International Journal of Science and Research (IJSR)
ISSN: 2319-7064
SJIF (2022): 7.942

Caesarean Scar Ectopic Pregnancy: A Case Report

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Abstract: ***Caesarean scar ectopic pregnancy is a rare form of ectopic pregnancy where the blastocyst implants on a previous Caesarean section scar. This article reports a rare case of a 27yearold female with a history of two Caesarean deliveries, presenting with symptoms of amenorrhea and intermittent bleeding. Diagnosis was confirmed through sonography and histopathological examination after laparotomy. This case highlights the importance of early diagnosis and prompt management to prevent severe maternal morbidity and preserve fertility.***

Keywords: Caesarean scar pregnancy, Ectopic pregnancy, Sonography, Laparotomy, Maternal morbidity

1. Introduction

Caesarean scar ectopic pregnancy is one of the rarest forms of ectopic pregnancies. It is defined as implantation of a blastocyst on a previous Caesarean scar (1). The incidence of Caesarean scar ectopic has increased due to increase in number of Caesarean deliveries. Early diagnosis of this can be achieved using sonography. It is very important because a delay can lead to increased maternal morbidity and mortality. Early diagnosis enables prompt management and improves outcomes by preserving future fertility (4, 5). Magnetic Resonance Imaging (MRI) has important role when sonography is equivocal or inconclusive before therapy or intervention (2). We report a rare case of G3P2l2 with two prior Caesarean deliveries, diagnosed as a Caesarean scar ectopic pregnancy through sonography. . Patient underwent laparotomy and on histopathological examination Caesarean scar pregnancy was confirmed

2. Case

A 27 - year - old female presented to Outpatient Department of Obstetrics & Gynecology with chief complaint of two month amenorrhea with bleeding per vaginum on and off since 10 - 12 days. She had a history of dilation and evacuation in the present pregnancy due to incomplete abortion. The histopathological report showed hyperplastic endometrium and decidual reaction and no villi were seen. In obstetric history, she was G3P2l2 with previous two Caesarean deliveries. Her first Caesarean section was due to oligohydrnios and second one was due to previous cesarean section. On general physical examination, the patient appeared pale. . On per speculum, cervix was normal, no discharge per vaginum was seen. passage of fresh bleeding in the form of clots was noted on per speculum examination. On bimanual examination, cervix pointed upward, uterus was bulky, retroverted and bilateral fornices were free with no tenderness. On investigation, routine blood and urine investigations were normal patient's Hb level was 8.3 mg/dl s/o anemia. On admission, the BHCG level was 9280 IUL, and after 48 hours, it increased to 12120 IUL, showing less than the expected doubling. Trans vaginal ultrasound revealed empty uterine cavity with clearly defined endometrium, irregular small gestational sac like structure of six week seen in lower uterine segment anteriorly with no cardiac activity. The cervical canal was empty, and the adnexa were normal. On Doppler examination, hyperechoic rim of choriodecidual reaction with excessive vascularity suggestive of caesarean scar ectopic pregnancy. a diagnosis of cesarean scar pregnancy. On per vaginal examination; torrential hemorrhage was noted. Patient was scheduled for laparotomy. Intraoperative findings revealed signs of placental implantation at the site of the previous scar. . Torrential bleeding was noted. Uterine artery ligation was tried to stop haemorrhage. Attempts to control haemorrhage failed and immediate decision of Obstetric hysterectomy was taken. Uterus and cervix removed. Tissue was sent for histopathological examination and diagnosis of Caesarean scar ectopic pregnancy was confirmed on histopathology report. Patient was followed up with serum Beta human Chorionic Gonadotropin (ß - hCG) level, till B - HCG came to non - pregnant level.

3. Discussion

Caesarean scar (ectopic) pregnancy occurs when a pregnancy implants on a Caesarean scar. It is rarest of all ectopic pregnancies. The incidence is estimated to be 1/1800 to 1/2500 in overall Caesarean deliveries (8, 10). It is life threatening condition, causes excessive haemorrage and risk of uterine rupture. It can be called by various names as “Caesarean scar pregnancy”, Caesarean ectopic pregnancy or simply Caesarean scar ectopic. The diagnosis of this type of ectopic pregnancy is very difficult and false negative diagnosis can lead to major complications (7).

- The pregnancies with previous caesarean section have increased the risk of placenta praevia, placental abruption, placenta accreta, percreta as well as ectopic pregnancies in future (8). There are various theories which explain the etiology and mechanism of Caesarean ectopic pregnancy, the most accepted one is blastocyst invade into the myometrium through a microscopic dehiscent tract, which may be due to previous uterine surgery like Caesarean section, manual removal of placenta etc (5, 7). As per another theory in absence of previous uterine surgery, Caesarean ectopic pregnancy can occur due to trauma done in assisted reproduction techniques (9)
- The most common clinical presentation of Caesarean ectopic pregnancy is painless vaginal bleeding, often without specific clinical signs. For its diagnosis endovaginal ultrasonography and color flow Doppler are very helpful. MRI has important role when sonography is equivocal or inconclusive before therapy or intervention (5). There should be differentiation of Caesarean scar

pregnancy from cervical pregnancy. To differentiate from a cervical pregnancy, in trans vaginal sonography no myometrium between the gestational sac and bladder must be seen, because the gestational sac grows into the anterior portion of the isthmus (3, 8). To determine whether a Cesarean Scar Pregnancy (CSP) has occurred, USG in the sagittal position can be used to indicate a clear uterine cavity and an empty cervical canal (9).

- Recently, a study of 26 patient, out of which suspected 19 Caesarean ectopic pregnancies treated with intra muscular and intragestational methotrexate given with successful outcome. After the treatment, typically, there was an initial increase in the human chorionic gonadotropin serum concentrations as well as in the volume of the gestational sac and their vascularization. After a variable time period the values of serum human chorionic gonadotropin decreased, as expected.
- Various case reports of patients with Caesarean scar ectopic pregnancy even in the absence of bleeding, supports our management as the surgical option. This includes elective laparotomy and excision of the gestational mass. The benefit of surgery is less recurrence because of the resection of the old scar, with a new uterine closure. Other is a shorter follow - up period. In another study with Caesarean scar pregnancy cases, surgical excision of scar is considered as a key management and helpful to prevent recurrence.

4. Conclusion

Caesarean scar ectopic pregnancies can have very fatal and poor outcomes, including uterine rupture, massive haemorrhage and maternal death (6, 10). Thus, it is important that early and accurate diagnosis of Caesarean scar pregnancy is obtained in order to avoid complications and preserve fertility (7).

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