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## Case Report

# Transvaginal sonographic diagnosis of caesarean scar ectopic pregnancy: A case report

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### ABSTRACT

We report a case of scar ectopic pregnancy which is the rarest type of all ectopic pregnancies. We need to diagnose & treat this condition in the early weeks of pregnancy to avoid the complication. This case of Caesarean scar ectopic pregnancy (CSEP) was diagnosed during an antenatal ultrasound scan, at six weeks of pregnancy. An ultrasound scan of this case revealed the gestation sac in the lower uterine segment at the previous caesarean scar.

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## 1. Introduction

The first case of a caesarean scar ectopic pregnancy was described in the year 1978 by Larsen JV et al.<sup>1</sup> The reported incidence of CSEP is 1 in 1800 -1: 2216<sup>2</sup> pregnancies. There was a history of one caesarean section in 52% of cases of scar ectopic pregnancy as reported by Rotas MA et al.<sup>2</sup>

The patients present with symptoms of amenorrhoea, pelvic pain, and vaginal bleeding. An early transvaginal ultrasound scan is necessary for a patient with a history of previous caesarean delivery.

## 2. Case Report

29 years old G5P1L1A3 came to antenatal clinic at 6 weeks of amenorrhoea. Her previous menstrual cycle was regular 3/28 days. She is married for 9 years. Her marriage was non-consanguineous. Obstetric history, first induced abortion GA 12 weeks, Dilatation, and curettage were done. Second full-term LSCS, 6-year-old female child alive and healthy. Third and fourth, medical abortions of GA 6 weeks.

Menstrual history: LMP 22/08/2023. Family history and personal history are nil particular. Haemoglobin 13.4 gms. TLC 7260, Platelet count 292x10<sup>3</sup>, Blood group A Rh positive, and random blood sugar 99 mg% was normal. HIV, HBsAg, and VDRL were nonreactive.

An antenatal scan revealed a retroverted bulky uterus. The endometrial thickness was 15.6mm. The uterine cavity was empty. A twin gestation sac was seen on the previous scar site as shown in (Figure 1). The cervical canal was empty and the internal os were closed. Single live embryo was seen (Figure 2), Fetal heart rate 137/minute (Figure 3), CRL 0.21mm= G. Age 5 weeks 5 days. The yolk sac was visualized. The second G sac was empty. The fetal pole and yolk sac were not seen. GSD =0.27mm G A =out of range. No probe tenderness and no blood on the probe. The right ovary shows the corpus luteum (Figure 4). Minimal fluid collection is seen in the cul-de-sac.

The patient was admitted into the hospital and informed written high-risk consent was taken. Under spinal anaesthesia the patient in Lloyd Davi's position, laparoscopic bilateral uterine artery ligation was done. Per operative laparoscopic findings were, the uterus bulky, both fallopian tubes and bilateral ovaries were normal, pouch

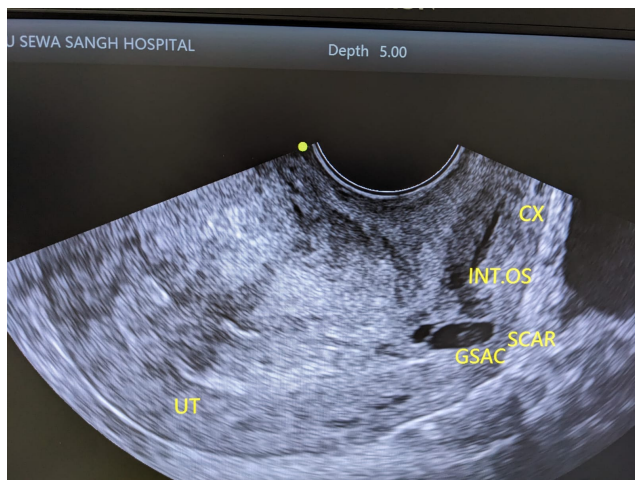
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of Douglas was normal. Bilateral uterine arteries were identified, cut, and coagulated. The port site was closed with 2.0 Vicryl. Haemostasis was achieved. Under all aseptic precaution with the patient in a lithotomy position, suction and evacuation was done. Haemostasis achieved. The procedure was uneventful. The patient was discharged home on 4th postoperative day.



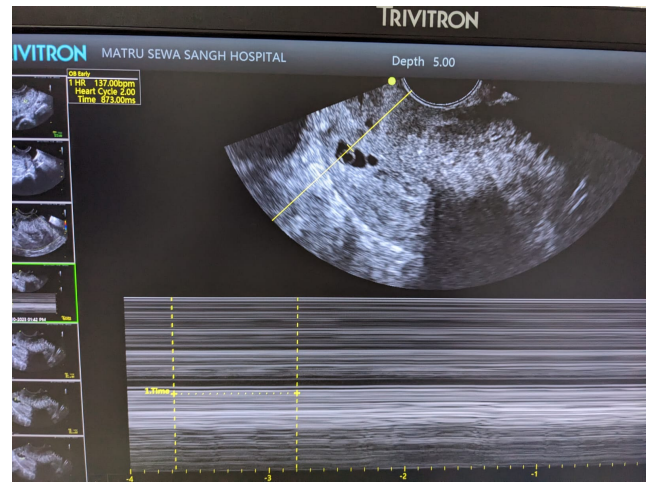
**Figure 1:** Shows scar ectopic with twin gestation sac



**Figure 2:** Shows an empty uterus, cervical canal, and ectopic scar pregnancy

### 3. Discussion

We have diagnosed a case of CSEP in a routine transvaginal ultrasound scan. Our case revealed a twin gestation sac at a previous caesarean scar, an empty endometrial cavity & an empty cervical canal as described by D, Antonio F et al.<sup>3</sup> The patient was asymptomatic. The most common ultrasound finding that is the gestation sac was lying close



**Figure 3:** Shows fetal cardiac activity



**Figure 4:** Right ovary shows corpus luteum

to the caesarean scar.<sup>3</sup> The routine transvaginal ultrasound scan during the early weeks of pregnancy has an important role in the diagnosis of scar ectopic pregnancy.

Anterior cervical pregnancy and inevitable abortion in normally sited intrauterine pregnancy or a cervico isthmic pregnancy are differential diagnoses of caesarean scar ectopic.<sup>4</sup>

Rotas et al<sup>2</sup> reported a sensitivity of 86.4% in the correct early diagnosis of CSEP by ultrasound. Only 37% of CSEP are incidental findings on dating scans as seen in our case. 60% of CSEP can present with bleeding, abdominal pain with impending rupture, and hypovolemic shock with ruptured CSEP.<sup>2</sup>

Yu et al. in 2011<sup>5</sup> reported 100 cases of scar ectopic pregnancies, 55% of patients had vaginal bleeding, 45% of patients were asymptomatic, and only 7% of patients had abdominal pain.

There are two main modalities for the treatment of CSEP. The first successful laparoscopic resection of scar pregnancy was carried out by Lee et al.<sup>6</sup> We treated our case with laparoscopic bilateral uterine ligation followed by suction and evacuation. Wang et al<sup>7</sup> in 2013 had performed laparoscopic bilateral uterine ligation and resection of scar tissue and wound repair in 11 cases of scar ectopic pregnancy. Our diagnosis of the CSEP case was accurate & treated with laparoscopic bilateral uterine artery ligation and suction evacuation.

#### 4. Conclusion

Transvaginal ultrasound scan plays an important role in the early diagnosis of scar ectopic pregnancy.<sup>8</sup> High index of suspicion by clinicians & radiologists in patients of previous caesarean scar is essential when a scan reveals an empty uterine cavity, an empty cervical canal & a gestation sac at the previous caesarean site. Prenatal diagnosis by transvaginal ultrasound in the early weeks of pregnancy is important for this rare, fatal, and complex clinical entity.

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#### 6. Conflict of Interest

None.

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