

Acute uterine prolapse in third trimester of pregnancy: a case report

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Case Report

A 28 years-old gravid –III Para-II (both vaginal delivery) whose gestational age from unreliable date was 34+6 weeks presented with a history of mass protrusion per vagina of six hours duration. She had history of fall-down accident a week back. She had no pushing down pain, nor passage of liquor at presentation, nor vaginal bleeding. She had no history of decreased fetal movement. She had no history of symptoms of pelvic

organ prolapse before the pregnancy, nor during the pregnancy. Her past medical, family, and psychosocial history was unremarkable.

Up on physical examination, her vital signs were all normal. The pertinent finding was on genitourinary system which revealed a complete prolapse of the cervix through the vagina- it was out of the vaginal canal - and part of the lower uterine segment was in the vaginal canal. Pelvic ultrasound was done which confirmed prolapse of part of the lower uterine segment being in to the vaginal canal. The internal cervical OS closed. Estimated fetal weight was 2500 grams with anterior placenta and reassuring biophysical profile. Her CBC profile was normal.



Figure 1. Uterine prolapse before deliver

With the assessment of acute uterine prolapse, she was put in a moderately Trendelenburg position. The prolapse was reduced manually- the cervix was repositioned in to the vagina and packed with sterile gauze

soaked in saline. She was admitted to high risk ward for conservative management with bed rest with the same diagnosis plus 3rd Trimester pregnancy plus unknown date. Dexamethasone was administered for fetal lung maturity.

After three days on conservative management, there was significant improvement. The cervical edema subsided. Meanwhile, she had spontaneous onset of labor. After 10 hours of labor at our labor and delivery ward, she had a vaginal delivery with an outcome was 3200 grams alive male neonate with Apgar score of 7/10 and 8/10. There was cervical laceration that was repaired successfully with vicryl 2-0. She was discharged 48 hours later with improvement

Discussion

Large, population-based epidemiological and cross-sectional observational studies have documented the relationship between parity, childbirth, and pelvic organ prolapse though it is not clear to what extent pregnancy itself versus mode of delivery contributes to the development of PFDs in later life (1, 2). Physiologic change of pregnancy causing cervical elongation, hypertrophy and relaxation of the support ligament and previous medical record of prolapse are among the most common risk factors (3).

Incidence of uterine prolapse during pregnancy, this being due to poor cardinal and uterosacral ligament apical support, is a rare condition manifesting in an estimated 10 000 to 15 000 pregnancies. Prolapse that existed before onset of pregnancy will usually resolve spontaneously by the end of the second trimester without further complications, while prolapse that develops during pregnancy is usually first noted in the third trimester (4). Our case had an acute uterine prolapse in the third trimester for the first time, following a fall-down accident a week antecedent to her presentation.

Ultrasound and magnetic resonance may be applied for the evaluation and quantification of POP. A non-invasive ultrasound technique, translabial or transperineal, appears to be clinically most useful in the early assessment of POP (5). In our case, the diagnosis was made clinically through inspection and physical examination, which found an edematous cervix, completely out of the vagina. Pelvic Ultrasound also showed that part of the lower uterine segment was in the vaginal canal.

The management plan for pelvic organ prolapse during pregnancy must be individualized. Bed rest in a moderately Trendelenburg position should be advised in order to reduce edema and displacement of the uterus (6,7). Continuous use of a pessary is recommended, which should not be removed until the onset of labor (7).

Most authors recommend conservative management during pregnancy followed by elective cesarean section (8, 9). Alternatively, in cases where conservative solutions have failed, minimally invasive surgery (laparoscopic uterine suspension) has been described in early pregnancy (10).

Vaginal delivery is safe mode of delivery, especially in the absence of an edematous and elongated cervix (4, 11, 12). As shown in the table 1 below, 26 out of the 37 cases of uterine prolapse in pregnancy reported between 1940-2011 had vaginal deliveries with 4 reports of cervical laceration. Our case had spontaneous vaginal delivery and there was cervical laceration which was successfully repaired.

| Study | Year | Cases | Delivery | Complications reported |
|------------------------------|------|-------|------------------|------------------------|
| Kettel WC et al. (64) | 1940 | 3 | Spont. Del.* | No complication |
| Klawans AH, Kanter AE (63) | 1949 | 4 | Spont. Del.* | No complication |
| Vigilante M et al. (62) | 1956 | 1 | Spont. Del.* | No complication |
| Gaetane J et al. (48) | 1956 | 2 | Spont. Del.* | No complication |
| Piver et al. (65) | 1968 | 8 | Spont. Del.* | 4 cervical laceration |
| 1 retained placenta | | | | |
| Hill PS et al. (49) | 1984 | 1 | Spont. Del.* | No complication |
| Brown HL et al. (1) | 1997 | 3 | Spont. Del.* | No complication |
| Matsumoto T et al. (56) | 1999 | 1 | Spont. Del.* | No complication |
| Horowitz ER et al. (67) | 2002 | 2 | Cesarean Section | No complication |
| Guariglia L et al. (54) | 2005 | 1 | Spont. Del.* | No complication |
| Meydanli MM et al. (51) | 2006 | 1 | Cesarean Section | Cesarean hysterectomy |
| Partsinevelos GA et al. (61) | 2006 | 1 | Cesarean Section | No complication |
| Tukur A. et al. (60) | 2007 | 1 | Cesarean Section | No complication |
| Daskalakis G et al. (52) | 2007 | 1 | Cesarean Section | No complication |
| Eddid A et al. (55) | 2010 | 1 | Spont. Del.* | No complication |
| De Vita D et al. (66) | 2011 | 2 | Cesarean Section | No complication |

Spont. Del.* = Spontaneous delivery.

Table 1. Uterine prolapse in pregnancy – mode of delivery (11-15)

If vaginal delivery is decided, it is also suggested that a pessary during the first stage of labor could avert cervical dystocia: this is because the cervical parameter markedly decreases potentially serious vascular complications and the need for Dührssen's incisions of the cervix to facilitate delivery (5, 16). Labor induction with misoprostol and oxytocin should be avoided (16, 17)

In women with irreversible severe uterine prolapse and completed family, cesarian hysterectomy may be considered followed by suspension of the vaginal cuff to the periosteum overlying the sacral promontorium(18).

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