

## Couvelaire Uterus With Coagulopathy - A Rare Case Report



### MEDICAL SCIENCE

**KEYWORDS :** Couvelaire uterus, placenta, placental abruption

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### ABSTRACT

*Couvelaire uterus with coagulopathy is a rare severe forms of placental abruption which has nonfatal complication. It is a result of vascular damage within the placenta leading to hemorrhage that subsequently progresses to and infiltrates within the wall of the uterus. The diagnosis is done by direct visualization or biopsy. The present report is a 23-year-old pregnant woman who had a placental abruption and classic uteroplacental apoplexy was diagnosed at the time of her cesarean section.*

#### Summary

*A case report of a 23-year-old pregnant woman who had a placental abruption and classic uteroplacental apoplexy was diagnosed at the time of her cesarean section.*

### Introduction

Couvelaire uterus with coagulopathy is a rare but fatal complication of severe form of placental abruption. This results when vascular damage within the placenta causes hemorrhage that percolates and infiltrates within the wall of the uterus. It is diagnosed by direct visualization or biopsy (or both). Therefore, its occurrence is perhaps underreported and underestimated in the literature. The subject of this report is a 23 year old pregnant woman who had a placental abruption with DIC with classic uteroplacental apoplexy diagnosed at Caesarean section (Hubbard JL, 1997).

### Case report

A 23yr old second gravida came to emergency with history of bleeding per vagina and decreased fetal movements at 38 weeks gestational age. She had previous LSCS for antepartum haemorrhage 3 years back with no hypertension in her previous pregnancy. Her clinical examination revealed severe pallor, BP 120/80 mmHg with term size, irritable uterus with difficulty in Fetal heart sound (FHS) localization. Per speculum examination revealed mild bleeding per vagina. Urgent Ultra sonography (USG) along with the blood sample for complete blood count, blood grouping and cross matching, renal and liver function tests, coagulation profile was done. Her investigations revealed-

CBC :Hb % - 7.4, TLC - 9700, MCV - 76.3, MCH - 25.5, MCHC - 33.5, PLC - 55000

LFT : Bilirubin T/D - 1.0/0.2, ALP - 2115.4, SGPT/SGOT - 1079/599, Total protein/ albumin - 5.06/ 2.92

RFT : Serum creatinine -2.1, urea - 98, LDH - 905

PT : C - 19 sec, T- 28 sec, INR- 2.40, BT -17.31sec. CT- 20.18 sec

APTT : C - 29.9, T- 54.7

### Blood group - "A" POSITIVE

USG revealed no evidence of fetal heart activity with fundal placenta and noretroplacental clot.

Impression of abruption with Intra uterine death with coagulopathy was made. Urgent transfusion with 2 units of blood, 2 units FFP and 4 units of platelets was done. Labour was induced with cerviprime gel but after 10 hrs, she became very unstable, severely anaemic, hypotensive with BP 80/60 mmHg, tachycardia, increased fundal height with tense and tender abdomen. Her repeat Hb% and platelet count was 5.3 & 43,000, respectively.

In view of above findings with failure of induction and risk of

scar rupture, she was taken up for caesarean section under GA. On laparotomy, there was haemoperitoneum (approx.300cc), scar dehiscence and the entire uterus was deep plum in colour (Figure 1). A fresh still born male baby 3 kg was delivered. Approximately 1/3 rd of placenta was separated and there was retroplacental clots of 2 litres which was subsequently removed (Figure 1). Uterus was closed in layers. Patient tolerated the procedure well. Post operative period was uneventful. Patient was transfused with 2 units of blood. She was discharged on 12th postoperative day with Hb of 9.8gm%.





**Figure 1:** Intraoperative picture of anterior(A) and posterior wall (B)of uterus showing couvelaire uterus. C. Retroplacental clot removed and placed in a kidney tray

#### Discussion :

Placental abruption complicates about 1% of pregnancies and is a leading cause of vaginal bleeding in the latter half of pregnancy. The key factor in the pathophysiology is hemorrhage at the decidual-placental interface. In rare cases of concealed and mixed haemorrhage the retroplacental extravasation of blood may be so extensive as to reach the serosal surface, causing bruising and discoloration. This is apparent at the time of Caesarean section and is known as Couvelaire uterus. Small episodes may escape clinical detection, but severe grades impact significantly on fetal and maternal morbidity and mortality, with the most frequent complications being fetal death, severe maternal shock, disseminated intravascular coagulopathy, and renal failure. Important risk factors for the development of abruptio placentae are previous abruption, hypertensive diseases, abdominal trauma, growth restriction, and smoking. Abruption involving more than 50% of the placenta is associated with DIC and it is frequently associated with fetal death. This is due to the activation of extrinsic pathway of coagulation by thromboplastin released from placental separation. The diagnosis is essentially made on the clinical picture that includes vaginal bleeding (usually dark blood), abdominal pain, and uterine contractions. Ultrasound has poor sensitivity in diagnosing placental abruption and findings are negative in most of the cases. (Hall, 2009),(Oyelese, 2006) (Glantz , 2002)

Treatment of abruption will vary depending upon maternal and fetal condition ,gestational age and cervical status. The essence of management is restoration of circulating volume followed by delivery of the fetus and placenta, most often by cesarean section when the diagnosis is clear and the fetus alive and viable. Disseminated intravascular coagulopathy should be managed aggressively (Glantz , 2002) (Hall, 2009) (Habek , 2008).

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