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Caesarean Scar Ectopic Pregnancy: A Case Report

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Abstract

Introduction: Caesarean scar pregnancy (CSP) is when implantation of the trophoblast occurs in the niche of previous caesarean scar site. The incidence of CSP is documented to be as high as 1:1688 of overall pregnancies, but it still remains underdiagnosed and underreported. The treatment objectives focus on prevention of complications and preservation of fertility. It is very important because a delay in diagnosis and prompt treatment can lead to increased maternal morbidity and mortality.

Case Report: We are reporting a rare case of G3P1L1A1 with 5 weeks 6 days period of gestation with previous 1 LSCS with K/C/O T2 DM with Rh Negative pregnancy diagnosed to have Caesarean scar ectopic pregnancy with the help of sonography. Patient underwent suction and evacuation of scar ectopic pregnancy followed by surgical excision of previous LSCS scar and repair by vaginal route.

Results: Patient underwent suction and evacuation of scar ectopic pregnancy followed by surgical excision of previous LSCS scar and repair by vaginal route.

Keywords: Caesarean Scar Site, Suction and Evacuation, Excision of Previous LSCS Scar

Introduction

Caesarean scar pregnancy (CSP) is when implantation of the trophoblast occurs in the niche of previous caesarean scar site. Prevalence of CSP is directly proportional to caesarean section rate, which has significantly increased during the last decades and has reached 21.1 percent. The incidence of CSP is documented to be as high as 1:1688 of overall pregnancies, but it still remains underdiagnosed and underreported. Its increasing incidence is also found to be associated to increase of endometrial scarring due to procedures like uterine curettage, manual removal of placenta, increase in number of myomectomies, hysteroscopy and assisted reproductive techniques.

Surgical techniques like use of single layer uterine closure may play a role in increasing frequency of CSP. At the beginning of the first trimester, CSP can only be found accidently on performing routine Ultrasound in asymptomatic women. Otherwise, CSP can manifest as severe haemorrhage, acute lower abdominal pain or collapse due to haemorrhagic shock. The treatment objectives focus on prevention of complications and preservation of fertility. . It is very important because a delay in diagnosis and prompt treatment can lead to increased maternal morbidity and mortality. The surgical management with caesarean scar repair is both safe and effective treatment modality. It helps to preserve fertility and can hence reduce the complications of CSP.

We present a case of ectopic pregnancy in caesarean section scar detected in an asymptomatic woman who had come for routine Antenatal checkup.

Case Report

A 31 year old, G3P1L1A1 with previous 1 LSCS at 5 Weeks 6 Days of gestation, presented to Obstetrics and Gynecology department of Rajarajeswari Medical College and Hospital, Bangalore with Transvaginal sonography showing A cystic structure in the previous LSCS scar area with minimal peripheral vascularity. The gestational sac had a yolk sac and tiny fetal pole with no cardiac activity. The myometrium adjacent to the scar area is thinned out with the sac almost reaching upto the serosa. Residual myometrial thickness was 2.5mm. Colour Doppler reveal minimal peripheral vascularity suggestive of Scar Ectopic Pregnancy. She was otherwise asymptomatic. She had history of 1 previous cesarean section performed 9 years back in view of fetal distress and history of one previous spontaneous abortion at 2 months of amenorrhoea 1 year back. She had taken Inj. ANTI-D 150µg in view of Rh Negative pregnancy. Patient was Medically managed with Inj. METHOTREXATE 150mg IM taken on 13/8/2024. She then got a repeat scan after one week which showed the above mentioned findings. Given the high risk of rupture and bleeding, patient opted for surgical management. Patient was consented for Suction and Evacuation of scar ectopic pregnancy followed by surgical excision of previous LSCS scar and repair by vaginal route. Postoperative course was uneventful.

Figure 1: Ultrasound image- Cesarean scar ectopic pregnancy

Figure 2: Ultrasound image- Cesarean scar ectopic pregnancy

Figure 3: Ultrasound image- Cesarean scar ectopic pregnancy

Figure 4: Ultrasound image- Cesarean scar ectopic pregnancy

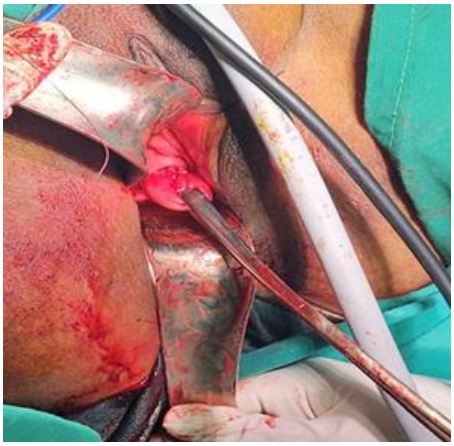

Figure 5: Intraoperative Surgical excision of cesarean scar and repair done by vagina route

Discussion

The first case of a cesarean scar ectopic was reported in 1978 in G2P1, 23 year South African Zulu women. As a result of increasing rates of cesarean section in recent decades, there has been substantial increase in this gestational pathology incidence. The actual mechanism of this condition is uncertain. Variety of theories includes: (a) the endogenous migration of the gestational sac through either a wedge defect in the lower uterine segment or a microscopic fistula within the scar (b) invasion of placental villi into the uterine wall at a point of scar dehiscence and (c) low oxygen tension of scar tissue attracting implantation of the fertilized oocyte. [1]

In scar pregnancy cases, the gestational sac is completely surrounded by myometrium, and fibrotic tissues of the scar and is separated from the endometrial cavity. It is believed that the causing factor prevails the weak vascular support in the uterine front wall in some patients who have undergone caesarean section, where blastocyst implants to the fibrous scar tissue generated by the previous caesarean section and to the myometrium prior to the formation of decidua basalis[1]

Two different types of scar pregnancies have been identified. Type I is believed to be caused by implantation in the scar tissue of the previous caesarean section with expansion towards the cervico-isthmic space or the uterine cavity. In this type, a deep implantation in a caesarean scar tissue defect towards the bladder and the abdominal cavity is associated with a higher risk for adverse pregnancy outcomes such as uterine rupture, uncontrollable bleeding, emergency laparotomy and hysterectomy, and maternal morbidity. The second type (Type II) of scar pregnancies refers to implantations growing inside the uterine cavity. Type II scar pregnancies are believed to be caused by deep

implantation into scar defect tissues with infiltrating growth into the uterine myometrium, as well as uterine serosal surface, which may result into uterine rupture and massive haemorrhage in the first trimester of pregnancy, with a potential for loss of fertility, when massive haemorrhage necessitates emergency laparotomy and hysterectomy[1]

Clinical symptoms of CSP include 1st trimester vaginal bleeding and abdominal pain while many patients are asymptomatic at diagnosis. The differential diagnosis includes threatened miscarriage, incomplete miscarriage, cervical pregnancy and malignant trophoblastic tumor.

Similar to patients with ectopic pregnancies in other locations, TVS is essential for diagnosis.

The CSP was diagnosed using the following criteria: a history of low-transverse caesarean delivery in the lower uterine segment, positive urine pregnancy test or serum β-HCG level, and fulfillment of the following ultrasonography criteria (a) Development of the gestational sac in the anterior portion of the lower uterine segment; (b) Empty uterine cavity and cervical canal; and (c) Absence of healthy myometrium between the gestational sac and the bladder. Magnetic resonance imaging (MRI) and three-dimensional (3-D) power Doppler ultrasound might be useful in the cases in which the diagnosis remains unclear after transvaginal sonography (TVS) examination. [2]

The Type I “on-the-scar” or endogenic form, mostly appears to have a considerable ultrasonographic clear layer of myometrium between the anterior uterine wall and the formed placenta. The ultrasonographic features of Type II “in-the-niche” or exogenic form, include a thin myometrial interface below the placenta. [1]

As for the management of CSP, treatment options include expectant management, administration of methotrexate, local injection of embryocides like potassium chloride into the gestational sac or combination of both, surgery or uterine artery embolization.

The expectant, conservative and surgical management has a success rate of up to 41.5%, 75.2% and 97.1% respectively. [10]

The benefit of surgery is less recurrence because of the resection of old scar, with a new uterine closure and a shorter follow up period. In one study with cesarean scar pregnancy cases, surgical excision of scar is considered as a key management and helpful to prevent recurrence.

Surgical management includes evacuation by dilatation and curettage, hysteroscopic resection, or excision via laparotomy, laparoscopy or transvaginally.

Conclusion

Caesarean scar ectopic pregnancies can be fatal and can have very poor outcomes which include uterine rupture, massive hemorrhage, shock and maternal morbidity. Termination of the pregnancy in first trimester should be considered and treatment options should be individualized. Hence, it is essential that early and accurate diagnosis and timely intervention of cesarean scar ectopic pregnancy is done so that we can avoid complications and preserve fertility.

References

1. Caesarean Scar Pregnancy: A Case Report and a Literature Review George Valasoulis [1,2,†], Ioulia Magaliou [1,†], Dimitrios Koufidis [1], Antonios Garas [1], Alexandros Daponte [1,*]
2. Management of persistent caesarean scar pregnancy after curettage treatment failure Zhi-Da Qian [1,✉], Yue Weng [1], Yong-Jiang Du [1], Chun-Fen Wang [2], Li-Li Huang [1]

3. Cignini P, Giorlandino M, Caserta L, Dominici L, Giorlandino C. The importance of early diagnosis in Caesarean scar pregnancy. J Prenat Med. 2007;1(2):29–31.
4. Aich R, Solanki N, Kakadiya K, Bansal A, Joshi M, Nawale A. Ectopic Pregnancy in caesarean section scar: A case report. Radiology Case Reports. 2015; 10 (4): 68–71.
5. Fylstra DL, Pound-Chang T, Miller MG, Cooper A, Miller KM. Ectopic pregnancy within a Caesarean delivery scar: a case report. American Journal of Obstetrics and Gynecology. 2002;187(2):302–04.
6. Jurkovic D, Hillaby K, Woelfer B, Lawrence A, Salim R, Elson CJ. First-trimester diagnosis and management of pregnancies implanted into the lower uterine segment Caesarean section scar. Ultrasound in Obstetrics and Gynecology. 2003;21(3):220–27.
7. Fylstra DL. Ectopic pregnancy not within the (distal) fallopian tube: aetiology, diagnosis, and treatment. Am J Obstet Gynaecol. 2012;206(4):289–99.
8. Rizk B, Holiday CP, Owens S, Abuzeid M. Cervical and caesarean scar ectopic pregnancies: diagnosis and management. Middle East Fertility Society Journal. 2013;18(2):67–73.
9. Maymon R, Halperin R, Mendlovic S, Schneider D, Herman A. Ectopic pregnancies in a Caesarean scar: review of the medical approach to an iatrogenic complication. Hum Reprod Update. 2004;10:515–23.
10. Timor-Tritsch IE, Monteagudo A, Santos R. The diagnosis, treatment, and followup of Caesarean scar pregnancy. Am J Obstet Gynecol. 2012;207:44.e1-13.