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Conservative management of Cesarean Scar Ectopic Pregnancy

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ABSTRACT

Caesarean scar pregnancy (CSP) refers to a gestational sac that has implanted in the scar of a previous caesarean delivery due to incomplete healing of the caesarean scar, as may be seen in CSP occurring few months of caesarean delivery. It is the rarest kind of ectopic pregnancy which is usually misdiagnosed leading to life threatening complications, like rupture with haemorrhage and hemodynamic collapse. Therefore, a high index of suspicion is required to diagnose CSP. Here, we present two case reports of CSP presenting at 6 and 7 months after cesarean delivery, respectively. The first one presented to us as a case of incomplete abortion following medical abortion, and the second patient was referred to us as a case of cervical pregnancy. A decrease in the primary caesarean rate and prolongation of the inter-pregnancy interval is essential to avoid CSP.

Keywords: Ectopic Pregnancy, Cesarean Scar, Abortion

Caesarean scar pregnancy is the rarest kind of ectopic pregnancy. The incidence of caesarean scar pregnancy has been estimated to range from 1/1800-1/2500 of all caesarean deliveries performed [1]. Due to its low incidence it is misdiagnosed or diagnosis is delayed leading to life threatening complications. An increase in incidence is being noted due to rising trend of caesarean delivery. Therefore, high suspicion is required to diagnose caesarean scar pregnancy. An early diagnosis decreases morbidity and prevents loss of fertility.

CASE 1

29 years old para 1 Living issue 1 with history of caesarean delivery 6 months back reported to the emergency with complains of heavy vaginal bleeding following medical abortion 1 week back at around 6 weeks amenorrhoea. The patient came with an ultrasound report suggestive of retained products of conception and she had received tab misoprostol.

On examination, her vitals were stable and general physical examination unremarkable. On per abdominal examination, abdomen was soft with no tenderness. On per speculum examination, heavy bleeding with large clots was present, and on per vaginal examination os open, uterus anteverted bulky, products of conception felt through the os adherent to the anterior uterine wall. The patient was admitted and was started on injection tranexamic acid and oral iron.

Her haemoglobin was 10.1 gm%, and rest investigations were normal. Serum β HCG was 3404.60 mIU/ml. An ultrasound was repeated which was suggestive of caesarean scar pregnancy. MRI pelvis was done which suggested a sac like structure implanted in

lower uterine segment suggestive of caesarean scar pregnancy. The patient received injection methotrexate single dose 50 mg/m^2 and β HCG was repeated after 4 days which was 328.10 mIU/ml and showed a significant fall. The patient was discharged in satisfactory condition.

CASE 2

28 years old Gravida 1 Para 1 Living issue 1 with history of caesarean delivery 7 months back with 2 months amenorrhoea came for termination of pregnancy. She was referred from a private hospital at 9 weeks 2 days gestational age as a case of cervical pregnancy, with an ultrasound report with fetal pole of 7 weeks 5 days in the lower uterine segment. On examination, her vitals were stable and general physical examination was unremarkable. On per abdominal examination, abdomen was soft with no tenderness. On per speculum examination cervix and vagina were healthy, and on per vaginal examination, uterus anteverted 8 weeks size, soft, mobile. She was admitted and investigated.

Ultrasound was repeated which was suggestive of scar pregnancy. Her haemoglobin was 13.3 gm% and other investigations did not reveal any abnormality. Serum β HCG was 164,460 mIU/ml. She was given injection methotrexate single dose 50 mg/m^2 and β HCG was repeated after 4 days which was 74,250 mIU/ml and showed a significant fall. The patient was discharged in satisfactory condition. In follow up, patient had her serum β HCG level within normal limits after 3 weeks.

Figure 1: Ultrasound picture showing gestational sac implanted over the caesarean scar.

DISCUSSION

Caesarean scar pregnancy (CSP) refers to a gestational sac that has implanted in the scar of a previous caesarean delivery. The incidence of CSP is estimated to be 1:2226 of all pregnancies with the rate of 0.15% in women with previous caesarean delivery and 6.1% of all ectopic pregnancies in women who have at least one caesarean delivery [2]. There is a rising incidence of CSP due to a rise in the rate of caesarean delivery, increased awareness about its incidence and availability of better diagnostic tools. The prevalence of CSP has been estimated to be 1:1800 [3] CSP occurs due to incomplete healing of the caesarean scar as may be seen in CSP occurring few months of caesarean delivery [4] Multiple caesarean deliveries is also considered as a predisposing factor as it increases the scar surface area [3]. In CSP the gestational sac is completely surrounded by myometrium and fibrous tissue of scar. It invades the myometrium through the microtubular tracts between the caesarean scar and endometrial canal [5]. According to Vial et al [6] one type of CSP progresses towards the cervicoisthmic space or uterine cavity and second type, which is more prone to rupture, grows towards the bladder and abdominal cavity.

Undiagnosed patients may present with rupture with haemorrhage and hemodynamic collapse. However, the patients may present early and in one third cases they are asymptomatic and diagnosed incidentally on routine early antenatal ultrasound. The rest usually complain of painless vaginal bleeding (39%), pain abdomen (9%) or both (16%) [7]. A high index of suspicion is required to diagnose CSP.

Due to widespread availability and accessibility, TVS has been used for diagnosis. To increase the accuracy, colour flow Doppler, pulsed Doppler, and 3D power Doppler ultrasound have been used. TVS and colour flow Doppler is emerging as a gold standard. On TVS the gestational sac is seen the anterior part of the uterine isthmus and inability to displace the gestational sac from its position by gentle pressure by transabdominal probe is considered diagnostic (Negative sliding organ sign [3]. Ultrasound also helps in differentiating cervicoisthmic pregnancy from CSP by the presence of a layer of healthy myometrium between the bladder and the gestational sac [5]. Also, spontaneous miscarriage in the progress of expulsion can be differentiated by colour flow Doppler by lack of vascularity. MRI is considered as an adjunct to ultrasound where the latter is inconclusive [5]. Hysteroscopy and laparoscopy has also been used for diagnosis and may prove therapeutic as well.

Due to increased risk of rupture, haemorrhage, shock, risk of hysterectomy and maternal morbidity and mortality,

termination of pregnancy is recommended. There is no universally agreed preferred modality of treatment. Expectant management is rarely successful and carries a significant risk of rupture. Medical management is by systemically administered methotrexate in the dose of 50 mg/m^2 (single dose regime). Multiple dose methotrexate (1 mg/kg) with folinic acid rescue is also been used. Local injection with methotrexate under ultrasound guidance and a combination of intramuscular and intragestational methotrexate has also been used successfully. Medical management with methotexate is successful in 71-80% cases with 6% risk of hysterectomy [3]. Other drugs used for local injection include potassium chloride, hypreosmolar glucose and crystalline trichosanthin. Medical treatment has also been combined with surgical sac aspiration. β HCG and TVS colour Doppler are used for monitoring and β HCG takes 4-16 weeks to come back to normal range [5].

Surgical management in the form of laparotomy with removal of CSP and repair of scar is indicated in rupture or failed medical and conservative surgical management. In a stable patients, successful laparoscopic treatment and hysteroscopic evacuation of CSP and have been described. CSP has also been managed by uterine artery Embolisation [8]. Uterine curetting is not successful as the gestational sac is not within the uterine cavity and curetting may potentially rupture the scar.

At the time of discharge, patients are advised for early antenatal visit for TVS in the next pregnancy. 50% incidence of uneventful viable intrauterine pregnancy has been reported after all the modality of conservative management with the mean interval of 13.3 months (range 3-34 months) [9]. Recurrences are rare but reported [9].

Thus, probability of scar pregnancy should always be kept in mind due to its increasing incidence because of rising caesarean section rate. Thus, to avoid scar pregnancy and all its complications, all practitioners should make an effort to decrease the primary caesarean rate and also advise contraception to prolong the inter-pregnancy interval.

CONCLUSION

Caesarean scar pregnancy can be a life threatening condition. High index of suspicion, early diagnosis, correct modality of treatment (conservative/operative) are essential to prevent maternal morbidity and mortality.

REFERENCES

1. Timor-Tritsch IE, Monteagudo A, Santos R, Tsymbal T, Pineda G, Arslan A. The diagnosis, treatment, and follow-up of cesarean scar pregnancy. Am J Obstet Gynecol. 2012; 207: 44.e1-13.
2. Seow K-M, Huang L-W, Lin YH, Yan-Sheng Lin M, Tsai Y-L, Hwang J-L Caesarean scar pregnancy: issues in management. Ultrasound Obstet Gynecol 2004; 23: 247–53.
3. Jurkovic D, Hillaby K, Woelfer B, Lawrence A, Salim R, Elson CJ. First trimester diagnosis and management of pregnancies implanted into the lower uterine Caesarean section scar. Ultrasound Obstet Gynecol. 2003; 21: 220–7.
4. Marcus S, Cheng E, Goff B. Extrauterine pregnancy resulting from early uterine rupture. Obstet Gynecol 1999; 94: 804–5.
5. Godin P-A, Bassil S, Donnez J. An ectopic pregnancy developing in a previous caesarean section scar. Fertil Steril. 1997; 67: 398–400.
6. Vial Y, Petignat P, Hohlfeld P. Pregnancy in a Cesarean scar. Ultrasound Obstet Gynecol. 2000; 16: 592–3.
7. Rotas MA, Haberman S, Levgur M. Cesarean scar ectopic pregnancies: etiology, diagnosis and management. Obstet Gynecol. 2006; 107: 1373–7.
8. Chou MM, Hwang JI, Tseng JJ, Huang YF, Ho ESC. Cesarean scar pregnancy: Quantitative assessment of uterine neovascularization with 3- dimensional color power Doppler imaging and successful treatment with uterine artery embolization. Am J Obstet Gynecol. 2004; 190: 866–8
9. Seow K-M, Hwang J-L, Tsai Y-L, Huang L-W, Lin Y-H, Hseih B-C. Subsequent pregnancy outcome after conservative treatment of a previous caesarean scar pregnancy. Acta Obstet Gynecol. 2004; 83: 1167–72.

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