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Case Report

A case of caesarean scar ectopic pregnancy presented as post medical termination of pregnancy with cervical hematoma

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ABSTRACT

A 36 years old woman (P2L2MTP2 with previous 2 LSCS) came with complaints of pain in abdomen and bleeding per vaginum with severe anaemia. Patient had a history of surgical MTP done 3 weeks back. USG was suggestive of hematoma at the isthmico-cervical junction. A provisional diagnosis of post-surgical MTP ruptured/perforated uterus with hypovolemic shock was made. A laparotomy was carried out. Intraoperatively, the isthmico-cervical junction was ballooned up and after incision over the isthmic scar of previous LSCS a large blood clot was retrieved. Histopathology of the scar tissue confirmed the diagnosis of scar ectopic pregnancy. In all cases of previous caesarean scar uterus, ultrasonography must be performed before first trimester surgical MTP to rule out the caesarean scar ectopic pregnancy. If USG is not performed preoperatively and with persistent postoperative vaginal bleeding, then always rule out the partial disruption of unknown caesarean scar ectopic pregnancy by USG and serum Beta hCG levels.

Keywords: Previous 2 LSCS, Surgical MTP, Scar ectopic pregnancy, Placenta accreta, Cervical pregnancy, Placenta previa

INTRODUCTION

Caesarean scar pregnancy (CSP) is a rare form of ectopic pregnancy defined as an ectopic pregnancy embedded in the myometrium of a previous caesarean scar.[1] The incidence ranges from 1:1,800 to 1:2,500 pregnancies.[2] Gestational age at diagnosis ranges from 5 weeks to 12 weeks.[1] The increasing rates of caesarean section, rapid development and increasing rates of *in vitro* fertilisation and embryo transfer (IVF-ET) are resulting in an increased incidence of CSP as well as heterotopic CSP.

CASE REPORT

Mrs. ABC, a 36 year old woman P2L2MTP2 with previous 2 LSCS came with history of bleeding per vaginum on and off since the past 3 weeks, increased since the past 24 hours associated with pain in abdomen, giddiness and generalised weakness. She had a history of surgical MTP done 3 weeks back at 5.5 weeks of gestation. The procedure was uneventful and patient remained asymptomatic for 5-6 days post-operatively after which she started bleeding per vaginum on and off, which was managed conservatively. Patient presented to the emergency department with complaints of increase in bleeding per vaginum with giddiness since the last 24 hours. On general examination, patient had tachycardia with normal blood pressure; severe pallor was present. Abdominal examination revealed a soft abdomen with tenderness present in the suprapubic region. On per vaginal examination cervix was short, pulled up and ballooned up, external os was closed, large tender mass with restricted mobility of about 7-8 cm was filling up all the fornices and was in continuity with the cervix, normal sized uterus was felt above the mass. Urine pregnancy test was positive and her beta-hCG levels was 7230 IU/l and haemoglobin was 4.5 gm%. Pelvic ultrasound revealed a bulky uterus with large heterogenous mass (7.2×6.3×6

cm) in the lower body of uterus bulging from the anterior margin most likely representing a chronic intramural hematoma due to its subacute rupture at scar site.

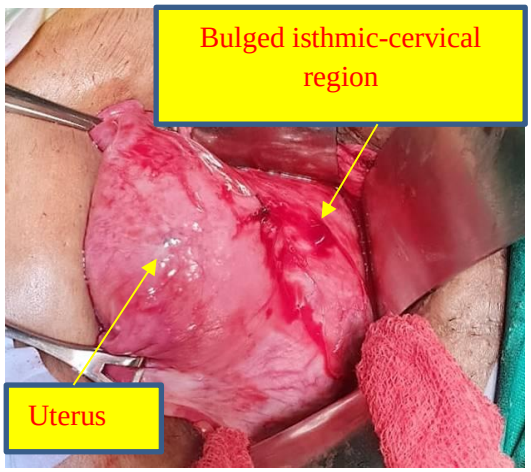

Figure 1: 7×8 cm soft mass at isthmico-cervical region.

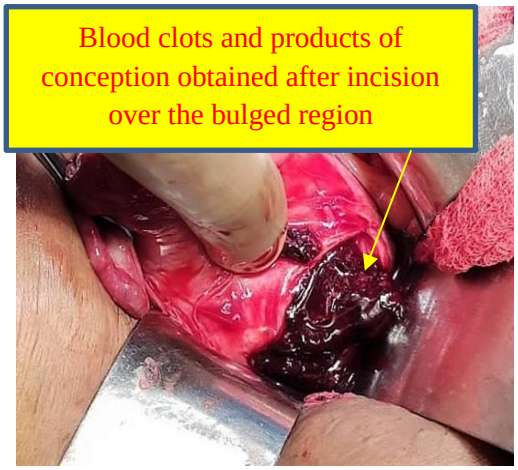

Figure 2: Incision made over the mass.

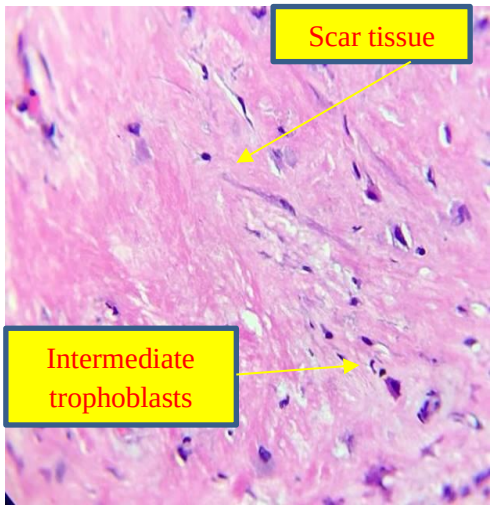

Figure 3: Intermediate trophoblasts seen in scar tissue.

Figure 4: Smooth muscle seen with chorionic villi.

A provisional diagnosis of post MTP ruptured/perforated uterus with hematoma was made. Informed consent for exploratory laparotomy taken and she was shifted to the operation theatre. Intraoperative findings revealed 7 cm×8 cm soft mass at the isthmico-cervical region which was ballooned up, body of the uterus was 4 cm×3 cm over the isthmic region, bladder was advanced over the previous scar at the isthmus, previous scar area was thinned out and bulged, bilateral adnexa was normal (Figure 1). Transverse incision made over previous scar site and 200-300 gm of blood clot with products of conception removed (Figure 2). Scar tissue was excised and was sent for histopathological examination with POC'S, rest of the uterine cavity was empty, 2 units of PCV was transfused intraoperatively. Postoperatively patient was stable with no complications.

Postoperatively, histopathological report confirmed the diagnosis of scar ectopic pregnancy which was suggested by the presence of fragments of myometrium lined with haemorrhage, sheets of decidua and chorionic villi with scar tissue lined with necrosis, chorionic villi and haemorrhage (Figure 3 and 4).

DISCUSSION

CSP is a rare form of ectopic pregnancy defined as an ectopic pregnancy embedded in the myometrium of a previous caesarean scar and it is one of the rarest form of pregnancy.[1]

Clinical presentation in a patient with CSP ranges from vaginal bleeding with or without pain due to ruptured uterus and hypovolaemic shock. Many previously undiagnosed cases with CSP presents with bleeding per vaginum, hemoperitoneum and shock after a trial of termination of pregnancy done for missed abortion.[3] In our case, patient presented with bleeding per vaginum and pain in abdomen after surgical MTP.

Differential diagnosis included spontaneous abortion in progress and cervico-isthmic pregnancy.[4] Ultrasound imaging is useful to differentiate between them. CSP is

diagnosed by transvaginal USG with doppler and by MRI. Sonographic criteria for a CSP includes empty uterus with an empty cervical canal with detection of placenta &/or gestational sac with or without fetal pole, with or without cardiac activity in the anterior part of the isthmic region of the uterus, thin or absent myometrium layer between the gestational sac and the bladder, because the gestational sac grows into the anterior portion of the isthmus.[1,2,5]

There are 2 types of CSP which can be differentiated by the depth of invasion. The first type is implanted deeply into the scar defect, up to the serosal lining and possibly up to the bladder or abdominal cavity. The second type implants in the scar but grows away from the serosal lining towards the uterine cavity. Type 1 is the most dangerous of both due to the risk of uterine rupture and haemorrhage.[5] The possibility of CSP invading the myometrium could be explained by the characteristics of uterine caesarean scars in a non-pregnant female. Majority of the scars are well healed but in few females the anterior uterine wall was deficient due to impaired postoperative healing.[6]

Treatment for CSP needs to be individualized based on the gestational age, size and type caesarean scar pregnancy, myometrial thickness, preservation of fertility, hemodynamic status of the patient. CSP can be managed conservatively with methotrexate injection both systemic and USG guided intra sac injection, surgical management includes check curettage, hysteroscopic resection of the scar ectopic, laparoscopic or laparotomy resection.[4] The pathological trophoblastic invasion associated with CSP can lead to life threatening complications in pregnancy like uterine rupture, massive haemorrhage, placenta accreta, placenta previa and due to this early termination of pregnancy is recommended.[7]

In this patient, an ultrasound to confirm the intrauterine location of the pregnancy was not performed before surgical termination of the pregnancy. During surgical MTP as it was in the early weeks of pregnancy minimal POCs were retrieved. Though the procedure was uneventful, it probably resulted in disruption of the early scar pregnancy which resulted in slow bleeding and cervical hematoma. No USG was performed in the immediate post-operative period when patient had bleeding per vaginum. An unusual aspect of the case however was the delayed presentation of the cervical hematoma, which was due to the partial disruption of the CSP during the surgical MTP.

Lisovaja et al in their retrospective case series on CSP had 2 patients who were misdiagnosed as miscarriage and were referred to tertiary centre for profuse vaginal bleeding during and after a legal abortion. Later they were diagnosed as CSP and were managed surgically.[8]

Timor-Tritsch et al in their retrospective case series had one patient with CSP who was misdiagnosed as intrauterine pregnancy and underwent surgical termination at 7 weeks of gestation but after 67 days of the procedure she presented with vaginal bleeding. USG was suggestive of an empty uterine cavity, hysterotomy scar niche with high vascularity of the anterior uterine wall. Intramuscular methotrexate was administered with the suspicion of retained gestational trophoblastic disease. However, patient developed severe vaginal bleeding a few days later and imaging studies were suggestive of AV malformation. Patient was later managed by bilateral uterine artery embolization followed by hysterectomy.[9]

CONCLUSION

Due to increase in caesarean section rates in recent times, the incidence of scar ectopic pregnancy is on the rise. So it is imperative to perform a USG pelvis to confirm the site of the pregnancy especially in previous scar uterus before surgical MTP.

Recommendations

If preoperative USG is not performed and post operatively the patient is having repeated episodes of bleeding per vaginum then early evaluation with an USG pelvis and serum beta hCG levels is recommended. This will rule out this rare complication of unknown disruption of early scar ectopic pregnancy and its consequences.

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