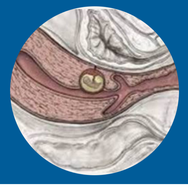

CONSERVATIVE MANAGEMENT OF CAESAREAN SCAR ECTOPIC PREGNANCY: TWO CASE SCENARIOS

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INTRODUCTION

Caesarean scar ectopic pregnancy (CSP) is a rare yet significant complication that involves the implantation of an embryo within the defective myometrial tissue of a prior uterine incision. The incidence of this condition is increasing, correlating with the rising number of caesarean sections performed and advancements in diagnostic imaging techniques. Caesarean scar ectopic pregnancies are estimated to occur in approximately 1 in 2,000 pregnancies. Although the precise pathophysiology of CSP remains inadequately understood, one proposed mechanism suggests that trauma from a caesarean section creates microscopic tracts, facilitating the abnormal invasion of an implanting blastocyst into the affected myometrium. If misdiagnosed or inadequately managed, caesarean scar ectopic pregnancies can result in severe complications, including significant hemorrhage, uterine rupture, and the necessity for emergency hysterectomy. The primary diagnostic tools for CSP include transvaginal ultrasound (TVS) and transabdominal ultrasound (TAS), while magnetic resonance imaging (MRI) may be utilized in cases with uncertain diagnoses.

MANAGEMENT: TREATMENT OPTIONS

Expectant Management: Suitable for stable, non-viable pregnancies.

Medical Management: Administration of methotrexate, either into intragestational sac or systemically, or a combination of both.

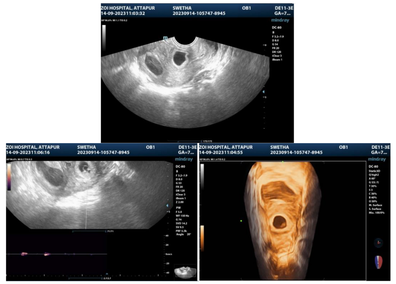
Surgical Intervention: Laparoscopic or open surgery for evacuation and scar repair

Uterine Artery Embolization: Considered in certain clinical situations.

Combined Approaches: Utilization of multiple management strategies.

CASE REPORT 1: A UNIQUE HETEROTOPIC PREGNANCY

A patient with a history of G2P1L1, following a prior caesarean section, presented with a scan report indicating a heterotopic pregnancy. This scenario included a non-viable intrauterine pregnancy alongside a single live caesarean scar ectopic pregnancy at six weeks of gestation, demonstrating stable fetal heart activity, a finding that was subsequently reconfirmed in our facility. After comprehensive counseling regarding potential complications and available treatment options, the patient elected to pursue medical management. The initial serum beta-hCG value was recorded at 11000 mIU/ml. Subsequently, a transvaginal ultrasound (TVS)-guided injection of potassium chloride (KCl) was administered into the gestational sac, and the patient was meticulously monitored until fetal cardiac activity ceased. After 48 hours, serum beta-hCG levels exhibited an increase to 13225 mIU/ml. Following this, two doses of intramuscular methotrexate (50 mg/m²) were administered alternately with leucovorin rescue. A declining trend in serum beta-hCG was noted on day six, with a value of 12703 mIU/ml. The patient aborted the intrauterine pregnancy on day 38, with the echogenicity of the scar ectopic decreasing to 50 percent with absent vascularity; serum beta-hCG subsequently fell to 2,200 mIU/ml. The patient was closely monitored through regular ultrasound and hormone assessments until serum beta-hCG levels returned to negative, a process completed by day 50 post-treatment. Complete resolution was subsequently confirmed via ultrasound three months later. Notably, the patient conceived again six months following the resolution of the caesarean scar ectopic pregnancy, presenting with a single intrauterine fetus, confirmed to have a normal anomaly scan. The patient successfully delivered a healthy infant at 38 weeks of gestation via repeat caesarean section due to gestational hypertension.



S.No	Day	Serum beta hcg value
1	1	13225 mi.u/ml
2	6	12703 mi.u/ml
3	38	2200 mi.u/ml
4	45	89 mi.u/ml
5	50	<5 mi.u/ml

CASE REPORT 2: MEDICAL MANAGEMENT OF A CAESAREAN SCAR ECTOPIC PREGNANCY

The second patient, similarly with a history of G2P1L1 and one previous caesarean section, presented with continuous spotting over 15 days. A transvaginal ultrasound revealed a 6-week caesarean scar ectopic pregnancy with absent fetal cardiac activity. Following extensive counseling, the patient opted for a medical treatment regimen that involved three doses of intramuscular methotrexate (50 mg/m²) administered on alternate days, accompanied by leucovorin rescue, under diligent follow-up monitoring. On day one, serum beta-hCG levels were recorded at 22559 mIU/ml. By day five, an increase in serum beta-hCG levels was observed, followed by a declining trend commencing on day 15. Throughout the management process, the patient was consistently monitored via ultrasound and hormone assessments, maintaining stability. Serum beta-hCG levels became negative by day 55, with complete resolution confirmed on ultrasound following three months.

S.No	Day	Serum beta hcg value
1	1	22559mi.u/ml
2	5	35068 mi.u/ml
3	15	14546mi.u/ml
4	25	5000 mi.u/ml
5	40	380 mi.u/ml
6	55	<0.mi.u/ml

Key Words: CSP - Caesarean Scar Pregnancy

CONCLUSION:

The early diagnosis of caesarean scar ectopic pregnancy is of paramount importance and necessitates a high index of suspicion. Through meticulous counseling, patient education, and diligent ultrasound and hormone monitoring, this condition can be effectively managed using medical treatment, thereby mitigating the risks associated with surgical interventions. The presented case scenarios underscore the significance of individualized care and follow-up in the management of caesarean scar ectopic pregnancies demonstrating the potential for favorable outcomes.

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