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CASE REPORT

SPONTANEOUS RUPTURE OF RIGHT UTERINE ARTERY IN A PREGNANT WOMEN: A RARE ENTITY

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ABSTRACT: CASE: A 30 years old female $G_4P_2L_2A_1$ at 34 wks of pregnancy with complains of acute pain abdomen more on right side and constipation, fever on & off & vomiting. After through investigations exploratory laparotomy was done which reveled spontaneous rupture right sided uterine artery with 1000ml of haemoperitoneum. Hysterectomy was performed after delivering the baby due to uncontrolled bleeding & difficult homeostasis. Because of maternal vital signs become unstable & homeostasis was difficult hysterectomy was performed & blood transfusion administered. Although very rare, hemoperitoneum should be included in the differential diagnosis when a pregnant women experiences acute onset, severe abdominal pain, even without an episode of abdominal trauma. **BACKGROUND:** Spontaneous rupture of uterine artery during pregnancy is rare, presenting symptom include acute onset abdominal pain & maternal hypovolemic collapse due to hemoperitoneum. A typical case of subculture uterine artery rupture @ 34wks. of gestation occurred in a women. **CONCLUSION:** Spontaneous rupture of the uterine vessels during pregnancy is a rare complication & may lead to maternal & fetal morbidity & mortality. Diagnosis and treatment are based on the clinical symptoms of actuate abdominal pain & laboratory test of hypovolemic shock signs.

KEYWORDS: Spontaneous, Uterine artery.

INTRODUCTION: Hemoperitoneum in pregnancy is a rarest condition but it is a life threatening complication that results from rupture of uterine vessels.

1. There will be sudden rise in venous pressure turning out to vessel rupture and decasualized endometriosis invading vessel wall may be counted as responsible risk factors. Brosens et al. Stated in their article that bleeding vessels were venous, arterial or unknown (80%, 16%, 4% resp,[1,2]).
2. About 40% of the cases are found in primigravida and over 70% are related to labor. Due to its rarity and unspecific signs and symptoms of clinical presentation delay in diagnosis leads to morbidity & mortality.[3,4]
3. Here we present a case of G4P2L2A1 at 34 wks. of pregnancy complicated with hemoperitoneum as a result of uterine artery rupture.

CASE REPORT: A 30 yrs. old patient G4P2L2A1 at 34 wks. of pregnancy came in emergency with severe abdominal pain, no h/o vaginal bleeding & abdominal trauma, with mild uterine contractions. She had previous two normal vaginal deliveries which went on uneventful and both babies normal one missed abortion for which evacuation & curettage done 2yrs. back. Her past medical and surgical record was nil significant. On physical examination temp was 98^0f. The blood pressure was100/60mmhr, pulse was 92B/min and respiratory rate was 24 BPM. Cardiotocography showed a reassuring trace and the presence of low intensity uterine contractions.

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Ultrasound revealed a normal fetus fluid volume. On examination the cervix was long and patulous os with no evidence of external bleeding.

Maternal Hb was 10.6gm% Subsequent Cardiotocography showed a mild fetal tachycardia while uterine contractions remained at low frequency and intensity. However the distressing back pain continued increasing. It just partially ameliorated by sitting and worsened with reucumbency. Because of low bishop score and the presence of symptoms a cesarean section was planned. After laparotomy about 1500ml of hemoperitoneum was seen in abdominal cavity, Because of excessive bleeding point was evident. After fetal extraction and deliver of the placenta, the uterus exteriorized, careful exploration of the pelvic cavity showed a rupture of right utero-ovarian vessels. Despite the effort of applying multiple haemostatic structures at the site of rupture vessel on the right side for more than 2 hrs. Given the maintained difficulty in homeostasis a lifesaving hysterectomy was performed to ensure stabilization of the patient.

DISCUSSION: Spontaneous rupture of uterine vessels is very uncommon. The incidence is 1/10000 births. The cause is still unknown. The most common places where it happens are: broad ligament (78.3%) the back of the uterus (18.3%) and the front face of the uterus (3.3%).[5]

The influence of uterine contraction on the rupture of this vessel in still unknown. It is possible that myometrial activity can lead to an increased pressure in the uterine vessels previously dilated due to the physiological increased pressure in the iliac and inferior vena cava area caused by hormonal and anatomical reasons.[6,7]

The main causes of sp. Hemoperitoneum due to obstetric reasons include. Rupture due to placental accreta, rupture of uterine vessels. HELLP syndrome or rupture of rudimentary uterine horn. Among non-obstetrics causes sp. Rupture of umbilical maternal vein. Rupture of splenic vein or arterial aneurysm. Liver rupture (sp hematoma) rupture of hemangioma or liver metastases.[8]

The particulars tortuous, non valvular and thin walled uterine artery anatomy under the high pelvic venous pressure during pregnancy are the factors predisposing for rupture. However considering the rarity of the condition there should be some additional factors involved in its pathogenesis.[9,10] For example, it has been reported that the presence of endometriosis lurious, adhesions, vascular anomalies, previous uterine surgery. Uterine fibroid and multiparty may be considered as risk factors.

Placental abruption has been the most common differential diagnosis before laparotomy. According to previously reported cases.[11] Ultrasound can be a useful tool to exclude it. Other differential diagnosis may include uterine rupture. Spontaneous Rupture of maternal umbilical vein or aneurysmal vessels, rupture of lives or spleen or the vasculature, appendix rupture and HELLP syndrome.[12,13]

CASE REPORT CENTS: The estimated blood loss was 3L. Six units of red cells and 4 units of plasma were transfused preoperatively. The patient was transferred to intensive care unit. The recovery after surgical intervention was favorable and the patient was discharged on 10th day after admission. And the body was kept for 2 days on ventilator support and recovered later on. Baby was absolutely fine at the time of discharge.

Histopathology revealed complete placenta with normal tissue. Marked hemorrhagic infiltration was found in uterus. No signs of vasculitis or other vascular disorders were observed.

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SUMMARY & CONCLUSION:

1. Intra peritoneal Hemorrhage in late pregnancy is a rare condition associated with high maternal mortality & mobility.
2. Reduction in maternal mortality may be accomplished through early laparotomy & ligation of bleeding site. Cesaerean section may be necessary to permit adequate.
3. Various reported sources of such bleeding are categorized.

A high index of suspicion is warranted. A timely diagnosis of spontaneous rupture of uterine artery can decrease the mortality and morbidity associated e- the condition.

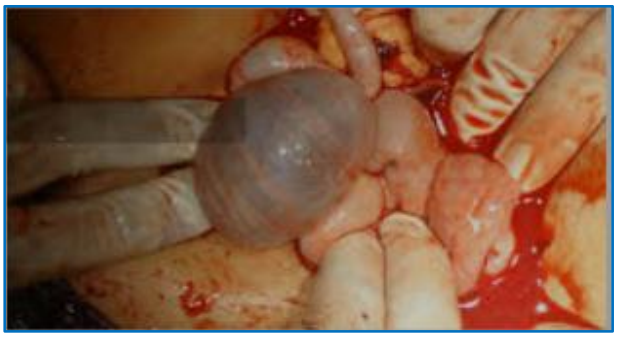

Fig. 1: Haemoperitoneum

Fig. 2: Site of Rupture Identified

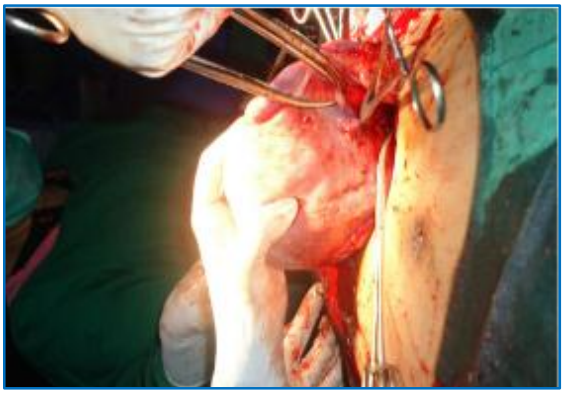

Fig. 3: Rupture Site Clamped

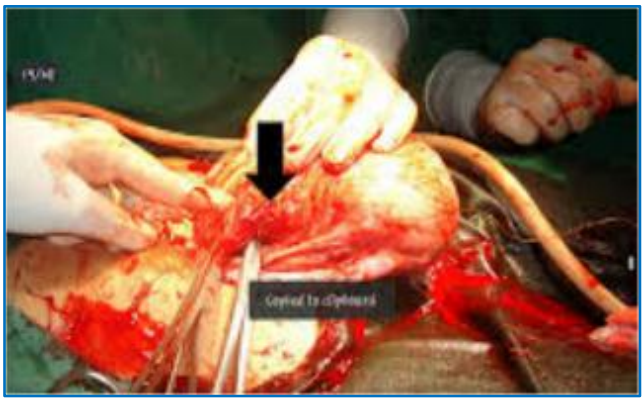

Fig. 4: Trying to Ligate the Site of Rupture

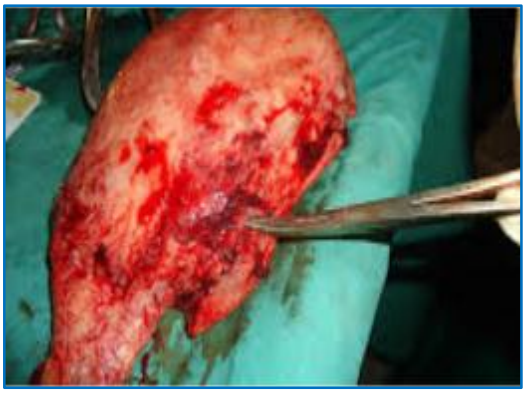

Fig. 5

Fig. 6: Specimen Showing the Site of Rupture

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