eight weeks, the fundo-anterior placenta and no gross congenital anomaly.

Pelvic examination showed a stage 3 uterovaginal prolapse, the cervix was congested, the cervical mucosa was partially lacerated, and bleeding was noted; the protruding cervix could not be repositioned into her vagina.

Although the cervical congestion worsened over time, she still did not experience any labour pains. She was delivered by cesarean section as she was primi with breech presentation.



Figure 1: Patient with stage 3 prolapse.

Aa:-2, Ba:-2, C:3, Gh:4, Pb:3, Tvl:10, Ap:-2, Bp:-2, D:1

POP Q measurements

The locations of the defined 6 points are Anterior vaginal wall: Point Aa: A point located in the midline of the anterior vaginal wall 3 cm proximal to the external urethral meatus. The potential range of position of point Aa relative to the hymen is -3, indicating no anterior vaginal Prolapse, to +3 cm which is full prolapse. Point Ba: A point that represents the most distal (i.e., most dependent) position of any part of the upper anterior vaginal wall (between the vaginal cuff or anterior vaginal fornix and Point Aa). Point Ba coincides with point Aa (-3 cm) in a woman who has no anterior POP. In a woman with severe POP, Ba coincides with Point C.

Upper vagina: Point C: A point on either the most distal (i.e., most dependent) edge of the cervix or the leading edge of the vaginal cuff (hysterectomy scar). Point D: The posterior fornix in a woman who still has a cervix.

Posterior vaginal wall: Point Ap: A point located in the midline of the posterior vaginal wall 3 cm proximal to the hymen. The potential range of position of Point Ap relative to the hymen is -3 to +3 cm. Point Bp: A point that represents the most distal position of any part of the upper posterior vaginal wall (between the vaginal cuff or posterior vaginal fornix and point Ap).

Three further descriptive landmarks and measurements: The genital hiatus (GH) is measured from the middle of the external urethral meatus to the posterior margin of the hymen. The total vaginal length (TVL) is the length of the vagina (cm) from posterior fornix to hymen when point C or D is reduced to its full normal position. The perineal

body (PB) is measured from the posterior margin of the hymen to the mid-anal opening.

Genital hiatus (Gh); Perineal body (Pb) and total vaginal length (TVL) relate to a 3×3 grid used for clinical documentation

The points are measured during maximal valsalva or cough in relation to the hymen. When the point descends to the hymen it is measured as 0 cm, if it remains above the hymen it is measured in cm and described as negative integers and if it descends beyond the hymen it is measured in cm and described as positive integers.¹¹ This grid was used in the entire follow-up process of the patient.

The postoperative period was uneventful and vaginal examination was performed especially for potential risk of prolapse recurrence. However, prolapse was not observed and two days later she was discharged with her healthy baby. Following delivery, the prolapse promptly improved and did not recur at her 1week and 6week postpartum examination.



Figure 2: Post op day 2.

DISCUSSION

POP is the descent of pelvic viscera through the vaginal canal due to the weaker supporting structures of the pelvic floor.³ Almost half of women beyond the age of 50 years have varied degree of prolapse.³ The contributory factors besides increasing age are, childbirth trauma to pelvic floor muscles, factors causing raised intra-abdominal pressure and Caucasian race. The reported incidence of prolapse in nulliparous women is very low. POP can involve three different compartments and are classified accordingly. Patient who presents with pressure symptoms, backache or something coming out of vagina may have lower urinary tract or bowel symptoms depending on the additional compartments involved. Optimization of general health and reduction of factors

triggering prolapse should precede surgical management. Physiotherapy, pelvic floor exercises and intravaginal pessaries probably have a role in younger females with lesser degree of prolapse where fertility preservation gets a priority. Surgery offers definitive treatment. There are various surgical procedures for prolapse depending upon the type and degree of prolapse also considering the age of patient and fertility requirements. These include anteriorcolporrhaphy for cystourethrocele, posterior colporrhaphy for rectocele, Manchester repair and sacrohysteropexy. Pelvic fractures are also known to predispose to prolapse with a higher chance of recurrence.

Antepartum complications associated with uterine prolapse during pregnancy are preterm labour and fetal death including abortion. Urinary tract infection and acute urinary retention can occur. Indeed, maternal death has been reported as a complication of uterine prolapse during pregnancy.⁴ The most important intrapartum complication is cervical dystocia, which results in inability to attain adequate cervical dilatation. In addition, obstructive labor, as well as cervical laceration and a predisposition to rupture of the lower uterine segment, have been reported.⁵ Therefore, some authors recommend elective cesarean section as a preferable mode of delivery to avoid intrapartum complications. The treatment of choice is conservative management during pregnancy because uterine prolapse usually resolves spontaneously after delivery. Conservative management consists of genital hygiene and bed rest in a slight Trendelenburg position, which is managed with close follow up on an outpatient basis.¹ A suspensory pessary can be kept to protect the prolapsed cervix. Recently, cases of laparoscopic uterine suspension during pregnancy reported, demonstrating an alternative minimal surgical approach.

CONCLUSION

In conclusion, obstetricians should be aware of this rare condition and its complications. Although most authors

recommend elective cesarean section, the method of delivery should be individualized according to the patient's preferences, uterine cervical status, and labor progression. Uterovaginal prolapse occurring in primigravida recognition is very rare, with congenital weakness being a possible underlying pathology. For a patient with POP without labor and breech presentation, cesarean section is a good option when there is severe edema resulting in obstructed labor, as in our case and the prolapse resolved postpartum.

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