

### **A Rare Case Report of Caesarean Scar Ectopic Pregnancy**

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**Type of Publication:** Case Report

**Conflicts of Interest:** Nil

#### **Abstract**

Caesarean scar pregnancy is one of the rarest forms of ectopic pregnancy. Little is known about its incidence and natural history. The diagnosis and treatment of caesarean scar pregnancy (CSP) is challenging. We report a case of ruptured caesarean scar pregnancy (CSP) who presented with acute abdomen and hypovolemic shock which needed emergency Laparotomy with resection of ectopic mass and uterine rent repair. Post operative period was uneventful.

#### **Introduction**

Caesarean scar pregnancy (CSP) is defined as implantation into the myometrial defect occurring at the site of the previous uterine incision. The prevalence of caesarean scar pregnancy is estimated to be approximately 1 in 2000 pregnancies and these pregnancies may be ongoing potentially viable pregnancies or miscarriages within the scar.<sup>1</sup> The true prevalence of caesarean scar pregnancies is likely to be somewhat higher than estimated in the literature as some cases will end in the first trimester, either by miscarriage or termination, and go unreported and undiagnosed. The first case of CSP was reported by Larsen and Solomon in 1978.<sup>2</sup> there is a spectrum of severity associated with pregnancies implanted into caesarean section scars and the natural history is uncertain.

Increasing the use of imaging studies such as Ultrasonography and magnetic resonance imaging (MRI) helps in detecting these cases. We describe a case of caesarean pregnancy treated by Emergency Laparotomy and uterine rent repair.

#### **Case report**

We report a case of 27 year old lady (gravid 2, Para 1) with history of previous term caesarean delivery 1 year back, who presented to casualty with acute pain abdomen since 4 hrs and spotting per vagina. Patient did not have other significant medical or surgical illness in the past. Patient had irregular menstrual periods and she was not sure of her Last menstrual period .Patient did not use any mode of contraception since her last child birth. On Examination she was noted to have Pulse rate of 124 beats per minute and Blood pressure 86/46 mm hg, her abdomen was tense, tender with guarding and rigidity. On bimanual examination Uterus was anteverted, Normal size; fornicial fullness and tenderness were present. Urine pregnancy test was done and found to be positive. An emergency trans abdominal ultrasound showed (in fig 1) no intrauterine pregnancy or Adnexal mass, except free fluid in Morrison pouch .However, a detailed transvaginal scan( in fig 2) showed irregular heterogeneous lesion of 5.2× 3.1 cm noted in right adnexa adjacent to right ovary, small cystic area noted 3.6×3 cm in uterus with thin septation suggestive of pseudo gestational sac, so with a

provisional diagnosis of ruptured ectopic, Patient was stabilised and taken for emergency Laparotomy by right para median incision .2 litres of haemoperitoneum noted , bilateral fallopian tubes and ovaries were normal. On lower anterior aspect of Uterus in place of Previous scar a rent of around 2×0.5 cm noted with placental tissue extruding out. Rent was repaired with intermittent 2-0 vicryl suture. Bilateral uterine artery ligation done, haemostasis secured. Post operative period was uneventful.

### **Discussion**

Caesarean scar ectopic is one of the rarest of all ectopic pregnancies. The exact cause of CSP is still not clear. There is an early invasion of the myometrium and it is presumed that this occurs through a microscopic tract in the caesarean section scar tissue.<sup>3</sup> The incidence has been reported to be 1:1 800 to 1:2 200 pregnancies.<sup>3, 4</sup> The gestational age at diagnosis ranged from five to 12.4 weeks (mean 7.5 ± 2.5 weeks) and the time interval between the last caesarean and the CSP was six months to 12 years.<sup>5</sup>

It is life threatening condition as it causes excessive haemorrhage and risk of uterine rupture. There are many risk factors implicated in the development of CSP. These include the number of caesarean sections, the time interval between the previous caesarean section and the subsequent pregnancy, and the indications for the previous caesarean section, but it is not clear whether these factors are directly related to CSP.<sup>5</sup>

Vial et al.<sup>6</sup> proposed that there are two different types of pregnancies implanted in a caesarean scar: the first type progressing into the uterine cavity as the gestational sac grows and develops, so with the potential to reach a viable gestational age, but with the risk of massive bleeding from the implantation site; and the second with progression

deeper towards the serosal surface of the uterus with the risk of first trimester rupture and haemorrhage.

The immediate complications of caesarean scar pregnancy are uterine rupture, severe bleeding, need for hysterectomy, and maternal morbidity. Our patient underwent emergency Laparotomy and evacuation of product of conception from hysterotomy scar and repair of uterus with traditional methods. She left the hospital with an uneventful postoperative period.

To determine whether a Caesarean Scar Pregnancy (CSP) has occurred, USG in the sagittal position can be used to indicate a clear uterine cavity and an empty cervical canal.<sup>7</sup>

The availability of Uterine Artery Embolisation (UAE) in cases of Caesarean ectopic pregnancies treated has contributed to successful management without any haemorrhage.<sup>8</sup>

### **Conclusion**

With increased rates of Caesarean section and use of In Vitro Fertilisation, we can expect an increased number of Caesarean scar ectopic pregnancies. Caesarean scar ectopic pregnancies can have very fatal and poor outcomes, including uterine rupture, massive haemorrhage and maternal death. Thus, it is important that early and accurate diagnosis of Caesarean scar pregnancy is obtained in order to avoid complications and preserve fertility.

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