

## Couvelaire Uterus – An Overview

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### ABSTRACT

*The placental abruption stated infrequently is known as “Couvelaire uterus” or “utero-placental apoplexy” It occurs due to vascular damage within the placenta which causes hemorrhage that progresses to and infiltrates the wall of the uterus.*

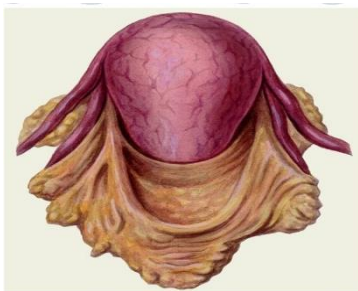
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### INTRODUCTION

Couvelaire uterus (also called as uteroplacental apoplexy) is a life-threatening disorder in which loosening of the placenta (abruptio placentae) causes bleeding that penetrates into the uterine myometrium forcing its way into the peritoneal cavity [1–3]. It is a syndrome that can only be diagnosed by direct visualization or biopsy (or both) [4].



**Fig 1:** Couvelaire uterus-Uteroplacental Apoplexy

### DEFINITION

Extravasation of blood from retroplacental haemorrhage into myometrium.

### INCIDENCE

It is a rare non-fatal complication of severe abruption. It is estimated to complicate 5% of all cases of abruption. The entity is

infrequently reported and the incidence is difficult to estimate because the diagnosis is made by direct visualisation or biopsy [5–7].

Few cases have been noted and reported.

1. **1966**- A case report of Traumatic rupture of a couvelaire uterus by Norman A. Beischer.

2. **1997** – A case report of Classic uteroplacental apoplexy by Hubbard JL, Hosmer SB.

3. **2007** – A case Report of Couvelaire uterus without placental abruption, by Shreedevi Korti, et.al.

4. **2014** – A case report of 23 years old women with couveilaire uterus by Manju Rathi, Sunil kumar Rathi, Manju Purohit And Ashish Pathak.

5. **2015** – A Case report of Couvelaire Uterus by Mahendra G, Ravidra.S, Pukale, Vijayalakshmi.S, Priya.

### CAUSES

Couvelaire uterus is caused when haemorrhage from placental blood vessels seeps into decidua basalis causing placental separation, followed by infiltration in the lateral portions of the uterus. Occasionally, the infiltrations reach the peritoneal cavity [8].

## SYMPTOMS AND SIGNS

- Patients usually have pain secondary to uterine contractions,
- uterine tetany or localized uterine tenderness.

Signs can also due to abruption placentae comprising

- uterine hypertonus,
- fetal distress,
- fetal death,
- And rarely, hypovolaemic shock (shock secondary to severe blood loss).
- The uterus may assume a bluish/purplish, mottled appearance due to extravasation of blood into uterine muscle.

## PATHOPHYSIOLOGY

"Couvelaire uterus" is an occurrence where the retroplacental blood enters through the thickness of the wall of the uterus into the peritoneal cavity [9]. This may occur after abruptio placentae. The hemorrhage that gets into the decidua basalis eventually splits the decidua, and the haematoma may remain within the decidua or may extravasate into the myometrium (the muscular wall of the uterus) [10]. The myometrium develops weakened and may rupture due to the increase in intrauterine pressure associated with uterine contractions. This may lead to a life-threatening obstetric emergency needing urgent delivery of the fetus.

## DIAGNOSIS

- Can only be diagnosed on laprotomy when uterus looks dark port wine coloured and blood or fluid effuses out of the uterus.
- The condition should be suspected when intensity of uterine contractions decrease in a patient with accidental haemorrhage in labour

## PREVENTION

The occurrence of couvelaire uterus can be prevented by abruptio placentae [11]. This

comprise proper management of hypertensive states of pregnancy; treatment of maternal diseases like diabetes mellitus, and other collagen disease complicating pregnancy; prevention of trauma during pregnancy; mothers should also avoid smoking or consumption of alcohol during pregnancy [12].

## TREATMENT

The uterus should be evacuated and contractions should be stimulated using intravenous oxytocin; hysterectomy (the removal of the uterus) may be needed in some cases [13–15].

## PROGNOSIS

The fetus may be compromised if there is prolonged delivery due to non-contractile uterus; severe bleeding may cause hypovolemic shock in the mother.

## CONCLUSION

Couvelaire uterus can be reduced by prevention of abruption placenta, proper management of hypertensive states of pregnancy and prevention of trauma during pregnancy. Mothers should also avoid or consumption of alcohol during pregnancy.

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