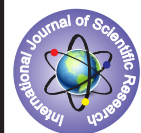


CONSERVATIVE MANAGEMENT OF SCAR ECTOPIC AND ITS SUCCESSFUL OUTCOME – A RARE OCCURRENCE



Gynaecology

KEYWORDS:

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ABSTRACT

Caesarean scar ectopic pregnancy is a rare type of abnormal implantation often considered the rarest type of ectopic pregnancy.

- It has an estimated incidence of 1:1800-2000 pregnancy.
- The overall incidence is however thought to be increasing, representing upto 6% of ectopic pregnancies with a history of caesarian section.

INTRODUCTION

- Caesarean scar ectopic is the rarest ectopic pregnancy.
- Gestational sac is implanted in the myometrium at previous C-section scar.
- Estimated incidence of 1: 1800-2000 ectopic pregnancies.
- Caesarean scar pregnancy rate accounts for 6% of ectopic pregnancies among women with a prior caesarean delivery

CASE REPORT

- 35yrs old , gravida 3 para 2 living 2, with previous 2 Lscs , was admitted in the hospital with 2 months amenorrhea with spotting pervagina.
- L.M.P – 12/1/2016 G.A - 6 Weeks 2 day O/H
- G3P2L2
- P-1 Female/3kg/lscs i/v/o C.P.D
- P-2 male/2.75 kg/lscs i/v/o C.P.D

O/E

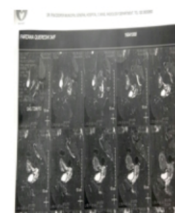
G. C.	Fair
TEMP	Afebrile
P	82/min
BP	100/70 mm hg
Remarks	No Pallor, icterus, oedema
P.A.	Soft
	No G/T/R
	Pfannsteil scar of prev Iscs (+)
P.S.	Cervix Healthy
	Vagina Healthy
	Minimal Spotting Seen
P.V.	Uterus A. V. just bulky soft
	Restricted mobility
	No cervical motion tenderness
	Bilateral furnaces free

HB	13.1
B-hcg	4906.99 miU/ml
all other blood investigation	wnl
Chest xray	wnl
ECG	wnl

Transvaginal ultrasound revealed a 8mm gestational sac with **no fetal cardiac activity in the lower anterior wall of the terus**. Only 13 mm of yometrium was visualized in the anterior wall of the cervix. There was no fluid in the cul-de-sac.



Magnetic Resonance Imaging on day 3 revealed 15×19×15 mm sac in the anterior wall of the lower uterine segment.



- The patient was counselled regarding her management options.
- Both medical and surgical options of management were given. Risks and consequences of both were explained.
- Patient opted for medical treatment.
- Patient was explained the need for SOS surgical management during the course of medical treatment.
- She received a first dose of Methotrexate (75 mg; 1 mg/Kg of body weight) intramuscularly
- Day 3 Bhcg levels had fallen down to 3820.26miU/ml
- On day 5 injection methotrexate was repeated 1mg/kg
- Injection leucovorine was given on alternate days- 0.1mg/kg to prevent side effects of injection methotrexate
- Day 7 levels of Bhcg were 799.06 miU/ml

Sr. B-hcg	Day	Hb	inj. MethotrexateD
4906.99	1	13.1	Given
	2		Leucovorin
3820.26	3.		Given
	4.	12	Leucovorin
2715.64	5.		Given
	6.		Leucovorin
799.06	7.	11.4	Given

FOLLOWUP

- B Hcg levels were then repeated after a week which was 40 miU/ml (day 14)

- Endovaginal colour Doppler showed devascularisation of the gestational sac.
- Patient was discharged.
- Patient explained regarding the need for continued monitoring and contraception and need for regular follow up.
- Repeat B-hcg of the patient after one week of discharge was <5miu/ml. (day 21)
- Patient started having normal menstruation (day 28)
- We continue to follow up this patient.

INCIDENCE

- The increasing rate of caesarean sections in the two last decades has brought into light a set of complications that were not so frequent in the past, including Caesarean scar pregnancy
- The mechanism for implantation in this location is believed to be migration of the embryo through either the wedge defect in the lower uterine segment or a microscopic fistula within the scar
- It may also result from a defect in the endometrium caused by trauma created by procedures in assisted reproduction techniques.
- The natural history of this condition remains unclear-

1. it may result in a pregnancy that loses its vascular connections while growing, thus causing a spontaneous abortion

2. it may continue to grow gaining new stronger vascular connections ending into a low-lying adherent placenta with or without invasion of surrounding organs.

RISK FACTORS

- Adenomyosis
- Previous abnormal placentation
- In vitro fertilization
- Previous dilation and curettage
- Manual removal of placenta
- Multiple caesarean section.
- Uterine surgeries - myomectomy, metroplasty, hysteroscopy.
- The clinical presentation varies from vaginal bleeding with or without pain to uterine rupture and hypovolemic shock
- Most of the cases that have been reported were diagnosed early in the first trimester
- Gestational age at diagnosis ranges from 5 to 12 weeks
- Differential diagnosis includes-

1. cervical ectopic pregnancy
2. placenta accrete

DIAGNOSIS

- The diagnosis is made by TVS and colour Doppler
- The sonographer criteria for diagnosis are –

1. empty uterus and empty cervical canal;
2. development of the sac in the anterior wall of the isthmic portion;
3. a discontinuity on the anterior wall of the uterus demonstrated on a sagittal plane of the uterus running through the amniotic sac;
4. absent or diminished healthy myometrium between the bladder and the sac
5. high velocity with low impedance peri-trophoblastic vascular flow clearly surrounding the sac is proposed in Doppler examination

MANAGEMENT

MANAGEMENT

Medical		Surgical
Local	Conservative	Radical
Inj Methotrexate	D&C	Hysterectomy
Inj KCL	Laprotomy	
Inj Hypertonic Saline	Laparoscopy	
	Uterine Embolisation	

Systemic
Inj Methotrexate

TREATMENT OPTIONS

- Treatment modalities are either medical or surgical and are sometimes combined
- The surgical approach includes radical and conservative procedures
- The radical procedure consists in hysterectomy when the uterus is ruptured or if bleeding is uncontrollable

CONSERVATIVE MANAGEMENT

- The conservative surgical procedure includes-

1. evacuation of the pregnancy and repair of the uterine defect by laparotomy or laparoscopy

2. dilatation and curettage and excision of trophoblastic tissues using laparotomy or laparoscopy

3. bilateral hypo gastric artery ligation associated with D and C under laparoscopic guidance.

MEDICAL MANAGEMENT

- The medical treatment consists of MTX administration locally or systemically.
- This should only be considered in highly selective cases when patient is hemodynamically stable, and there is desire for fertility preservation.
- Clinical condition of the patient, serial USG and hCG are useful markers in this regard.

Decisions on treatment options should be dictated by –

- gestational age
- hCG levels
- the presence of fetal cardiac activity
- the desire of future fertility
- the experience and facilities available.

ADVANTAGES	DISADVANTAGES
• Preserves fertility	• Low decline in b-hCG level
• Avoid surgical and anesthesia risks	• Possible massive bleeding
	• Uterine rupture
	• Risk for future recurrent implantation.
	• Treatment failure
	• Long term follow up
	• Need of additional intervention
	• Need of later hysterectomy

COMPLICATIONS

- Complications of caesarean scar pregnancy are:
- 1. uterine rupture
- 2. severe bleeding

3. need for hysterectomy
4. maternal morbidity and mortality

METHOTREXATE

- Methotrexate - a folate antagonist,
- Acts primarily against rapidly dividing cells, and therefore is effective against dividing trophoblast.
- The success of Methotrexate depends on serum hCG level, size of ectopic pregnancy and cardiac activity.
- High success rate is found if serum hCG level is less than 3000 IU/L.
- Patient's with serum hCG levels more than 3000 IU/L can have good outcome, but require long follow up, repeat doses of Methotrexate and higher medical cost.
- The presence of fetal cardiac activity on USG has poor success with medical management.

UTERINE ARTERY EMBOLIZATION

Uterine artery embolization-

- Selective arterial embolization using pledgets of absorbable gelatin sponge – uterine devascularization.
- Can be used only when the patient is haemodynamically stable.

A hysteroscopy should be performed a few months after treatment to evaluate the Caesarean section scar.

Complications

- Fever
- Contrast media renal toxicity
- Leg ischemia

SUMMARY

- Intramural pregnancy with implantation in a previous caesarean section scar is probably the rarest location for ectopic pregnancy.
- Complications–
 - 1) uterine rupture
 - 2) life-threatening haemorrhage.
- Modalities for diagnosis –
 - 1) U.S.G
 - 2) Colour doppler
 - 3) MRI.

CONCLUSION

- Caesarean scar pregnancy should be diagnosed as early as possible to avoid complications and decide the type of management.
- Non viable caesarean scar pregnancy can be treated safely by systemic methotrexate injection with regular follow up and monitoring.
- Reducing the primary surgical rate can decrease the incidence of such life threatening complications.

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