

A Rare Case Report of Caesarean Scar Ectopic Pregnancy

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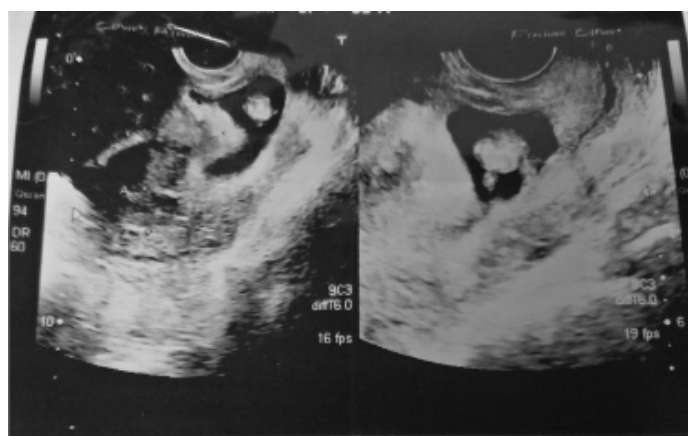
ABSTRACT

Caesarean scar ectopic is one of the rarest of all ectopic pregnancies. It is defined as when a blastocyst implants on a previous Caesarean scar. The incidence of Caesarean scar ectopic has increased due to increase in number of Caesarean deliveries. Early diagnosis of this can be done by using sonography. It is very important because a delay can lead to increased maternal morbidity and mortality. Early diagnosis leads to prompt management and improves the outcome by allowing preservation of future fertility. Magnetic Resonance Imaging (MRI) has important role when sonography is equivocal or inconclusive before therapy or intervention. We are reporting a rare case of G3P2I2 with previous two Caesarean deliveries, diagnosed as Caesarean scar ectopic pregnancy with the help of sonography and MRI. Patient underwent laparotomy and on histopathological examination Caesarean scar pregnancy was confirmed.

Keywords: Accreta, Caesarean section, Percreta

CASE REPORT

A 25-year-old female presented to Outpatient Department of Gynaecology with chief complaint of two month amenorrhea with bleeding per vaginam on and off since 10-12 days. She had history of dilation and curettage in present pregnancy in view of incomplete abortion. The histopathological report showed hyperplastic endometrium and decidual reaction and no villi were seen. In obstetric history, she was G3P2I2 with previous two Caesarean deliveries. Her first Caesarean section was due to fetal distress and second one was due to placenta previa. General physical examination was normal. On per speculum, cervix was normal, no discharge or bleeding per vaginam was seen. 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. On admission B-HCG level was 7118 IU/L, and after 48 hours B-HCG value was 8108 IU/L, which showed less than 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. Cervical canal empty and adnexa normal [Table/Fig-1]. On Doppler examination, hyperechoic rim of choriodecidual reaction with excessive vascularity suggestive of caesarean scar ectopic pregnancy. These findings were confirmed on MRI-pelvis which showed a poorly defined heterogenous signal intensity space occupying lesion of 30 × 23 mm seen in myometrium extending from endometrial cavity with complete disruption of junctional zone, it was reaching upto serosa, no defined invasion of uterine wall was seen. It showed heterogenous signal intensity on T1W and T2W sequences with multiple internal flow voids and tiny cystic lesion within. Myometrial scar was not separately visualized, a diagnosis of caesarean scar pregnancy or possibility of invasive molar pregnancy was considered. Patient was planned for laparotomy. Intraoperative findings; soft and vascular mass seen at the site of previous scar [Table/Fig-2]. Incision was given over bulge and products of conception were gently removed. It was communicating with uterine cavity, edges of scar tissue were excised and freshened, gentle uterine curettage was done. Tissue was sent for histopathological examination and diagnosis of Caesarean scar ectopic pregnancy was confirmed. Patient was followed up with serum Beta human Chorionic Gonadotropin (β-hCG) level, till B-HCG came to non-pregnant level.



[Table/Fig-1]: Ultrasound image-Caesarean scar pregnancy.



[Table/Fig-2]: Intraoperative-Caesarean scar pregnancy.

DISCUSSION

A Caesarean scar (ectopic) pregnancy occurs when a pregnancy implants on a Caesarean scar. It is rarest of all ectopic pregnancies [1]. Incidence estimated in overall caesarean delivery is 1/1800-1/2500 [2]. It is life threatening condition, causes excessive haemorrhage and risk of uterine rupture. It can be called by various names as "Caesarean scar pregnancy", Caesarean ectopic pregnancy or simply Caesarean scar ectopic [3]. The diagnosis of this type of ectopic pregnancy is very difficult and false negative diagnosis can lead to major complications.

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. 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 dehiscence tract, which may be due to previous uterine surgery like Caesarean section, manual removal of placenta etc. [3]. As per another theory in absence of previous uterine surgery, Caesarean ectopic pregnancy can occur due to trauma done in assisted reproduction techniques [4].

The most common clinical presentation of Caesarean ectopic pregnancy is painless vaginal bleeding without any specific clinical signs. For its diagnosis endovaginal ultrasonography and color flow Doppler are very helpful [5,6]. MRI has important role when sonography is equivocal or inconclusive before therapy or intervention. 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 [7]. 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 [8].

With the use of transvaginal sonography and saline infusion sonography, even in nonpregnant female it is possible to assess postcaesarean section uterine wall integrity. Caesarean section scar defect is identified by the presence of fluid within the incision site or filling defect at the presumed site of the scar [6].

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 [8]. 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 [4]. 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 [6,9]. In another study with Caesarean scar pregnancy cases, surgical excision of scar is considered as a key management and helpful to prevent recurrence [7].

The availability of Uterine Artery Embolization (UAE) in cases of Caesarean ectopic pregnancies treated has contributed to successful management without any haemorrhage [10].

CONCLUSION

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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