

# Successful Laparoscopic Management of Caesarean Scar Pregnancy

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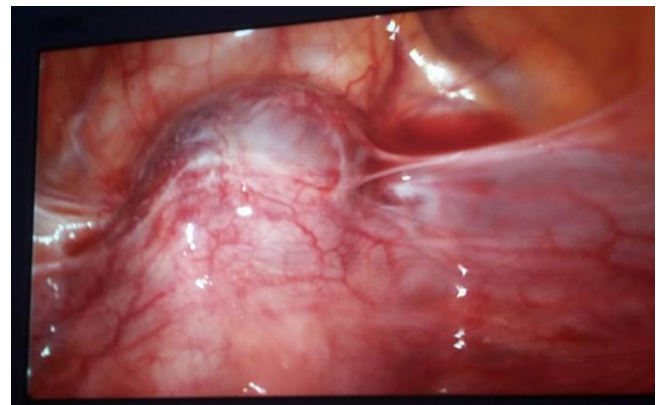
**Abstract:** *Caesarean scar pregnancy is the rarest form of ectopic pregnancies with incidence of 1:1800 to 1:2216 in women with an ectopic pregnancy and in women with at least one previous caesarean section.<sup>[1]</sup> We report a case of Caesarean scar pregnancy in a 27 year old lady with failed medical management who was successfully managed laparoscopically. Conclusion: Timely recognition of the salient sonographic findings is critical as a delay can lead to increased maternal morbidity and mortality and laparoscopic approach is reasonable if appropriate expertise and facilities are available. Caesarean scar pregnancy is the rarest form of ectopic pregnancies with incidence of 1:1800 to 1:2216 in women with an ectopic pregnancy and in women with at least one previous caesarean section.<sup>[1]</sup> It occurs when gestational sac is implanted in the myometrium at the site of a previous caesarean section. Timely recognition of the salient sonographic findings is critical as a delay can lead to increased maternal morbidity and mortality. Different treatment modalities are available but a study conducted by Micheal A. Rotas et al., concluded laparoscopic approach to be reasonable if appropriate expertise and facilities are available.*

## 1. Case Report

We report a case of Caesarean scar pregnancy in a 27 year old lady a Gravida 8 with 2 live children delivered through Caesarean sections. She had 3 first trimester terminations ; dilatation and curettage was done ,the other 2 were spontaneous abortions for which again ; dilatation and curettage was done .At 7 weeks gestation with complaints of continuous bleeding she visited a local doctor where she was diagnosed to have scar ectopic gestation with a serum B-HCG of >1000miu/ml.

Her B-HCG was 2750 miu/ml after 5 days . Decision to adopt conservative medical management taken. She was given four doses of systemic Inj .Methotrexate every alternate day along with Folinic acid . Repeat B –HCG was 897 miu/ml .She was referred to Apollo hospitals for further higher management. TVS after 2 weeks revealed a resolving gestational sac of 1.6 x1.2 cm with vascularity and a B – HCG of 422 miu /ml. Another dose of Inj .Methotrexate given. Another TVS after a week reported a yolk sac of 2.8x2.1 cm in the LSCS scar; organised bleed of 2.5 x2.1 cm around the sac with good vascularity and a B-HCG of 440 miu/ml. Decision to proceed with laparoscopy taken.

Intraoperatively a gestational sac of size 2.5x2.8 cm seen at the lower segment .UV fold of peritoneum opened and bladder pushed down .A horizontal incision of 2 cm taken above the primary surgical site by Harmonic scalpel and uterus opened. Gestational sac removed intoto and sent for HPE. Haemostasis secured and uterus closed with 1-0 V-LOC suture.



She was discharged the next day. Her repeat B HCG was 246 miu/ml and it was negligible in 3 weeks. She has been advised contraception/ sterilisation, she preferred contraception for 1 year.



## 2. Discussion

Even though it's a rare condition, the incidence of caesarean scar pregnancy is rising due to the increased number of caesarean deliveries and good imaging techniques. The selection of treatment modality is based on severity of symptoms, medical condition of the patient, desire to preserve fertility, gestational age and surgical experience.

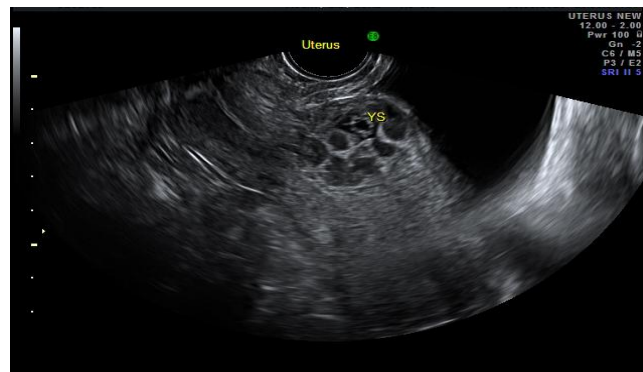
Treatments include expectant management, medical and surgical management.

#### Diagnosis: Clinical features

- 1) More commonly in first trimester.
- 2) Vaginal bleeding
- 3) Abdominal pain
- 4) Pallor/fatigue

#### Sonography:

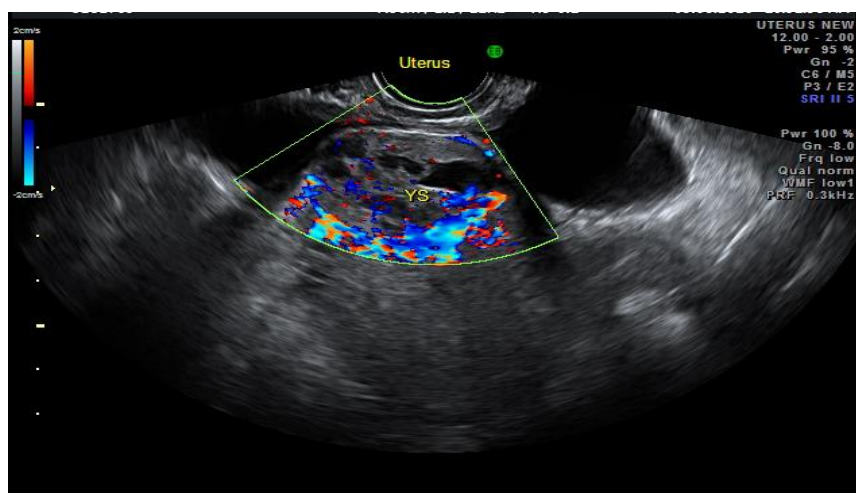
Early transvaginal sonography is the reference standard for diagnosis. A sagittal view along the long axis of the uterus would be helpful.



Following sonographic criteria have been put forwarded.

- 1) Empty uterus with clearly visualised endometrium
- 2) Empty cervical canal
- 3) Gestational sac within the anterior portion of the lower uterine segment at presumed site of caesarean scar.
- 4) Thinned or absent myometrium between the gestational sac and bladder <5mm in 2/3 of cases <sup>[2]</sup>

Doppler flow around the sac with low-impedance, high velocity flow.



Magnetic Resonance Imaging: It is useful when sonography is equivocal or inconclusive before intervention or therapy.

#### Differential Diagnosis:

- Cervical pregnancy – Normal thickness of overlying anterior myometrium
- Failed pregnancy - lack of color flow on Doppler “Sliding organ” sign

#### Complications

- 1) Placenta praevia/Accreta
- 2) Uterine rupture
- 3) Massive haemorrhage <sup>[3,4,5]</sup>

#### Management

The treatment policy is to be personalised to the patient with consideration of the pregnancy viability, gestational age and future family planning. The hysterectomy rate is 71% in these cases due to increased risk of placenta praevia/accreta and massive haemorrhage. <sup>[2,6]</sup> Therefore termination in first trimester is generally recommended in literature: when there is progression towards abdominal cavity/ bladder ;due to

increased risk of life threatening complications and loss of fertility. <sup>[2,6,7]</sup>

No universal treatment guidelines have been established. Many medical and surgical approaches have been attempted. Systemic Methotrexate therapy, local injections UAE alone /UAE with local methotrexate; surgical aspiration of gestational sac; hysteroscopic/laparoscopic and open removal. Local, systemic and combined treatments are appropriate in women who are haemodynamically stable with an unruptured caesarean scar pregnancy of less than 8 weeks gestation with myometrial thickness of < 2mm between gestational sac and bladder, <sup>[2,4]</sup> when B-HCG is less than 5000 miu/ml. Multiple doses are required due to short half life of methotrexate. Local administration of MTX; Potassium chloride and hypertonic glucose have all been used successfully <sup>[2,4,8,9]</sup>. A transvaginal sonographic approach is generally favoured due to better visualisation of needle; shorter distance to reach sac; decreased risk of bladder injury. Surgical management with laparoscopy/laparotomy with excision of pregnancy may be

best for women who don't respond to conservative medical management or are late to present.<sup>[10]</sup>

#### **Follow-up:**

It has been seen that it takes 9 weeks to obtain clearance of B HCG and 3 months for clearance of gestational sac on TVS.<sup>[2,4]</sup> Some authors recommend avoidance of pregnancy for 12 to 24 months.

### **3. Conclusion**

Caeserean scar pregnancies could probably be reduced by meticulous closure techniques of uterus. Early TVS is recommended in women after caesarean scar pregnancies and after caesarean deliveries to confirm an intrauterine location of the new gestation. Sonography combined with Doppler flow imaging is a very reliable tool for detecting. Laparoscopic excision and repair provide great satisfaction in the management of Caeserean scar pregnancies.

### **References**

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