

MANAGEMENT OF A CASE OF RECURRENT CESAREAN SCAR PREGNANCY, WITH TWIN GESTATION – A CASE REPORT

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Abstract

Background: Ectopic pregnancy in cesarean scar is a rare but well recognized potential complication following previous cesarean delivery. It is a condition in which the embryo implants within the myometrium at the site of a previous cesarean scar. The incidence of recurrent cesarean scar ectopic gestation is less and rarer than a primary cesarean scar ectopic. We report a case of twin recurrent Cesarean Scar Pregnancy (CSP), who presented with vague lower abdominal pain, spotting and was diagnosed by ultrasound as type 2 CSP. On laparotomy cesarean scar was found dehiscent with the remnants of gestational sacs protruding into the urinary bladder. The gestational sacs were removed, and the scar was repaired. Early diagnosis of CSP is crucial to prevent devastating sequelae like rupture, hemorrhage, need for hysterectomy and maternal death.

INTRODUCTION

Implantation of gestation sac at any site other than endometrial cavity is defined as ectopic pregnancy. Cesarean Scar Pregnancy (CSP) refers to a pregnancy that is implanted on or in a scar from a prior cesarean birth. Increase in the rate of cesarean delivery has led to a substantial increase in the cases of cesarean scar pregnancy. It constitutes 6.1% of all ectopic pregnancies, in patients with history of at least one Cesarean delivery.^[1] As a life-threatening disease, Cesarean Scar Pregnancy is associated with major complications like uterine rupture and bleeding. Twin gestation with cesarean scar ectopic have been reported only in a few case reports.^[2] We present the management of a unique case of recurrent CSP with twin gestation.

There are two recognized types of hysterotomy scar ectopic pregnancies. Type 1 develops in the myometrium and grows toward the uterine cavity, whereas type 2 progresses exophytically toward the uterine serosa.^[3] Type 2 pregnancies have an ominous prognosis because they may result in spontaneous uterine rupture, hemorrhage, and maternal death. In case of massive haemorrhage there is potential for hysterectomy which will cause loss in fertility.

Symptoms include pelvic pain and vaginal bleeding in the first trimester. Many women are asymptomatic at diagnosis. The investigation of choice is transvaginal ultrasound (TVUS), which may be combined with a transabdominal scan for a panoramic view. In equivocal cases, magnetic

resonance imaging (MRI) will confirm or refute the diagnosis.

CASE REPORT

A 24 yearsold fourth gravida with history of 2 months amenorrhea, presented to our clinic with history of bleeding Per Vagina (PV). Patient had undergone a full-term cesarean delivery previously along with one medical termination of pregnancy and an ectopic gestation treated medically. Detailed history taking revealed that the patient previously had a CSP, treated medically with systemic Methotrexate. Patient was hemodynamically stable and on pelvic examination uterus was bulky with minimal bleeding PV [Figure 1].

She underwent a transvaginal ultrasound examination, which revealed twin gestation sacs in the lower segment of uterus with focal thinning of the scar area. Magnetic Resonance Imaging (MRI) was performed for further confirmation and was reported as sacs in lower uterine segment protruding through the scar and abutting the urinary bladder [Figure 2]. Patient was explained the possibility of twin gestation recurrent CSP and consent was obtained for laparotomy [Figure 3]. The risks of intraoperative blood loss necessitating transfusion and hysterectomy was also explained to the patient. Laparotomy was performed through Pfannenstiel incision under spinal anesthesia. On direct visualization of the uterus, there was dehiscence of the previous cesarean scar protruding towards bladder. Excision of the scar with the gestational

remnants was done and sent for histopathology. Uterine defect was sutured in layers. Histopathology confirmed the presence of pregnancy. Patient had around 250 ml of blood loss during the procedure. Patient had a stable course in the hospital and was discharged on 4th postoperative day. Post-operative follow-up with Beta Human Chorionic Gonadotrophin (β -HCG) was carried out and patient recovered uneventfully. β -HCG was less than 5mIU by the 14th postoperative day.



Figure 1: Ultrasound images of ectopic in cesarean scar

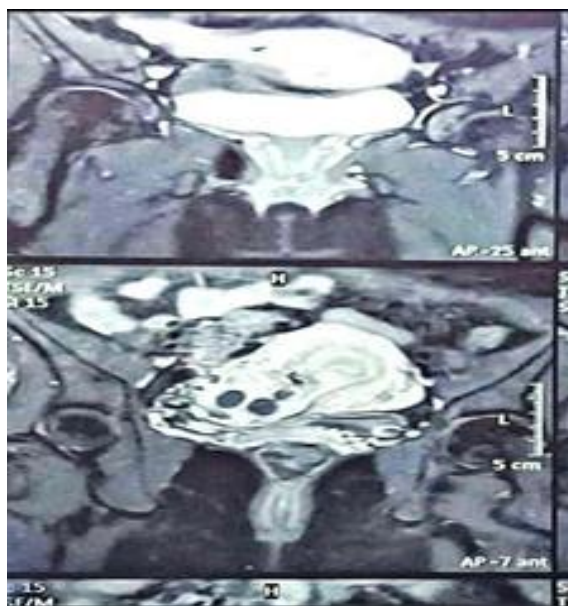


Figure 2: MRI image of twin ectopic gestation in cesarean scar



Figure 3: Laparotomy during cesarean scar in ectopic pregnancy

DISCUSSION

CSP is implantation of pregnancy in a previous cesarean scar. Incidence of CSP has been reported to be 1/2000.^[3,4] The first case of cesarean scar ectopic was described by Larsen and Solomon in 1978.^[5] Incidence of recurrent CSP is approximately 3.5 to

5% of all CSP cases.^[4] The pathophysiology behind CSP is explained as, any scar on the myometrium or endometrium predisposes to implantation of gestation sac at that site. There is not much of a correlation between the number of previous cesarean deliveries and ectopic pregnancy. Our patient had only one previous cesarean delivery and presented to us with recurrent CSP. Most of these patients present clinically with mild bleeding and lower abdominal discomfort, which was the case with our patient. Rarely patient present themselves with profuse bleeding or shock. Ultrasound is considered the main diagnostic tool. Combined transabdominal and transvaginal scan have better accuracy for diagnosis of such conditions.^[3,4] The key for diagnosis of CSP is a high index of suspicion in previous cesarean patients. MRI is the second line diagnostic tool to aid confirmation. Around 13.6% of CSPs are misdiagnosed as missed miscarriage, low implantation or cervical ectopic.^[6]

CSP is classified into two major types, (1) endogenous type 1, where the sac grows towards the cavity and could lead to viable pregnancies and (2) exogenous type 2, with the sac growing towards the bladder, which may lead to rupture of uterus.⁴ Our patient most probably had the exogenous type 2 CSP, with the sac found protruding towards the urinary bladder. Lin S Y et al,^[7] have described a new ultrasound grading system of CSP. Our patient fell under grade 3 according to the ultrasound classification.

- Grade 1 gestational sac embedded in less than half myometrium
- Grade 2 gestation sac occupying more than half depth of myometrium
- Grade 3 is gestation sac bulged out of cesarean section
- Grade 4 gestation sac bulging and forming an amorphous mass with rich vascularity at cesarean scar

Treatment modalities include medical management using systemic methotrexate or intralesional methotrexate and uterine artery embolization. Preferred surgical methods are laparoscopic excision of scar with pregnancy, hysteroscopic resection or combined hystero-laparoscopic methods of excision of scar. Suction evacuation can be done only in selected cases with at least 4.5 mm of myometrium. Laparotomy and excision of scar is the choice when the above expertise for minimally invasive procedures is not available, or patient is clinically unstable necessitating open procedure. Ben Nagi et al,^[9] in their case report of three recurrent CSP in the same patient, have described treating initial two ectopic gestations with suction evacuation, and the third pregnancy by operative excision of scar, which resulted in successful fourth intrauterine pregnancy. The author suggests that surgical excision reduces the chances of recurrent CSP. This was one reason we decided to proceed with operative excision of scar in our patient to prevent recurrence. The low prevalence of recurrent scar pregnancy indicates implantation as

a chance event rather than affinity to the scarred uterus. Probably the risk of implantation is proportional to the size of anterior wall defect. As per Hasegawa et al,^[10] recurrent scar ectopic could be conservatively treated with intralesional methotrexate, but surgical repair as initial or secondary procedure after local conservative management should be preferred in those patients who desire a successful intrauterine pregnancy in the future. Our patient had recurrent CSP with twin gestation and was eager to conceive in the future. Hence we opted for surgical excision of the scar, to facilitate intrauterine pregnancy in subsequent conceptions. This case has been reported in view of recurrent scar ectopic which by itself is rare and being associated with twin gestation makes it a unique case, rarely reported in the literature.

CONCLUSION

Patient with history of caesarean delivery should be monitored carefully during subsequent pregnancies to allow early diagnosis of caesarean scar pregnancy, which would greatly reduce the mortality and morbidity in the mothers. Choice of treatment modality, medical or surgical should be appropriately selected based on the patient clinical status, parity and fertility. Chances of recurrence is less if scar ectopic is managed by surgical excision compared to medical management.

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