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A RARE CASE OF POSTPARTUM RUPTURE OF UNSCARRED UTERUS IN GRANDMULTIPARA

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ABSTRACT

INTRODUCTION: Rupture of uterus is a life threatening obstetrical complication characterized by a breach in the uterine wall and the overlying serosa. **CASE:** A 35-year-old pregnant woman, gravid 4, para 2, live 2, abortion 1, came to our department with chief complaints of pain in abdomen. Patient was induced with catheter cerviprime gel in view of prolong pregnancy with non-reactive NST. She delivered vaginally after 9 hrs of induction without any augmentation of labor, giving birth to a female neonate of 3,300 g with normal APGAR scores at first and fifth minute. After delivery uterus was well contracted and obstetrical examination after delivery was normal. However, the day following her labor, patient complained of severe pain in abdomen associated with distension and tenderness. Her USG abdomen-pelvis revealed a hematoma in pelvic cavity of Size : 8x 4 x 11 cm in vesicouterine pouch. Laparotomy was done and obstetric hysterectomy was performed. Postoperative recovery was uneventful. **CONCLUSION:** Induction of labor in grandmultipara with malpositions with vaginal prostaglandin E2 at advanced maternal age should be done with caution with intensive intrapartum and postpartum monitoring as rarerly uterine rupture may occur with patient being vitally stable.

INTRODUCTION

Rupture of uterus is an obstetrical complication in which there is a breach in the uterine wall and the overlying serosa. It occurs particularly during labor or third trimester of pregnancy, and it is a hazardous condition to both maternal and fetal health(1). Uterine rupture in an intact uterus can occur with malpresentation, second stage dystocia, labor induction, preterm delivery, delivery after 42nd gestational week, multiparity, advanced maternal age, abnormal placentation, fetal macrosomia(2). Massive hemorrhage, need for blood and blood products transfusion, Obstetric hysterectomy, as well as neonatal peripartum deaths are most important consequences of uterine rupture(3).

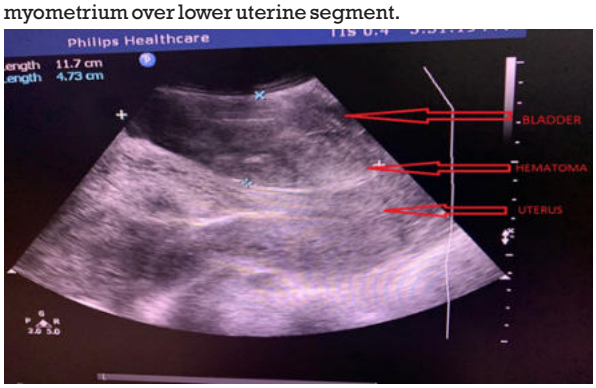
We report a rare case of postpartum rupture of an unscarred uterus in a 35-year-old woman, a day after her third successful vaginal delivery.

CASE

A 35-year-old, G4P2L2A1 presented with prolonged pregnancy 5 days gestational week for pain in abdomen. She had two normal deliveries with one check curettage for incomplete abortion. Non stress test was non-reactive. Patient was induced with intra cervical catheter with PGE2gel 0.5 mg, single dose. She delivered spontaneously without any augmentation 9 hrs after induction of labor. The neonate of 3,300 g with normal APGAR score.

After delivery uterus was well contracted and obstetrical examination after delivery was normal. Patient was apparently stable with no chief complains. However, after 12 hrs following her labor, patient complained of severe pain in abdomen associated with distenstion and tenderness. Her USG abdo-pelvis revealed a hematoma in pelvic cavity of Size : 8x 4 x 11 cm in vesicouteral pouch.

Emergency exploratory laparotomy was done. Intraoperative there was **Hematoma** of size approximately ~10x5 cm in lower uterine segment just above urinary bladder. There was also **E/O** decussation of anterior myometrium over the uterus. Uterovesicle fold was dissected and approximately ~ 250 gm hematoma drained B/W sheared layers of myometrium over lower uterine segment.



USG abdo pelvis of patient showing hematoma in pelvic cavity of Size : 8x 4 x 11 cm in vesicouteral pouch

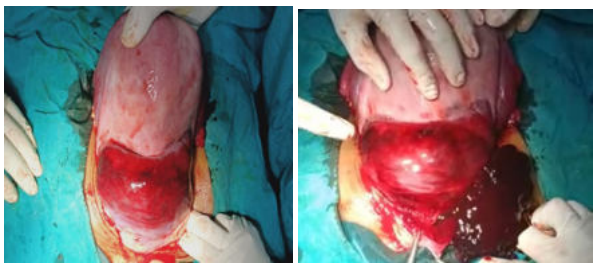


Image showing hematoma in vesicouterine pouch of size ~10x5 cm image showing drainage of hematoma of approximately 250 gm

Sub total Obstetric Hyserectomy in view of Bilateral uterine artery laceration with irreparable tear in uterus with b/l broad ligament hematoma was done. Postoperative follow-up period was not characterized by any complications and patient went home well on day7.

DISCUSSION

Hofmeyr GJ et al. conducted a study on "The Prevalence of Uterine Rupture in women with unscarred uterus" in 2005 in USA. In a systematic review of all available data since 1990 in which community and facility based reports from urban and rural studies were used, the study gave a worldwide prevalence of uterine rupture for women without previous caesarean section, was extremely low (0.006%) (4).

Accroding to case report on "Safety of Induction of Labor with Vaginal Prostaglandins (E2) in Grandmultipara" by Veena Paliwal et al in 2005, prostaglandin agents were used in dose of 1.5 mg-3 mg PGE2 tab or 1 - 2 mg gel and was placed in the posterior vaginal fornix. In our case also induction of labor was done with 0.5 mg of PGE2 gel single instillation. In Paliwal et al study it was seen that prostaglandins and oxytocin were used for induction and augmentation of labor respectively in grandmultipara, are particularly associated with intrapartum uterine rupture(3). In our case single dose of PGE2 gel was used. However, the uterine rupture occurred though Oxytocin was not used for augmentation of labour.

In a case study by Ahmed Samy El-agwany et al conducted at Alexandria medical centre in the USA in August 2017, conservative management of septic postpartum uterine dehiscence after cesarean section was done. Three cases that were diagnosed by ultrasound as a dehiscent scar postpartum after cesarean section were managed conservatively with broad-spectrum antibiotics and with regular follow-up(6). In this study as cases were clinically stable without local or systemic signs of uterine ruptutre, they were managed conservatively. In our case she had both local and systemic signs of uterine rupture thereby necessitating a Laparotomy. The decision of obstetric hysterectomy was further justified by the fact that there was extensive trauma, laceration of uterine arteries, significant hematoma of size ~10x5 cm and decussation of anterior myometrium with shearing of layers of myometrium over lower uterine segment.

In 2015, at the Department of Obstetrics and Gynecology, in Aristotle University of Thessaloniki, Greece Dr. George Mavromatidis, encountered a similar case in which a grandmultipara delivered spontaneously and uneventfully. After 1day of delivery she complained of pain in abdomen for which USG Abdomen pelvis followed by MRI was done. It revealed disruption of lower part of myometrium along with hemorrhagic stuff. She was taken for exploratory laparotomy. The decision of subtotal hysterectomy was made as conservative surgical management was not possible due to the extension of rupture in left parametrium (2). According to this case report, potential parameter that might partially offer a plausible explanation to the uterine rupture is the induction of labor(2). Advanced maternal age, multiparity and fetal macrosomia have been also mentioned to raise the possibility of uterine rupture(2). All above parameters were also seen in our case and was similarly managed by doing a Subtotal obstetric hysterectomy.

A Case Report of S D Halassy in 2019 of a grand multipara case ,who had no history of previous cesarean section, required emergency cesarean delivery due to fetal distress. During LSCS complete uterine rupture was diagnosed. Our case also had an unscarred uterus, that might have ruptured during labour, and the rupture was detected in post partum period(5).

CONCLUSION

Uterine rupture is a complication in Obstetrics that is difficult to be predicted due to its unclear and plural etiopathogenesis. Despite its rare occurrence, an obstetrician should have this complication in mind especially in cases with certain risk factors and be aware of the difficulty in its diagnosis due to potential nonspecific signs and symptoms.

Induction of labor in grandmultipara at advanced maternal age with vaginal prostaglandin E2 in malpositions should be done with caution with intensive intrapartum and postpartum monitoring. Rarely, patient may remain vitally stable in spite of rupture of uterus.

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