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RESEARCH ARTICLE

CESAEREAN SCAR PREGNANCY COMPLICATED WITH PLACENTA ACCRETA SYNDROME IN THE SECOND TRIMESTER OF PREGNANCY: A CASE REPORT

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ABSTRACT

Background:-The aim of this paper is to present a rare case of cesarean scar ectopic complicated with placenta increta in the second trimester of pregnancy. **Case Report:** A 32 yrs old G3P2L2 with h/o previous 2 cesarean section presented to us with complaints of bleeding per vaginum since 1 month.Per vaginal examination was suggestive of a cystic mass of size 4*5 cm in the right adnexa. Transvaginal ultrasound was suggestive of a hypo echoic mass of size 4.5*3.6 cm in the lower uterine segment with increased vascularity and encroaching the myometrium thereby suggesting placenta increta. Her quantitative βh-hcG was 322 mIU/ml .Patient underwent a suction and evacuation followed by an exploratory laparotomy as the size of the mass did not decrease. Obstetric hysterectomy with b/l conservation of fallopian tubes and ovaries was performed as the excision of the lesion lead to massive hemorrhage. Histopathology findings were consistent with products of conception and placenta increta. The patient was discharged on post operative day 12 and her follow up after 2 weeks was uneventful. **Conclusion:** Cesaerean scar ectopic complicated with morbidly adherent placenta is rare and prompt diagnosis and treatment is needed to avoid catastrophic complications.

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INTRODUCTION

Implantation of clinically detectable pregnancy into a scar is very rare but is associated with severe maternal morbidity and significant mortality from very early in pregnancy. An accurate and timely prenatal diagnosis of this condition is pivotal to avoid catastrophic complications such as uterine rupture, massive vaginal bleeding and morbidly adherent placenta (placenta accrete, increta and percreta) which may lead to hysterectomy.(2)In women with a history of previous cesarean sections, the percentage of scar defect has found to be between 20-65% on ultrasound. The incidence of accrete syndrome was cited as 1 in 533 deliveries.(4) The frequency of cesarean scar pregnancy has been reported to be approximately 1 in 2000 pregnancies. 40% of women are asymptomatic whereas rarely early rupture can lead to an abdominal pregnancy.(1)Diagnosis of cesarean scar pregnancy is mainly based on the radiological findings, the main modality being a transvaginal ultrasound examination.

The following points on the ultrasound can aid in the diagnosis; an empty uterine cavity, an empty cervical canal, an intrauterine mass seen in the lower uterine segment and absence of a healthy myometrium between bladder and the gestational sac. Treatment standards are lacking and several options are available and will depend on the general condition of the patient and the desire to preserve fertility. Fertility preserving options include the use of methotrexate (locally/ systemic) either alone or combined with conservative surgery like visually guided suction curettage or transvaginal aspiration, hysteroscopic removal or isthmic excision. Uterine artery embolisation has been tried preoperatively to minimize hemorrhage risk.Moreover, hysterectomy may be required with bleeding uncontrolled by conservative methods.(1)

CASE REPORT

A 32 yrs old gravid 3, parity 2 and live 2 came to the emergency room of our hospital with h/o amenorrhea since 3

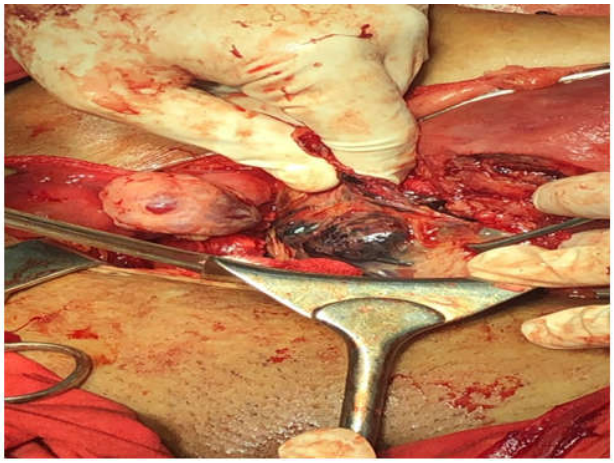

Figure 1. Caeserean scar pregnancy complicated with placenta increta

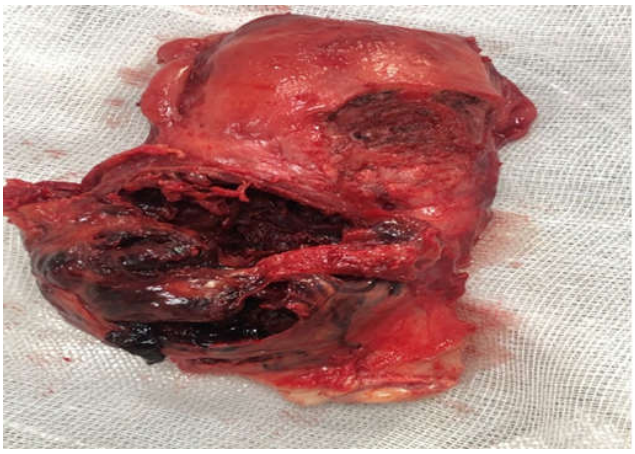

Figure 2. Gross specimen of uterus with cervix and the scar ectopic

months (14 weeks 2 days) followed by bleeding per vaginum since 1 month. The patient had a history of 2 prior cesarean sections and were uneventful in the post operative period. Patient had no significant medical history. On admission, the patient was pale and had a pulse rate of 120 bpm with blood pressure and oxygen saturation within normal limits. On systemic examination, her abdomen was soft, uterus was 12 weeks size. On per speculum examination, os was closed, cervix was deviated to the left, bleeding present. On per vaginal examination, mass of size 4*5 cms was felt in the right adnexa, firm in consistency, cervix was deviated to the left. Her complete blood count showed hemoglobin of 9 gm%. Other biochemical tests including liver function and kidney function tests were within normal limits. Quantitative β hCG was 322 mIU/ml. A transvaginal ultrasound was performed demonstrating a 4.5*3.6 cm hypo echoic lesion with cystic areas seen in the anterior uterine wall more in the lower uterine segment suggestive of retained products of conception. The lesion appeared to encroach the myometrium with increased vascularity on colour Doppler thereby suggesting placenta acrreta.

Decision of performing suction and evacuation along with exploratory laparotomy was taken and an informed consent regarding the same was obtained. General surgeon was available for backup if needed for any degree of bladder invasion. A complete preanaesthetic workup and availability of cross matched blood products was made.

Procedure started with suction evacuation where around 40-50 cc of retained products of conception was suctioned out. As the size of the mass did not decrease, decision of proceeding through the abdominal incision was made. Adhesions were present between the anterior wall of uterus and the bladder which were separated by sharp dissection. There was evidence of scar ectopic of size 4*5 cms with evidence of increta seen at the previous scar site. Attempt to excise this lesion was made but due to massive hemorrhage, decision of obstetrics hysterectomy was taken. The patient was transfused with adequate blood and blood products and was observed in the surgical ICU for 2 days. Histopathology report was suggestive of products of conception with evidence of placenta increta. Patient was transferred to general ward and was discharged on post operative day 14 and was asked to follow up after 1 week.

DISCUSSION

Human implantation relies on the interaction between the blastocyst trophoectoderm and the cells of decidualised endometrium [9]. The decidual defect following a uterine scar may have an adverse effect on early implantation by creating condition for preferential attachment of the blastocyst to scar tissue and facilitating abnormally deep invasion of the extra villous trophoblast.The incidence of scar ectopic is small owing to the fact that the cesarean scar is limited to a very small surface with little impact on the rest of the endometrial lining the uterine cavity thus allowing for a normal implantation. The uterine circulation in women with a previous uterine cesarean section has increased resistance in the uterine artery and decreased blood flow as compared to women with a previous vaginal delivery[3]. This suggests a possible relationship between the presence of a poorly vascularised area with a secondary impact on placental implantation. The rise in frequency of placenta accreta corresponds temporally to rise in cesarean section rates. Placenta increta and percreta are rare representing 20% of the cases of placenta accreta.

The failure of placenta to separate normally from the uterus during surgery is typically accompanied by severe postpartum hemorrhage. Thus antenatal screening of placenta accrete is pivotal to ensure that the surgery can be planned in a tertiary care hospital and be managed by a multidisciplinary team[2]. Transvaginal ultrasound has become the primary screening tool for evaluation of women at risk for placenta accreta. The most common and most predictive sonographic findings associated with placenta accrete is loss of myometrial interface with enlargement of underlying arcuate vasculature[7].The addition of colour Doppler suggests chaotic intraplacental blood flow and the presence of increased blood flow in the retro placental space and aberrant vessels crossing between placental surface. The sensitivity of ultrasound with colour doppler imaging in the diagnosis of placenta accreta varies between 77% to 100% .More recently MRI has been introduced to evaluate placenta accreta. The overall sensitivity of MRI is 94.4% in the prenatal diagnosis of invasive placentation.MRI can add information in cased of placenta percreta but the cost and limited access makes it impractical for screening for placenta accrete in routine clinical practice. To day, there is no unique approach of management and treatment of cesarean scar pregnancy combine with morbidly adherent placenta. The most therapeutic management in such cases is hysterectomy. In a case report published by Sharrone Holtzman *et al*., 2020, patient underwent a total laparoscopic

hysterectomy with b/l salpingectomy ,b/l ureterolysis and cystoscopy. Herman et.al[5]reported an elective cesarean section at 35 weeks of gestation with delivery of a healthy baby but there was massive blood loss originating from the uterine scar that required hysterectomy and blood transfusions. Because of the high risk of uterine rupture and hemorrhage, it is recommended to interrupt the pregnancy as soon as the diagnosis of ectopic can be made without a doubt. Another case report published in the journal by Jean-bernard Dubuisson[8] , treated retained placenta percreta in a cesaerean scar via a laparoscopic hysterectomy followed by laparoscopic suturing of the uterine defect. Another case study published by Jasenko Fatusic[6] showed that the patient underwent a curettage followed by hysterectomy with bilateral salpingectomy with bilateral ovarian preservation one month later, in view of local findings of uterus-placenta implanting and penetrating the lower uterine segment and intraoperative hemorrhage. Other modalities which can be used are local or systemic methotrexate, hysteroscopic treatment, dilatation and curettage and laparoscopic removal of gestational sac. In our case, we first tried out suction and evacuation but we had to proceed with laparotomy for obstetrics hysterectomy due failure of the prior procedure and massive hemorrhage.

CONCLUSION

Cesarean scar ectopic along with morbidly adherent placenta is a potentially life threatening condition. An important aspect in managing such cases is early and accurate diagnosis followed by prompt management to avoid complications like massive hemorrhage which can lead to serious morbidity and mortality. A transvaginal ultrasound examination by an expertise can aid in the diagnosis. Various modalities of treatment are available like suction and evacuation, laparoscopic excision and repair of the lesion, exploratory laparotomy and excision of the scar ectopic. An obstetric hysterectomy may have to be performed if the above methods fail to produce the desired result. Nonetheless one should decide the mode of treatment depending on the patient's general condition and the desire to preserve fertility.

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