



## Recurrent Cesarean scar pregnancy: Conservative management by Mifepristone and single dose Methotrexate

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### ABSTRACT

Cesarean scar pregnancy is defined as implantation into myometrial defect occurring at the site of the previous uterine incision.<sup>1</sup> We report a case of recurrent cesarean scar pregnancy in a case of previous 2 cesarean deliveries managed conservatively by single dose of Methotrexate and Mifepristone.  
Conclusion: Multiple dosing sequence of injection Methotrexate can be avoided. More trials are needed to determine efficacy and safety of this combination.

### KEYWORDS

Ectopic, Methotrexate, Mifepristone

### Introduction

Cesarean scar pregnancy is defined as implantation into myometrial defect occurring at the site of the previous uterine incision.<sup>1</sup>

With the rate of cesarean deliveries increasing, there has been a rise in the incidence of cesarean scar pregnancies. Although cesarean scar pregnancies were rare occurrence, their incidence now reported as 1:1800 to 1:2226 of total pregnancies has increased because of two reasons. First being rise in cesarean deliveries and second being use of transvaginal ultrasound in early pregnancies.<sup>2,3,4</sup>

Currently many modalities exist on its management but no general consensus exists in management of cesarean scar pregnancy.

Here we report a case of recurrent cesarean scar pregnancy in a case of previous 2 cesarean deliveries managed conservatively.

### Case Report

A 39 year old, G7P2L2A3E1, woman with a positive urine pregnancy test underwent a routine transvaginal ultrasound at 5 weeks 4 days amenorrhea in which the gestational sac was oval and situated along the lower uterine segment adjacent to the previous scar. Her general physical examination was unremarkable. Her past history revealed that she had a similar scar gestation 2 yrs back which was managed by intra sac KCL injection under Ultrasound guidance. The obstetric history revealed that her previous 2 live births were cesarean deliveries 15 and 10 years back respectively with no known complications noticed after the operation. Patient also had 4 abortions of which 2 were medical abortions and two were suction evacuations at 1 ½ and 2 months amenorrhea respectively. Her last abortion was 6 yrs back. Patient was not using any oral contraception. The patient was clinically stable and signs and symptoms positively correlating with ectopic gestation were absent. She received oral instruction to have a new ultrasound after 2 weeks and a serum beta hCG was ordered.

After one week patient presented to ANC OPD with complaints of spotting per vaginum. Urgent scan was ordered that showed cesarean scar pregnancy with cardiac activity with ovaries

appearing normal and no free fluid in pouch of douglous, with serum beta HCG of 8975.12 mIU/ml. Patient and relatives counselled about all treatment modalities with their risks and benefits, and the patient opted for termination of pregnancy via medical route that is single shot of injection methotrexate and 600 mg of tab mifepristone. After taking written informed consents and biochemical testing. Inj Methotrexate at dose of 1mg/kg was given and tab mifepristone was given on day 7. Repeat Beta HCG done on day seven was 26856.03 mIU/ml which was higher than previous level. Her general condition was stable and patient did not show any signs and symptoms of rupture of ectopic. Patient did complain of bleeding per vaginum intermittently on and off. Repeat transvaginal Ultrasound was done which suggested a decreased size of sac and absent cardiac activity. Decision for expectant management taken after counselling and briefing patient and relatives about the situation. Day 17 serum beta HCG titres were 3893.4 mIU/ml following which weekly declining titres were noticed. Resolution of gestational sac was noticed on serial ultrasounds. At 17 weeks no visible gestational signs were noticed. Patient resumed her menses after 8 weeks post treatment and was told to follow up with the Beta HCG by doing a urine pregnancy test which was economical and easy to interpret by both patient and relatives. Patient was started on oral contraceptive pills after ruling out contraindications after she had her third regular menstrual cycle and negative beta HCG.

**Table 1: Series of event and clinical data of patient**

Gestational Age	Presenting symptoms	Beta HCG m IU/ml	Transvaginal Ultrasound	Medical Management
5 <sup>++</sup> wks (dates)	Amenorrhoea	Positive urine pregnancy test	Gestational sac 5 <sup>++</sup> wks no cardiac activity, lower segment adjacent to scar	Follow up after 10 days for repeat scan
6 <sup>+</sup> wks (dates)	Spotting P/V	8975.12	Single Live Intra Uterine Gestation 5 <sup>+</sup> wks, Cardiac activity +, features suggestive of scar pregnancy	Inj Methotrexate 1mg/kg I/M given

7 <sup>+4</sup> wks (dates)	Bleeding P/V	26856.03	Single intrauterine gestation 5 wks 1 days with no cardiac activity and features of scar pregnancy	Tab Mifepristone 600 mg given
8 wks (dates)	Spotting P/V Uneasiness in lower abdomen	21317.4	Not done	Conservative
9 wks (dates)	No complaints	3893.40	Non viable embryo sac size decreasing	Conservative
10 <sup>+1</sup> wks (dates)	No complaints	226.5	Small cystic structure of about 0.5 cms seen at scar site	Conservative
10 <sup>+4</sup> wks (dates)	No complaints	48.6	Not done	Conservative
17 <sup>+4</sup> wks (dates)	No complaints Had her first menstrual period post treatment at 14 <sup>+4</sup> wks Which was regular average flow	Urine pregnancy test negative	Cystic structure of 0.2 cm	Conservative
18 <sup>+4</sup> wks (dates)	Day 2 of her second menstrual cycle post treatment	Urine pregnancy test negative	Unremarkable	Conservative
22 <sup>+4</sup> wks (dates)	Day 3 of her third menstrual cycle post treatment	Urine pregnancy test negative	Unremarkable	Oral contraceptive pills advised

**Discussion:**

Single dose Systemic Methotrexate therapy has been a standard regime for managing uncomplicated tubal ectopic pregnancies after ruling out contraindications to methotrexate and certain parameters on Ultrasound.<sup>1</sup>

The diagnostic criteria of diagnosing cesarean scar pregnancies on transvaginal ultrasound includes:<sup>4,5,6</sup>

1. Empty uterine cavity
2. Gestational sac or solid mass of trophoblast located anteriorly at the level of internal os embedded at the site of the previous lower uterine segment cesarean section scar
3. Thin or absent layer of myometrium between the gestational sac and the bladder.
4. Evidence of prominent trophoblastic / placental circulation on Doppler examination.
5. Empty endocervical canal.

The use of Mifepristone has been used in the past with one case report using multiple regime of methotrexate with tab mifepristone.<sup>7</sup>

Various treatment modalities are available for managing cesarean scar ectopic pregnancies. Current literature supports a surgical rather than medical approach as most effective. Insufficient evidence present to recommend which intervention is better than the other.

Maternal morbidity and mortality is high if a woman chooses to continue pregnancy with repercussions of hysterectomy and

morbidity adherent placenta.<sup>8,9,10,11</sup>

In our case no invasive assistance or complication occurred post medical management.

Very few randomised studies done on treatment modalities of cesarean scar pregnancy which is obvious due to rarity of the condition and most of the evidence comes from series of case reports and systemic reviews.<sup>4,6,12,13,14,15,16</sup>

Our patient presented at 5 weeks 4 days gestation with a positive urine pregnancy test and a ultrasound scan suggestive of scar pregnancy. Her initial Serum beta HCG was 8975.12 m IU/ml. Previous successful outcomes of conservative management of tubal ectopic pregnancies with systemic methotrexate at dose of 1mg/kg and same being used in cesarean scar ectopic,<sup>7,12</sup> We had used similar dose and gave 75 mg I/M in our case, single dose on day 1 and tab mifepristone 600 mg on day 7 with all emergency services kept ready. To the best of our knowledge this is the first time we had used a single dose of methotrexate with tab mifepristone with successful outcome. Many studies have been conducted using multiple doses of methotrexate with mean total dose cycle of 5.3 and 6 days with cardiac activity and without cardiac activity respectively.<sup>17</sup>

In conclusion, studies are required to evaluate standard regimes and dosages for inj methotrexate and tab mifepristone. Also conservative management by medical route offers uterine conservation and fertility preservation.

Use of Tab mifepristone averted multiple dosing sequence of inj methotrexate and hence its side effects. However trials are needed to determine safety and efficacy of this combination together.

More reporting of cases should be there to enhance general consensus and making guidelines on management of cesarean scar pregnancy.

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