

Caesarean Scar Ectopic Pregnancy: Report of Two Cases

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ABSTRACT

Cases of Caesarean Scar Ectopic Pregnancy (CSEP) are becoming increasingly common at tertiary care hospitals because of increase in rate of CS. This condition is often complicated by life threatening bleeding, uterine rupture, which might require hysterectomy leading to permanent infertility. Management can be medical, surgical or combined depending on the clinical presentation. It includes systemic methotrexate or local uterine artery chemoembolisation, dilatation and curettage, excision of trophoblastic tissue either by laparoscopy or laparotomy with uterine repair. We report two such cases managed medically in our hospital. Both the cases presented to us were asymptomatic except amenorrhoea and were diagnosed by transvaginal sonography. First case was managed with systemic methotrexate followed by Dilatation and Curettage (D&C). Second case was managed with systemic methotrexate alone successfully.

Keywords: Embolisation, Hysterectomy, Laparotomy, Laparoscopy, Methotrexate

CASE 1

A 40-year-old G₂P₁L₁ female with previous LSCS (Lower Segment Caesarian Section) with secondary subfertility conceived following frozen embryo replacement. Trans Vaginal Ultrasonography (TVS) at eight weeks suggested gestational sac measuring 25mm × 15mm with surrounding chorionic tissue, extending into cervical isthmic junction at the scar anteriorly [Table/Fig-1]. Color doppler showed mild vascularity in chorionic tissue with absent cardiac activity suggestive of miscarriage. The diagnosis was revised to a CS scar ectopic pregnancy. The patient was counselled about the diagnosis. A decision was taken for medical management with methotrexate. Her blood tests including complete blood count, renal function test and liver function test were normal. Her β-hCG at admission was 90,926 IU/L. She was treated with two doses of intramuscular methotrexate injection. She was followed up with serial β-hCG and TVS. On follow-up her β-hCG dropped to 24,963 IU/L, 1057.1 IU/L and 7.7 IU/L on 8th, 18th and 42nd day respectively. TVS on 26th follow-up day showed haemorrhagic collection in the lower part of cervical canal for which she underwent Dilatation and Curettage (D&C).



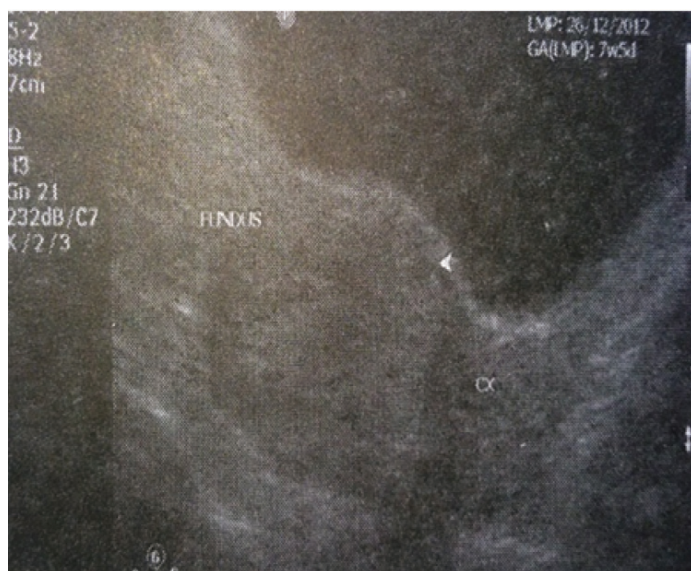
[Table/Fig-1]: TVS showing intrauterine gestational sac and part of chorionic tissue is imaged in the previous LSCS scar region slightly invaginating into the anterior wall.

CASE 2

A 31-year-old female G₅P₁L₁E₁A₂ with spontaneous conception, with diabetes mellitus on insulin presented to our clinic at six weeks of gestation. Her TVS revealed gestational sac of 5mm × 3mm with yolk sac at the lower end of uterine cavity. Her review TVS after one week suggested 6mm × 5mm gestational sac with yolk sac with absent fetal pole. Sac was located at 4mm from the anterior uterine serosa suggestive of scar implantation [Table/Fig-2,3]. She was counselled for medical management after explaining the risk. Her initial β-hCG was 10,340 IU/L and baseline blood tests were within normal limits. She received two doses of intramuscular methotrexate following which some products of conception were expelled. Histopathologically the expelled product was confirmed to be product of conception. Her follow up β-hCG showed decreasing trend i.e., 4,742 IU/L and 632 IU/L on 14th and 30th follow up day respectively. Her follow up ultrasonography showed decreasing size of gestational sac. She had weekly follow up



[Table/Fig-2]: TVS gestational sac of 5x3 mm at the lower end of the endometrial cavity.



[Table/Fig-3]: Trans Abdominal Sonography (TAS) showing sac located anteriorly and 4mm from uterine serosa

with serum β -hCG and after eight weeks the level was 5IU/L with disappearance of the sac.

DISCUSSION

Caesarean scar ectopic pregnancy currently represent less than 1% of all pregnancies; however the rate is definitely increasing due to increasing rate of LSCS [1,2]. This condition if not diagnosed and managed in time might lead to first-trimester haemorrhage, rupture of uterus leading to emergency hysterectomy and thus infertility [3].

In CS pregnancy the gestational sac is completely surrounded by myometrium and fibrous tissue of the CS scar and separated from the endometrial cavity. Implantation occurs due to defects in the scar in the form of microtubular tract as a consequence of poorly healed previous trauma of CS, D & C, hysterotomy, myomectomy, abnormal placentation, assisted reproduction techniques and manual removal of placenta [4]. Expectant management of a visible scar pregnancy puts the mother at risk of emergency hysterectomy if the pregnancy progresses beyond the first trimester. Mainly patients are either asymptomatic or present with painless vaginal bleeding [5,6]. The condition is better diagnosed by TVS and Color Flow Doppler [7]. Management is either medical, or surgical or combined. Medical management includes local (uterine artery chemoembolization) or systemic methotrexate injection and follow-up for 4 months till the hCG level returns to normal [1,8]. Surgery can be either radical or conservative. Radical surgery is indicated for unstable patients with ruptured uterus, uncontrolled bleeding or failed medical and conservative management. Conservative management includes hysteroscopic or laparoscopic evacuation of products of conception, D&C and laparoscopic bilateral uterine artery ligation [9,10].

In a study conducted by Seow et al., out of 12 cases, 11 cases were managed conservatively (two cases - with systematic

methotrexate, two cases-with Dilatation & Currtage and seven cases – USG guided methotrexate therapy) [2]. Ling Yin et al., successfully managed 42 cases of CSP conservatively [11]. Most of the cases managed by uterine artery chemoembolisation followed by curettage. He managed four cases with systemic methotrexate followed by curettage and four cases only by methotrexate. In a retrospective study, Timor-tritsch et al., managed the CSP effectively by local and systemic methotrexate by serial serum β -hCG monitoring [3]. Yu Zhang et al., reviewed 17 cases of CSP and recommended Transvaginal Color Doppler Ultrasonography as the first line tool for early diagnosis [12]. Out of 17 cases, seven cases were managed conservatively by methotrexate followed by curettage. In spite of various conservative methods, uterine artery chemoembolisation followed by curettage is the best method.

Our patients presented asymptotically who were diagnosed early by TVS and managed conservatively. Case 1 was managed with systemic methotrexate followed by D&C as follow-up USG showed haemorrhagic collection in endocervical canal and Case two was managed with systemic methotrexate alone successfully.

CONCLUSION

The diagnosis of caesarean scar pregnancy can be challenging, so awareness of this condition is needed as the incidence is increasing. Early diagnosis and timely intervention is necessary to prevent complications and preserve fertility. Management techniques should be decided based on gestational age of patient, desire to preserve fertility, experience of obstetrician and facilities available. Post treatment surveillance should include serial clinical examinations, β -hCG measurements and repeat ultrasound examination as indicated.

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