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Case Report

A misdiagnosed cesarean scar pregnancy: a case report

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ABSTRACT

A caesarean scar pregnancy (CSP) is a rare form of ectopic pregnancy in which gestational sac is Implanted inside the previous caesarean scar. It is a life-threatening form of abnormal Implantation of embryo within the myometrium and fibrous tissue of the previous scar following caesarean section. Transvaginal sonography (TVS) is the gold standard for diagnosis of CSP. If CSP is diagnosed early and correctly by TVS then patient outcome is better. One third of the cases are misdiagnosed. A patient G2P1L1A0 with previous one caesarean section came with history of amenorrhea 3 months and, pain abdomen and spotting P/V since morning, she had an ultrasound report with her showing, 8 weeks of intra-uterine pregnancy with no cardiac activity. Impression was missed abortion. Patient was prepared for suction and evacuation under GA. During the procedure, patient started bleeding heavily, her vitals deteriorated, an emergency laparatomy was done and it was found to be a scar pregnancy. Scar was excised; the patient withstood the surgery well. Post-operative period was uneventful.

Keywords: Ectopic pregnancy, Caesarean scar pregnancy, Abnormal implantation, Previous scar

INTRODUCTION

Caesarean scar pregnancy, a term implies abnormal implantation within the myometrium of a prior caesarean delivery scar. Its incidence approximates 1 in 2000 normal deliveries and has increased along with the caesarean delivery rate.[1]

Women with CSP usually present early, and pain and bleeding are common. Still up to 40% of women are asymptomatic and diagnosis is made during routine sonographic examination in first trimester.[2] Here, we presented a case of CSP which was misdiagnosed as a case of missed abortion.

CASE REPORT

A 30 year old female, unbooked, G2P1L1A0 came in emergency with complaint of; amenorrhea for 3 months, pain abdomen for 1 day, bleeding P/V was from morning.

Her past medical and family history was unremarkable.

No H/o fever, giddiness or syncopal attacks, any injury, or any other drug use.

Menstrual history

She had amenorrhea of 3 months but was not sure of the exact date of her last menstrual period.

Obstetrical history

She had one male baby, 3 years old, delivered by caesarean section. Indication was fetal distress.

On examination patient GC was good; she was fully conscious and well oriented. Her vitals were stable with a pulse rate of 92/min, BP 110/60 mmHg and normal oxygen saturation and temperature. There was mild pallor with normal respiratory and CVS system.

Per abdomen examination

Abdomen was soft, no tenderness or distension present.

Per speculum examination

Mild bleeding present, coming out through os. Cervix and vagina were healthy.

Per vaginum examination

8 weeks sized anteverted, non-tender uterus.

Patient had consulted some other doctor a day before for pain abdomen, where ultrasonography was done which showed 9 weeks intra-uterine pregnancy with absent cardiac activity.

Impassion was missed abortion. Exact location of gestational sac was not mentioned in the report.

As patient had pain and she was very uncooperative, a suction and evacuation under general anesthesia was planned.

During the procedure of suction and evacuation patient started pouring on the table, was bleeding heavily, her vitals fell down. As there was profuse bleeding with absent of product of conception during curettage, the process was immediately stopped, vagina was packed tightly, and patient was taken up for urgent laparatomy.

Abdomen was opened through a Pfennensteil incision along the old skin scar. Adhesions were present. A transverse incision was given just above the adherent bladder.

A bluish bulge was seen at the site of previous scar.

Scar pregnancy was excised and removed, bleeding was minimized by local injection of vasopressin, and gap was seen and felt in the anterior myometrium at the old scar. This uterine defect was repaired.

The patient was transfused with 2 units of packed cells during intra-operative and post-operative period. Products of conception were sent for histopathological examination. Post-op was uneventful and patient was discharged on 5th post-op day.

The patient was called for follow up after a week for the assessment of bhCG level and for ultrasound and doppler to ensure that the gestational sac has disappeared and to also watch for possible arterio-venous malformation.

Histology confirmed the presence of decidua and chorionic villi and the diagnosis of caesarean scar pregnancy were also confirmed.

Figure 1: Laparotomy view shows bulged out product of conception through previous scar site.

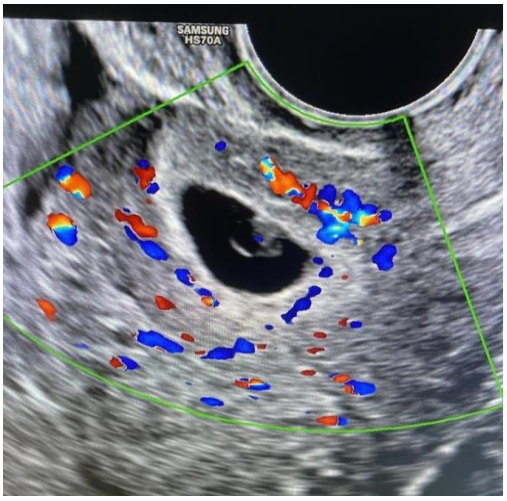

Figure 2: Ectopic gestational sac shows regular margins, thick decidual reaction and vascularity around it. Embryo shows cardac activity also.

DISCUSSION

Scar ectopic pregnancy is becoming increasing common all over the globe.

It is an abnormal implantation of embryo within the myometrium and the fibrous tissue of the previous scar following caesarean section, hysterotomy, dilatation and curettage, and abnormal placentation, surgery on uterus like myomectomy, metroplasty, hysteroscopy and manual removal of placenta. However, the scar ectopic pregnancy is found to be the most common following caesarean section.

Studies have shown that multiple caesarean section may not increase the risk of this condition and it is also unknown if it is affected by either one- or two-layer uterine incision closure during caesarean.

The early and accurate diagnosis with timely management of CSP can prevent pregnancy complications such as haemorrhage, uterine rupture and can preserve fertility.

Pathophysiology

Mechanism of this condition remains uncertain. It is possible that scar implantation occurs due to defects in the scar in the form of microtubular tract which develops due to poor healing of the previous trauma caused by caesarean section or other surgeries on the uterus.[3]

There are two different kinds of caesarean scar ectopic pregnancies: (a) type l (endogenic): one that grows inside into the uterine cavity as gestational sac develops and has the potential to reach viable gestation but with risk of placenta accreta and major obstetrics haemorrhage; type ll (exogenic): This grows outward toward the bladder with potential for scar rupture and intra-abdominal bleeding in first trimester of pregnancy which is most dangerous.[4,5]

Presentation

Most of the CSPs are asymptomatic. Few can present with light vaginal bleeding or mild abdominal pain. There are no pathognomonic signs or symptoms of caesarean scar ectopic pregnancy. Many times, it does not have any specific symptoms and can be easily misdiagnosed. This can lead to life threatening haemorrhage during pregnancy or Curettage, uterine rupture, disseminated intravascular coagulation and even a death. Sometimes undiagnosed scar ectopic pregnancy can present with heavy bleeding, hemoperitoneum and shock after termination of early pregnancy or missed abortion. Hence, early and accurate diagnosis is important for effective treatment to prevent these catastrophic complications.[6,7]

Diagnosis

The ultrasound mainly TVS, is the gold standard for diagnosis of scar ectopic pregnancy. With TVS correct and early diagnosis of such pregnancies is possible with sensitivity of 84.6%.[2] Experienced sonologists may give the accurate diagnosis which will help in timely effective management. Diagnosis depends on symptoms, clinical manifestation, history of previous scar, serum bhCG level and transvaginal sonography. Transvaginal ultrasonological diagnostic criteria for diagnosing cesarean scar implantation (RCOG Green-top Guideline No 21, 2016)- (a) empty uterine cavity; (b) gestational sac a solid mass of trophoblast located anteriorly at the level of the internal os embedded at the site of the previous lower uterine segment caesarean section scar; (c) thin or absent layer of myometrium between the gestational sac and the bladder; (d) evidence of prominent trophoblastic/placental circulation on doppler examination; and empty endocervical canal.

However, it is difficult to differentiate scar ectopic pregnancy from anterior cervical ectopic pregnancy, inevitable abortion or a cervicoisthmic pregnancy. Hence, high resolution and colour ultrasound scanning is essential for differential diagnosis. Magnetic resonance imaging (MRI) can be used as a second line investigation if the diagnosis is equivocal.

Management

These pregnancies are associated with severe maternal morbidity and mortality.

There is insufficient evidence to recommend any one specific intervention over another, but the current literature supports a surgical rather than medical approach as the most effective.

The treatment approach depends on various factors like gestational age, hemodynamic stability, availability of endoscopic expertise, further fertility and feasibility of serial follow up by serology and imaging.

Medical treatment consisting of intramuscular methotrexate or ultrasound-guided local injection into the gestational sac or surgical interventions which includes hysteroscopy, laparoscopy, laparotomy and uterine artery embolization. Surgical interventions in the form of surgical excision with scar repair with or without additional haemostatic measures should be considered. Various haemostatic measures in form of intrauterine balloon tamponade by Foley's catheter, local injection of vasopressin, prior selective uterine artery embolization and bilateral uterine artery ligation are advised.

Non-invasive therapy with methotrexate may be considered when gestational age is <8 weeks, serum bhCG level <5000 mIU/ml, no cardiac activity, mass diameter <25 mm, myometrial thickness <2 mm.

Limitations of methotrexate therapy

They are as follows- (a) blood loss during and after treatment; (b) long term follow up with bhCG and serial imaging. Local administration of methotrexate, TVS-or TAS- guided, is considered in cases where because of poor vascularization of fibrous scar, absorption of systemic methotrexate is limited.[8]

Apart from methotrexate, local injection of potassium chloride, hyperosmolar glucose, etoposide and crystallize trichosanthin has also been reported.

Primary open surgical treatment should be considered in patients who do not respond to medical and/or other surgical treatments, when presented too late, haemodynamically unstable patient, and in case of non-availability of endoscopic expertise and facilities.

Some literature recommend it as best treatment option due to complete removal of scar pregnancy with repair of scar and quick return of serum bhCG level to normal in 1-2

weeks. Excision and repair of old scar result in removal of microtubular tracts and thus reduce the risk of recurrence.

CONCLUSION

Caesarean scar pregnancy is a rare and life-threatening complex disorder with increasing occurrence in recent years. Accurate early diagnosis and effective management preferably surgical are the tools to clear the maze and to reduce the maternal morbidity and mortality. Effective treatment of scar pregnancy should be carried out in first trimester to achieve the optimal treatment objectives, including termination of pregnancy before rupture, resection of pregnancy mass with proper suturing which will preserve future fertility and prevent recurrence.

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REFERENCES

1. Ash A, Smith A, Maxwell D. Caesarean scar pregnancy. BJOG. 2007;114(3):253-63.
2. Rotas MA, Haberman S, Levgur M. Cesarean scar ectopic pregnancies: etiology, diagnosis, and management. Obstet Gynecol. 2006;107(6):1373-81.
3. Rosen T. Placenta accreta and cesarean scar pregnancy: overlooked costs of the rising cesarean section rate. Clin Perinatol. 2008;35(3):519-29.
4. Vial Y, Petignat P, Hohlfeld P. Pregnancy in a cesarean scar. Ultrasound Obstet Gynecol. 2000;16(6):592-3.
5. Maymon R, Halperin R, Mendlovic S, Schneider D, Vaknin Z, Herman A, et al. Ectopic pregnancies in Caesarean section scars: the 8 year experience of one medical centre. Hum Reprod. 2004;19(2):278-84.
6. Cunningham F, Leveno KJ, Bloom SL. Implantation and placental development. Williams Obstetrics. 25th ed. New York, NY: McGraw Hill Education; 2018: 80-123.
7. Tritsch IE, Monteagudo A, Santos R, Tsymbal T, Pineda G, Arslan AA. The diagnosis, treatment, and follow-up of cesarean scar pregnancy. Am J Obstet Gynecol. 2012;207(1):44.e1-13.
8. Seow KM, Huang LW, Lin YH, Lin MY, Tsai YL, Hwang JL. Cesarean scar pregnancy: issues in management. Ultrasound Obstet Gynecol. 2004;23(3):247-53.

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