

## An Unusual Case of Ruptured Uterus Associated With Placenta Abruption: Case Report

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Submitted: 10 Aug 2017; Accepted: 22 Aug 2017; Published: 09 Sep 2017

**Abstract**

Association of abruption of placenta and ruptured uterus is extremely rare, there were only a few cases described in the past. A 24 year-old woman, G2P1 L0 with history of previous Cesarean Section for obstructed labour and now at 7 months of pregnancy, presented with features of acute abdomen with severe anemia. Her pulse rate was 136 per minute, temperature 36.1°C., respirations 28 per minute, blood pressure 96/50 mm. of Hg. Height of uterus 28 weeks, had tenderness and rigidity over the upper abdomen. She was suspected to have Haemoperitoneum due to ruptured uterus, and laparotomy was performed under IV Ketamine as provision of general anaesthesia was unavailable. Intra-operative findings were Haemoperitoneum, recovery of huge amount of clots from peritoneal cavity, Posterior fundal rupture with intact amniotic sac. A fresh stillborn fetus was delivered from the intact amniotic cavity with clear liquor through the rupture site followed by repair of the rent. She received blood transfusion and recovered without any complication. Laparotomy allowed us to discover this unusual presentation in this patient.

**Keywords:** Abruptio placentae, Couvelaire uterus. Ruptured uterus, Haemoperitoneum, Ketamine.

**Introduction**

Concurrent presentation of abruption of placenta and ruptured uterus is extremely rare, a few cases are found in the literature [1, 2]. Both conditions are seen as obstetrical emergencies and their diagnosis can only be made through skillful examination [3]. Presentation of both conditions in the same patient can result in delay in providing appropriate treatment if not recognized in time and may prove lethal.

**Case report**

Smt. RS, 25 year-old woman, G2P1L0 with history of previous Cesarean Section for obstructed labour, about 6 years back was admitted to DHH Bolangir, Odisha; on 15/ 05/2015. Her present pregnancy had been uneventful except for mild anemia (Hb %- 10 gm. %) at 22 weeks and a slight rise of blood pressure (134/92 mm of Hg.) which had been noted during ANC at Village Health & Nutrition Day in her village couple of weeks earlier. At 28 weeks, she was admitted to one FRU as an emergency with excruciating abdominal pain, irritability, shock, and bleeding per vagina. History revealed that at about 6 A.M. on 15/ 05/2015, she experienced pain abdomen followed by mild bleeding per vagina. Her husband arranged vehicle for her transport to the nearby FRU without delay.

On admission to FRU at 7.30 AM, she had dyspnea and pain abdomen. Her pulse rate was 134 per minute, BP- 98/48 mm of Hg, Respiration 22/minute, temperature -37.4°C, Hb- 6 gm.%, height of uterus 28 weeks, had tenderness and rigidity over the upper abdomen. USG examination was ordered. 30 minutes later while being taken for USG, her condition worsened, she became unconscious and started

sweating; her pulse rate then was 148/minute, BP 100/50 mm of Hg. She was pale, abdomen was tender. She was put on appropriate resuscitation protocol and referred to DHH with amulance supports.

On admission to District Headquarters hospital at 11.10 AM. The patient was semi-comatose, extremely pale, and in a shock stage. Pulse rate 136 per minute, temperature 36.1°C., respirations 28 per minute, blood pressure 96/50 mm. of Hg.. Abdomen was rigid and tender. The outline of the 28 weeks sized uterus could be made out; no bulging or tenderness was discovered over the lower segment. The lie and the presentation could not be identified, nor was the foetal heart heard. Some bright-red blood was seen at the vulva. A diagnosis of Rupture Uterus was made. The hemoglobin was only 5.6 gm%, and on catheterization Only 50 ml of urine could be found from the bladder. Blood sample sent for Grouping Rh typing and X-matching while fluid replacement was initiated.

At 1 p.m. the patient became more restless, was shifted to Operation Theatre. After the usual preparation, cleansing and draping, laparotomy was carried out under IV Ketamine as because administration of general anaesthesia was not possible in the institution. (Loading dose of 70 mg. followed by 30mg. in additional intermittent doses).

**Laparotomy Findings**

1. Haemoperitoneum with large amount of clots in the peritoneal cavity.
2. Uterus was 28 weeks size.
3. 5" rent over the posterior fundal region of the uterus with placental attached to its margin.
4. Previous scar intact at the lower uterine segment.
5. No other bleeding site accounting for Haemoperitoneum.
6. Placenta was removed which was exposed to abdominal

cavity through the rent.

7. A stillborn male child was delivered from an intact amniotic sac with clear liquor.
8. The rent was closed. Peritoneal toileting was done and Abdomen was closed. She received one unit of blood and five litres of normal Saline & Ringer's Lactate in the operating theatre. She received 3units of blood on first post-operative day. Post-operative period was uneventful; and was discharged on day 8 after removal of stitches.

## Discussion

This patient presented with features very suggestive of placental abruption, but in the course of her labour she spontaneously ruptured her uterus. Initially diagnosis for placental abruption was made with clinical feature of vaginal bleeding, uterine tenderness and history of mild hypertension a month prior to this event. Several studies have demonstrated a link between hypertension and placental abruption [3, 4].

Deteriorating condition of the patient with little vaginal bleeding associated with generalized abdominal pain with rebound tenderness was sufficient to lead us to diagnosis of Haemoperitoneum with possible associated uterine rupture [3]. Management of ruptured uterus and placental abruption is different; hence distinguishing between the two conditions is important. Management of abruptio placentae with fetal demise includes immediate delivery, preferably by vaginal birth [3, 4]. Abdominal delivery is indicated when vaginal delivery is unachievable or when bleeding is so severe that the patient's condition is deteriorating very fast [3, 4]. However in case of uterine rupture, immediate laparotomy is the only option [3].

Many cases of Fundal rupture of uterus are described with pathological invasion of placenta in to the uterine wall, for example placenta increta or percreta [5]. Uterine rupture in this case cannot be explained by high parity, as precipitating factors like large Baby, Mal-presentations, obstruction or use of oxytocin, were not apparent in this case. It remains unclear, Whether Couvelaire uterus or abruptio placentae have any impact on integrity of the uterine myometrium [1, 2].

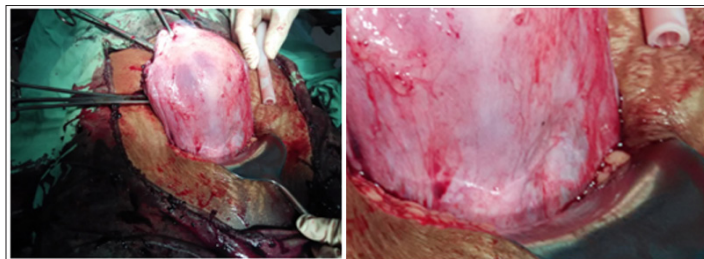


Figure 1, 2: Showing intact cesarean scar.

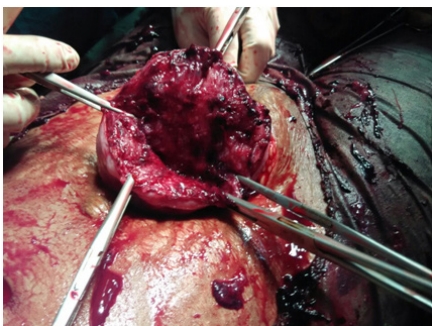


Figure 3: Showing posterior fundal rupture.

## Conclusion

The lesson learnt from this case; it is important to respond to every new symptom during management of placental abruption [6]. and this is only possible with careful monitoring even in limited resource centers. Lives can be saved even in absence of an Anaesthetist with use of IV Ketamine in appropriate doses.

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