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A CASE OF COUVELAIRE UTERUS IN SECOND TRIMESTER OF PREGNANCY : A CASE REPORT

Obstetrics & Gynaecology

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ABSTRACT

Uteroplacental apoplexy or couvelaire uterus is a pathological entity which is seen alongside severe concealed placental abruption. Severe placental vascular damage causes haemorrhage and this further causes blood to intravasate into the uterine musculature and serous coat. It is difficult to predict or diagnose this condition and this incidental finding is only known upon direct visualisation or biopsy of the uterus, making its reporting infrequent. This case report is regarding a 24 year old woman, $G_3P_1L_1A_1$ previous LSCS , at 24 weeks of gestation came with bleeding per vagina and abdominal pain with absence of fetal movements. Patient underwent emergency hysterotomy and was diagnosed with Couvelaire Uterus.

KEYWORDS

INTRODUCTION

Couvelaire uterus was first described by Couvelaire in the early 1900s[1]. It is a life threatening condition and is met with in association with severe form of placenta abruptio specially concealed type. There is intravasation of blood in between the muscle bundles of uterine musculature mostly between the middle and outer muscle layers. Serosa can split causing blood to enter the peritoneal cavity, broad ligament, beneath tubal serosa and in ovarian substance. Fluid accumulation causes uterine atonicity.

It is an important cause of maternal and perinatal morbidity and mortality. It can cause complications like DIC, fetal death, severe maternal shock, postpartum haemorrhage, renal failure and hepatic dysfunction, perinatal death, stillbirth, IUGR babies.[2] It results in the need for maternal and neonatal ICU care, blood transfusions, additional operative procedures .

The risk factors associated are high birth order, short cord, poor placentation, young or advanced maternal age, hypertension in pregnancy, diabetes mellitus, smoking, polyhydramnios, trauma, thrombophilias.

Since it can be diagnosed only on direct visualisation of the uterus, it is less reported and less defined.

CASE REPORT

A 24year old woman,$G_3P_1L_1A_1$, previous LSCS, with 24 weeks of amenorrhea, with one antenatal visit outside, came with complaints of lower abdomen pain with bleeding per vagina along with absence of fetal movements for one hour. History of Gestational diabetes and Pregnancy induced hypertension was present in previous pregnancy with non progression of labor at term and emergency Lower segment Caesarean section. History of spontaneous abortion at 12 weeks was present. The previous antenatal visit revealed a blood pressure recording of 130/90mm hg and other routine investigations normal. Ultrasonography at 20 weeks revealed no fetal anomalies and anteriorly lying placenta. Patient did not follow up for further antenatal care and presented with above mentioned complaints.

On examination, General condition- fair, mild pallor present, BP was 140/90 mmHg, pulse- 100 beats per minute. Per abdomen uterus 28weeks, tense, tenderness present, FHR absent. On per vagina, cervix uneffaced and os closed, presenting part at the brim and fresh blood present on examining fingers. On Ultrasonography fetal heart rate was absent, gestational age 23 weeks, Retro placental clot present, liquor reduced. Urgent blood investigations showed haemoglobin 7.9 g/dL, PCV 25.6%, TC 21,220 cells per millimetre cube, platelet 1.0 lakhs per millimetre cube, urine albumin 2+, Kidney function test and liver function test were with in normal limits. Coagulation profile normal. Patient received anti hypertensive, antibiotics and urgent blood transfusions. Decision was taken regarding emergency hysterotomy.

Intraoperative findings revealed a dark purple coloured uterus with indurations consistent with Couvelaire uterus with blood extending up to broad ligament. Head born dead female baby weighing 570 gm was delivered out. Blood stain liqour present.Abruptio Placenta found and 570 g of retroplacental clot was present. Placenta and membranes were delivered intoto. Placenta weighed 450 gm.

Post operatively, the patient was shifted to ICU and Fresh frozen plasma transfusions along with blood transfusions were given. Patient recovered well. Histopathology of placenta showed retro placental and retromembranous haemorrhage with intervillous haemorrhage consistent with the placental abruption.

DISCUSSION

This is a case of placental abruption at gestational age of 24 weeks with couvelaire uterus during laparotomy. Patient had risk factors like history of Pregnancy induced hypertension in previous and present pregnancy, associated with this presentation and the lack to follow up and receive proper antenatal care resulted in severe maternal morbidity and fetal death. Patients need to be counselled and advised for regular checkups.

Placental abruption is defined as premature partial or complete separation of placenta after 20 weeks of gestation any time before delivery of placenta, complicates 1 in 100 to 120 pregnancies and severity is defined by the amount of maternal and neonatal morbidity and mortality. Multiple risk factors like extreme maternal age, smoking, multiparty, trauma to abdomen, polyhydramnios, hypertension, short umbilical cord, previous history of placental abruption. Couvelaire uterus is a severe form due to placental abruption and intravasation of blood into uterine musculature causing the uterus to lose contractility and increase bleeding. Management by complete evacuation of uterine contents and medical/surgical management. As a healthcare provider, one should be vigilant in monitoring antenatal bleeding and postpartum hemorrhage to reduce fetal and maternal morbidity and mortality.

CONCLUSION

Couvelaire uterus or uteroplacental apoplexy is a complication of abruptio placentae but needs to be diagnosed as complications with it can be severe and life threatening if not diagnosed timely. Its incidence increases prolongation of hospital stay and contributes to maternal and neonatal morbidity and mortality. As it can be diagnosed only on visualization of uterus, it is usually missed out and under reported.

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