Original Research Paper

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ABNORMAL LOW-LYING IMPLANTATION OF ECTOPIC PREGNANCY (LLIEP) - A DIAGNOSTIC AND MANAGEMENT DILEMMA

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KEYWORDS :

INTRODUCTION

Abnormal Low-lying Implantation Of Ectopic Pregnancy (lliep) May Occur In Cervix, Cervico-isthmic Region And Caesarean Scar (cs).

Incidence Of Cs Ectopic Is 1: 1800 To 1: 2000.

Delayed Diagnosis And Mis-diagnosis May Lead To Catastrophic Events.

Therefore, High Index Of Suspicion For Prompt And Accurate Diagnosis Of Caesarean Scar Ectopic Is The

A 28-year-old, Misses X, W/o Y, Hailing From Saharanpur, Homemaker By Occupation, Hindu By Religion, Unbooked, G3p2l2, Presented To Emergency Obstetrical Unit Of Tertiary Care Hospital With H/o Amenorrhea Of 2 Months C/o Spotting Per Vaginum Since One Day After Mtp Pill Intake (over The Counter)

Prev Menstural History:-3-4days/28-30 Days / Average Flow / Regular / With No Passage Of Clots And Dysmenorrhea.

Present Menstural History
Lmp-1/11/2022
Pog-9 Weeks + 5 Days
Edd-8/8/2023
Obstetric History – Married Life Is 7 Years
G3p3l2

1st Pregnancy – 6 Years Old Female, By Lscs Due To Fetal Distress With Labour Dystocia At Mmu, Mullana, Ambala , A And H

Examination
Patient Was Average Built With Bmi 21 Kg/m2 .
Vitals : Stable
80 Bpm Pulse Rate
100/60 Mmhg Blood Pressure
Afebrile On Touch, (98.6 F)
Spo2 – 100 % On Room Air
Chest-b/l Ae +, Clear
Cvs- S1, S2 +, No Murmurs.
On Per Abdomen Examination:- Soft And Non-tender .
On Per Vaginum Examination:- Os Was Closed, Cervix Is Directed Posterior, Uneffaced, Long Tubular98.6 F

Blood Investigations

AB positive
CBC:
Hb – 11.1
TLC – 4.33 X 1000/cumm
Platelet count – 202 x 1000/cumm
P/L/E/M – 46/45/03/06
PCV – 36.5
Beta hcg-Multi-dose regimen methotrexate given. There was significant fall in β-hCG levels to 5000 IU. However volume of Gestational sac of Scar ectopic did not decrease after medical management.
LFT, RFT, RBS, Coagulation profile, thyroid profile, urine routine & microscopy- within normal limit

ULTRASOUND

- Gestational sac with CRL of 11.91 mm corresponding to GA of 7w 3d + 1 wk.
- There is E/O Gestational sac showing fetal pole and yolk sac in the lower uterine segment eccentrically along the anterior aspect.
- No cardiac activity is seen within it.
- Significant thick echogenic rim is seen around it and is extending into the anterior myometrium .
- Thin layer of normal myometrium is seen over the gestational sac

Medical and surgical methods of management options are explained and offered to patient and attenders.

- She insisted for medical management.
- Multi-dose regimen methotrexate given. There was significant fall in β-hCG levels to 5000 IU. Though volume of Gestational sac of Scar ectopic did not decrease after medical management
- Patient came to emergency with torrential bleeding on day-9 in hypovolemic shock state.
- Simultaneous resuscitation and preparation for emergency laparotomy was done.
- Patient was shifted to OT with informed and written consent

Bedside Ultrasound

- Ultrasonography reconfirmed intrauterine death at 7 weeks gestation, There is E/O Gestational sac showing fetal pole and yolk sac in the lower uterine segment eccentrically along the anterior aspect.
- There was a typical hour glass appearance of uterus
- Smaller fundus of nulliparous size sitting on top of ruptured LLIEP in lower uterine segment
- Scar dehiscence of 5 cm was seen on right side on top of over distended lower uterine segment
- Tortious vessels were seen approximately 7 cm x 5cm full of blood protruding through sac from ruptured scar
- A lifesaving peripartum hysterectomy done.
- Massive blood and blood product transfusions was needed, 4 units Packed Red Blood Cells (PRBC) and 4 units Fresh Frozen Plasma (FFP) was transfused.
- Patient was shifted to Intensive Care Unit (ICU) for 24 hours.
- Higher antibiotics, Piperacillin and tazobactum 4.5 gm intravenous and Metronidazole 500 mg intravenous eight hourly for 48 hours was given.
- Patient was discharged on postoperative day 4 under stable condition

Histopathology

Hysterectomy specimen 10.5 x 4.5 x 4 cm.

- Grossly, the posterior part of the lower uterine segment is dilated and shows congestion.
- Cervix appears to be normal. On serial sectioning, through the uterus, a cystic cavity filled with blood clots measuring 5.5 x 4.5 x 2cm is seen in the lower uterine segment.

- No adnexa included

Microscopic Appearance
No evidence of dysplasia or malignancy

Endometrium: Secretory phase
-Fibrino – haemorrhage material, chorionic villi lined by syncytiotrophoblast and sheets of decidual tissue at the lower uterine segmen

DISCUSSION

Caesarean scar pregnancy is another rare form of LLIEP. Among women with a prior caesarean delivery, implantation within a prior caesarean hysterotomy scar develops in approximately 1 in 2000 pregnancies.

Similar to patients with ectopic pregnancy in other locations, affected women may have vaginal bleeding or abdominal pain, but up to 33 percent are asymptomatic.

Yes risk of uncontrollable bleeding with less capability of muscular contraction and require time-consuming resolution of the lesion with a prolonged recovery time.

In first trimester, it is best diagnosed by transvaginal ultrasound and MRI [4].

Uterine ectopic pregnancy is not only a diagnostic dilemma but presents challenges in management in young women

Cesarean scar pregnancies(CSPs) are usually diagnosed in the first trimester , and transvaginal sonography is essential.

Diagnostic criteria include
(1) an empty uterine cavity and empty endocervical canal,
(2) placenta or gestational sac embedded in the hysterotomy scar niche,
(3) a thin myometrial mantle between the gestational sac and bladder,
(4) a prominent vascular pattern at the scar. May mimic a spontaneous expelling abortus or cervicoisthmic implantation,

To help differentiate these, inability to displace or propel the gestational sac from its position using gentle pressure applied by the endovaginal probe suggests implantation

Advancements in ultrasonography have led to the development of several conservative treatment approaches (medical or surgical) that avoid hysterectomy and preserve fertility.

Medical Methods Have Been Developed More Recently
Intra-amniotic injection of potassium chloride or Methotrexate (MTX) and systemic chemotherapy with MTX

Patients may prefer to avoid these risks and seek pregnancy termination . From one literature review , the most successful interventions include :
1) Hysteroscopic directed excision of scar ectopic.
2) Laparoscopic directed excision of scar ectopic
3) Uterine artery embolization (UAE) followed by scar excision .

In some instances hysterectomy is required or may be elected in those not desiring future fertility

CONCLUSION

- LLIEP is a rare condition with CESEAREAN scar ectopic pregnancy showing increasing trends.
- Lleip should always be kept as a differential diagnosis in first trimester hemorrhage with previous caesarean section.
- Diagnosis and treatment pose a great challenge for treating clinician and radiologist. Transvaginal ultrasound, color doppler and MRI remain gold standard for diagnosis.
- Delay in diagnosis may lead to uterine rupture and life-threatening hemorrhage.
- Early diagnosis and management goes long way to prevent maternal morbidity and mortality

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