CASE REPORT

Spontaneous mid trimester rupture in an un-scarred complete septate uterus with gut loop prolapsed in left uterine cavity- A maternal near miss mortality

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ABSTRACT
Spontaneous mid trimester rupture in an unscarred complete septate uterus with gut loop prolapsed in left uterine cavity- A maternal near miss mortality. **Background-** Rupture uterus is the most dreaded obstetric complication- a direct cause of maternal near miss usually seen in third trimester or during labor with pre-existing risk factors. Spontaneous rupture during second trimester in an unscarred uterus with the gut prolapsed in left cavity of complete septate unscarred uterus with no history of instrumentation is rarest of rare. **Case:** A 26-year, G6 P4 L3 A1 with 6 months amenorrhea presented with acute-onset abdominal pain in shock. Emergency exploratory laparotomy was performed for a diagnosis of ruptured uterus. A dead fetus was lying in the peritoneal cavity. There was an eight centimeters fundal rupture in uterus with massive haemoperitoneum. A 2.5cms thick long septum running from fundus till internal os with an 8cms loop of transverse colon densely adherent to myometrium of the left uterine cavity till internal OS was seen. After excision of septum, transverse colon prolapsed in left uterine cavity was separated with sharp dissection. Conservative approach with repair of uterus and bilateral tubal ligation was performed along with resuscitative measures. The patient recovered uneventfully. **Conclusion:** Spontaneous rupture of un-scarred septate uterus in a grand-multipara along with prolapse of the gut loop in the uterine cavity may occur even in the absence of any instrumentation/surgery. Early diagnosis of uterine anomaly, prompt resuscitation with blood products and emergency exploratory laparotomy are essential in successful management.

Keywords: Spontaneous, Rupture, Septate uterus, Gut loop

INTRODUCTION

Rupture uterus remains one of the deadliest obstetric complications.A direct cause of maternal near miss, perinatal morbidity and mortality. Congenital uterine anomalies, grand multipara, previous scarred uterus, injudicious labor induction/augmentation regimens, obstructed labor and repeated dilatation and curettage are significant risk factors for rupture uterus [Gardeil, Daly, & Turner, 1994; Golan, Sandbank, & Rubin, 1980; Hockstein, 2000; Seracchioli, Manuzzi, Vianelli, Gualerzi, & Savelli, 2006]. Majority of rupture uterus occur during labor with pre-existing risk factors [Bhatia et al, 2013]. The incidence of rupture uterus is 0.012% in an unscarred uterus. However, even with existing high-risk factors, over all incidence is not very high. [Gardeil, Daly, & Turner, 1994]. Signs and symptoms of rupture uterus are vague and non-specific leading to difficult diagnosis and thus a delay in treatment. [Pakniat, Soofizadeh, & Khezri, 2016] Common signs and symptoms of rupture uterus include sudden loss of fetal movement, fetal distress, acute onset abdominal pain, syncope, tachycardia, tachypnea, disappearance of contractions, bleeding per vaginum and hypovolemic shock. On examination, there may be abdominal distension, tenderness, guarding, rigidity along with evidence of haemoperitoneum. The contour of the uterus may be lost.

We report the rarest of the rare case of mid- trimester spontaneous rupture of unscarred septate uterus in a grand multi-para with large gut loop prolapsed in the entire length of the left uterine cavity. Our patient came to the emergency with pain in abdomen for one day. It was associated with loss of fetal movement along with four episodes of vomiting and bleeding per vaginum. The patient had a spontaneous mid trimester

rupture with an eight centimeters loop of large gut prolapsed in the left cavity of an unscarred complete septate uterus, from fundus till internal os. There was no history of prior instrumentation, minor or major uterine surgery. This may perhaps be the first reported case in literature.

CASE

A 26-year-old Indian female, unbooked G6P4L3A1 presented with six months amenorrhea in shock with bleeding per vaginum, air hunger and syncope. There was history of pain in lower abdomen extending to back and medial side of thigh for past one day. It was associated with four to five episodes of vomiting and loss of fetal movements. There was history of four prior normal vaginal deliveries at home conducted by dai with last child birth two years back which was a stillbirth, cause not known. There was history of medical abortion at seven weeks amenorrhea one year back, which as per the relatives was not followed by instrumentation or dilatation and curettage. On admission, patient's general condition was very sick, pale with sunken eyes, cold clammy extremities and was gasping for air. Her blood pressure was 80/50mmhg and pulse rate of 136 per minute, feeble. Saturation of 90% on room air with respiratory rate of 32 per minute. On per abdomen examination, the abdomen was tense, tender, with guarding, rigidity and generalized distention. The contour of the uterus could not be appreciated. Fetal heart was not audible through stethoscope or doppler. On per vaginum examination, cervix was mid position, long tubular, uneffaced with external os closed and minimal bleeding was present. Immediate Resuscitative measures in HDU along with ICU team initiated with oxygen at 8litres/hour. Two wide bore cannulas were secured and crystalloids at rate of 1000ml/hr were rushed along with 1unit PRBC. Patient was catheterized, and 50ml of high colored urine seen. An immediate bed side ultrasound was suggestive of rupture uterus with intrauterine death. Hemoglobin was reported to be 5gm/dl, RBS of 78gm/dl, Bilirubin was 0.8mg/dl, SGOT-33U/L and SGPT -51U/L, urea 18mg/dl and creatinine was 0.7mg/dl. Her electrolytes were within normal limits and viral markers were non-reactive. Patient was taken for emergency exploratory laparotomy after high risk consent with diagnosis of rupture uterus in shock. Intra-operatively, there was significant haemperitoneum (2litres). A dead male fetus weighing 900 g was delivered and no signs of life were seen. Placenta with large reteroplacental clot weighing 600grams was removed. There was a transverse rupture of 8 cm seen in the fundus of uterus with a loop of transverse colon prolapsed and infiltrating endometrium into the entire length of left cavity till internal os. A 2.5 cms thick septum in the center of uterine cavity extending till internal os was seen. The left cavity was not communicating with the cervix, however, right cavity was communicating with endocervical canal and vagina; a diagnosis of complete septate uterus (class U2b) was made [Grimbizis, Gordts, & Spiezio Sardo, 2013]. Transverse colon was separated from endometrium of left side of uterine cavity with sharp dissection after excision of the midline septum. There was a 4cms tear in the serosa of the transverse colon which was sutured using Vicryl no: 4.0. Conservative surgery with repair of the uterus and bilateral tubal ligation using modified Pomeroy's technique was performed. A per speculum examination done after surgery confirmed a single mid positioned cervix and vagina. Patient was put on intravenous Pipperacillin with Tazobactum and Metronidazole along with other supportive treatment. She was discharged on postoperative day eight after stitch removal with progressive recovery.

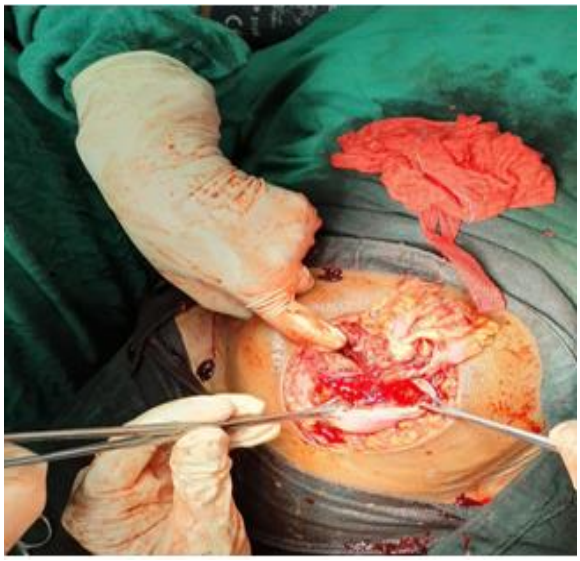

Figure 1: Intra operative picture showing fundus of uterus with a loop of transverse colon prolapsed and infiltrating endometrium into the entire length of left cavity till internal os

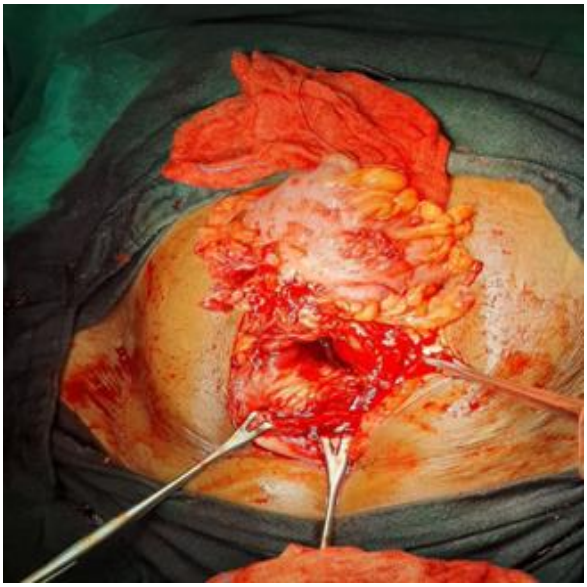

Figure 2: Intra operative picture showing Thick septum in the center of uterine cavity

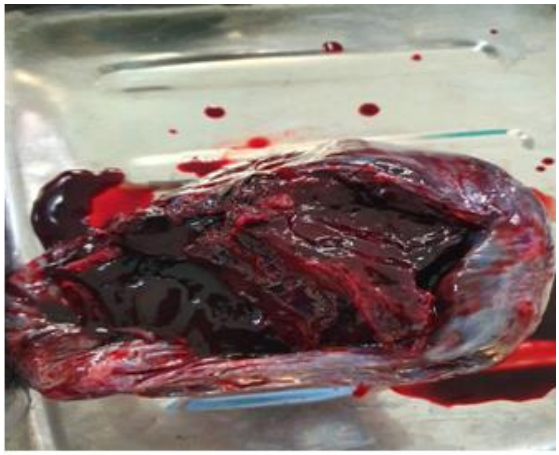

Figure 3: Transverse rupture of 8 cm in the fundus of uterus

DISCUSSION

Mid-trimester spontaneous rupture of unscarred complete septate uterus in a grand-multipara with prolapsed loop of transverse colon, in a patient with prior normal deliveries and no history of instrumentation is rare but possible. Grand multiparity and uterine anomaly (complete septate uterus in this case) could be possible risk factors. Presence of the loop of transverse colon in the left cavity of septate uterus was a rare finding. There could have been a small perforation at fundus during previous pregnancies or abortion, post which the gut loop prolapsed in the uterine cavity forming adhesions at the subsequent rupture site; which masked the signs of rupture. This is to the best of our knowledge the first reported case of its kind. Uterine malformations should be diagnosed in early first trimester dating scan. Prompt diagnosis, referral to tertiary care without any delay is the key for successful maternal and neonatal outcome.

Kuwata et al reported a case wherein there was an intestinal adhesion at a previous myomectomy site which masked typical symptoms of uterine rupture and thus delayed its diagnosis and treatment [Kuwata et al, 2011]. They concluded that myomectomy may be a risk factor for uterine rupture. In his case it not only caused the rupture but led to intestinal adhesions which masked typical signs and symptoms of rupture uterus. In a prior case, a congenital uterine anomaly led to spontaneous rupture of an unscarred uterus away from term [Lovelace, 2016]. It was concluded that congenital uterine anomalies can be a probable risk factor for spontaneous rupture even in first and second trimester. Bhatia et al reported a case of spontaneous rupture of unscarred gravid term uterus during labor in a grandmultipara and concluded that grandmultiparity is a very important risk factor for uterine rupture [Bhatia et al, 2013].

CONCLUSION

Rupture of an unscarred uterus should always be kept in the list of differential diagnosis in mid-trimester grand multipara with unscarred uterus reporting in shock with acute pain abdomen and bleeding per vaginum. Uterine malformation and grand multiparity are important risk factors for rupture uterus. In our case, the prolapsed gut loop in an undiagnosed small perforation at the fundus of uterus may have served as a weak area leading to subsequent rupture. It further formed adhesions at the rupture site and thus masked the obvious signs/symptoms of rupture. High index of suspicion, prompt referral to tertiary care with no delay in seeking care, reaching care or receiving care from team of specialized obstetrician will save many mothers.

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