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CAESAREAN SCAR PREGNANCY: DIAGNOSING AND MANAGING AT A HIGH ALTITUDE DISTRICT HOSPITAL OF LEH, UT LADAKH- A CASE REPORT.

Radiology

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ABSTRACT

Scar pregnancy is considered as an ectopic pregnancy which in itself is rare and is seen in increase in number due to rise in number of caesarean pregnancies. Timely diagnosis and intervention is required to prevent the occurrence of haemorrhage, uterine rupture and even maternal mortality. This condition poses a diagnostic challenge for the radiologist and therapeutic intervention for the obstetricians.

KEYWORDS

Caesarean scar pregnancy, diagnosing, management.

Case report:
A 28 years old lady with previous 2 CS (for non progression of labour), G3P2L2A0 had come to the district hospital, SNM hospital, Leh, UT Ladakh (at an altitude of 3524 metres) for her early pregnancy scan with history of slight bleeding per vaginum for a day and no pain or giddiness. There was no history of passage of clots. Transabdominal Ultrasound was done, which showed a low lying G sac in lower uterine cavity (that was confirmed on TVS), anteriorly with mean gestational age of 6 Weeks 2 Days. Embryonic node was seen, corresponding to 6 weeks 1day with no cardiac activity. Overlying myometrium was 6.8mm in thickness. No internal or peripheral vascularity seen. No extension of G sac was seen into the myometrial tissue or beyond. The sac was seen protruding into the cavity. The endometrial cavity was empty and measured 12.4mm in thickness in its upper third. Internal os was closed and cervical canal was also empty. These findings suggested CSP. Possibility of ?expulsing G sac was also considered. But there was no echogenic or hypoechoic fluid around the sac nor were there any blood products within the endometrial cavity for confirming the same. The sac was seen in same position (along lower uterine cavity) for another 3-4 days. Early intervention was not possible as the patient was anaemic (Hb- 8.3gm%). After blood transfusion patient was taken up for further treatment. Though intracardiac KCL and intrasac/systemic methotrexate injection is the mode of choice in early pregnancy, but in our case it was a non viable pregnancy so USG guided suction was performed. Al though the team was also ready for any emergency laprotomy in case the patient bleeds profusely. One has to be aware that dilation and curettage to remove CSP is associated with haemorrhage and potential risk for hysterectomy. Uterine rupture, hemorrhage resulting in hysterectomy, and deaths have been reported in unrecognized and expectantly managed CSP [22]. In our case suction evacuation was done under aseptic precautions. Post evacuation patient condition was stable and was kept on antibiotics, metrogyl, methergin and i.v fluids and a review USG was done for confirmation of retained products. Minimal blood products was seen and later on after 3-4 days the uterine cavity was empty. Patient was monitored continuously for next 1 week and later discharged after stabilization. Beta HCG was also seen drastic ally declini ng thereaf ter and reachi ng till the value of 1mIU/ ml (i.e non pregna nt state).

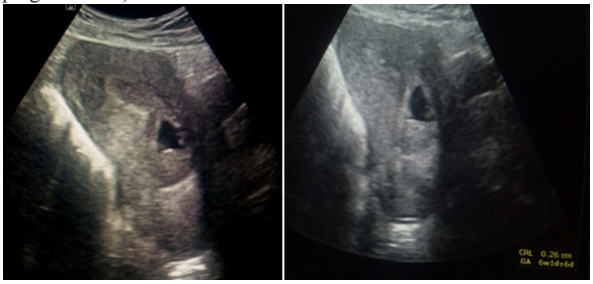

Figure 1 (a) **Figure 1(b)**

Figure 1: A 32 years old lady with caesaren scar pregnancy.

Findings: Ultrasound pelvis shows : 1(a) shows an irregular G sac along lower uterine cavity, anteriorly. Figure 1(b) shows echogenic embryonic node but with no cardiac activity. Upper uterine cavity shows trilaminar endometrial lining with no echogenic blood products. Technique: Ultrasound pelvis. Manufacturer: Philips. Model name: Affiniti 70.

DISCUSSION:
Though a rarest form of ectopic pregnancy [10], caesarian scar pregnancy is indeed a life threatening condition as undiagnosed cases can lead to massive haemorrhage, uterine rupture and ultimately death of the patient. The incidence of scar pregnancy is on increasing trend in today's time due to increase in number of caesarian pregnancies [7,11,12]. The incidence of same is expected be 1/1800-1/2500 [1] in overall caesarian pregnancy and can be diagnosed at 5 to 12 weeks of gestation as mentioned in previous studies [13]. There are many proposed theories for the cause of CSP but the most accepted one is myometrium invasion by the blastocyst through a microscopic tract or dehiscence in previous uterine scar [17] due to prior uterine surgery, manual removal of retained placenta [5], assisted reproduction techniques [6], adenomyosis or previous dilation and curettage [18]. CSP is usually diagnosed in first trimester [1] and the patient presents with vaginal bleeding with or without pain to uterine rupture and hypovolemic shock [17,19,20]. Differential diagnosis includes cervical ectopic pregnancy and placenta accreta [21]. The fate/growth of the growing G sac after implantation can be either into cervico-isthmus, uterine cavity (as was in this case) or extend deep into the myometrial tissue further extending towards the serosal aspect of uterus [13,19]. To determine whether the pregnancy is CSP or cervical in location transvaginal ultrasonography plays a vital role. In latter case there will be no visible myometrial tissue between the G sac and urinary bladder as the sac grows within the isthmus, anteriorly [7].
TVS and color Doppler studies using the following criteria may be useful for confirmation of CSP [2]-

1. No G sac seen within endometrial cavity and cervical canal.
2. Detection of G sac and/or placenta embedded within the scar.
3. Thinned out/absent myometrium between the G sac and the urinary bladder.
4. Presence of vascular tissue in the area of previous caesarean scar.

Other ways of confirming the CSP is by undergoing hysteroscopy, laparoscopy, CEMRI or laprotomy. For preservation of future fertility local or systemic use of injection methotrexate [2] along with KCL [4] is considered. However medical treatment alone can leave the scar unrepaired which might result in complications in next pregnancy [13,14]. Other methods of treatment which are used is bilateral hypogastric artery ligation associated with dilation and evacuation under laproscopic guidance [16], UAE [2, however due to myometrial devascularization chances of increased risk of IUGR and PPH remains in future pregnancy, 23] and surgical procedure (like resection of old scar with new closure of uterine body which also reduces the follow up period [8,9] /uterine wedge dissection, [1,11]). There is a case report of UAE following local methotrexate injection for successful treatment of CSP[3]. However, the best definitive treatment remains surgical removal of scar pregnancy considering the future fertility/pregnancy. So to prevent uterine rupture and haemorrhage, one should plan to deliever at 37 weeks of gestation with multi layered closure to maintain integrity of endometrium [23]. Obstetrician should also counsel the patient regarding the difficulty in conceiving after ectopic pregnancy treatment in about 30% of cases [15] and other complications like recurrence of ectopic pregnancy, uterine rupture and placental attachment abnormalities [1].

CONCLUSION:

Early diagnosis and timely intervention is the mainstay for treatment of CSP and better patient outcome by reducing haemorrhage, uterine rupture and prevent maternal mortality [1,13].

Abbrevations:

CSP (Caesarean scar pregnancy), CS (Caesarean section), G sac (Gestational sac), Hb (Haemoglobin), i.v (intravenous), USG (Ultrasonography), TVS (Transvaginal sonography), KCL (Potassium chloride), UAE (Uterine artery embolization), IUGR (Intrauterine growth restriction), PPH (Post partum haemorrhage).

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