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Case Report

Gravid uterus herniating through a large infraumbilical incisional hernia in a woman with previous caesarean sections: successful medical termination of pregnancy with multidisciplinary management – a rare case report

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ABSTRACT

Incisional hernia complicating pregnancy is exceedingly rare but potentially life-threatening. Herniation of the gravid uterus through an anterior abdominal wall defect creates unique obstetric and surgical challenges, particularly when the patient requests termination of pregnancy. Fewer than 50 such cases have been documented in world literature, most occurring in the third trimester. A 28-year-old multiparous woman (G4P2L2A1) at 12 weeks gestation presented with a large infraumbilical incisional hernia (defect 120×90 mm) through which the gravid uterus, bowel, and omentum were herniating, following two prior lower segment caesarean sections and a dilatation and curettage. She requested medical termination of pregnancy. A stepwise multidisciplinary protocol was adopted: mifepristone 200 mg orally, misoprostol 400 mcg vaginally (two doses), intracervical Foley catheter ripening (18 hours), and low-dose oxytocin augmentation. Manual reduction of the herniated uterus under ultrasound guidance preceded ultrasound-guided curettage. Histopathological examination confirmed complete evacuation of products of conception. Elective hernia repair by the General Surgery team completed definitive management. A systematic pharmacological and mechanical approach with prior manual uterine reduction can safely achieve medical termination of pregnancy in the setting of gravid uterine herniation, avoiding emergency laparotomy. Elective post-termination hernia repair is preferred. Multidisciplinary coordination and vigilant antenatal surveillance are essential in women with prior abdominal wall surgery.

Keywords: Gravid uterus, Incisional hernia, Medical termination of pregnancy, Caesarean scar, Multidisciplinary obstetric management, Rare obstetric complication

INTRODUCTION

Incisional hernia is a recognised late complication of abdominal surgery, occurring in 2-11% of laparotomy wounds, with the risk significantly amplified following caesarean section due to the relatively avascular nature of the lower segment incision, repeated surgeries, and the biomechanical stresses of subsequent pregnancies on the abdominal wall.¹ The scenario of a gravid uterus herniating through such a defect is exceedingly rare, with only scattered case reports in world literature.^{2,3} The coexistence of an enlarging gravid uterus within a hernial

sac poses multiple risks: incarceration, strangulation of herniated bowel or omentum, preterm labour triggered by mechanical pressure on the uterus, and catastrophic rupture of the hernia sac. When such a patient additionally seeks termination of pregnancy, clinical complexity is further amplified. The uterus must be evacuated safely without aggravating the hernial contents or precipitating surgical emergency.⁴

We present such a case managed successfully through a planned, stepwise, multidisciplinary approach, and discuss the relevant literature and management principles.

CASE REPORT

Patient demographics and presenting complaints

A 28-year-old woman (G4P2L2A1) was referred to the department of obstetrics and gynaecology with a live intrauterine pregnancy at 11 weeks 6 days (outside ultrasonography) and an incisional hernia, requesting medical termination of pregnancy. Her obstetric history included two lower segment caesarean sections (14 years

and 7 years prior) and one dilatation and curettage (1 year prior).

She reported a gradually increasing, reducible, painless infraumbilical swelling over the preceding year, worsening on standing and straining. Referral ultrasonography documented an anterior abdominal wall defect of 36 mm with a live intrauterine pregnancy of 11 weeks 6 days. Patient demographics and obstetric history are summarised in Table 1.

Table 1: Patient demographics and obstetric history.

Parameter	Detail
Age (years)	28
Obstetric history	G4P2L2A1
Gestational age at presentation	11 weeks 6 days (outside USG); confirmed 12 weeks 2 days on repeat USG
Previous surgeries	2×Lower segment caesarean section (14 and 7 years prior); 1×dilatation and curettage (1 year prior)
Chief complaint	Infraumbilical swelling × 1 year; live intrauterine pregnancy with request for medical termination of pregnancy
Defect size (USG)	120×90 mm infraumbilical anterior abdominal wall defect
Hernial contents (USG)	Gravid uterus (12 weeks 2 days), bowel, and omentum

USG - ultrasonography, LSCS - lower segment caesarean section, D and C - dilatation and curettage

Clinical examination

General physical examination revealed a haemodynamically stable, afebrile, moderately built patient. Abdominal examination demonstrated a soft, painless anterior wall swelling of approximately 8×10 cm in the infraumbilical region, with overlying hyperpigmentation and rugosity consistent with chronic herniation (Figure 1). The swelling was reducible and increased on straining and standing. The uterus was not separately palpable in its normal axis, suggesting herniation into the sac. Per speculum examination confirmed a closed cervical os with no bleeding or leaking per vaginum.



Figure 1: Pre-operative clinical photograph demonstrating the large infraumbilical incisional hernia sac with the herniating gravid uterus. Note the hyperpigmented, rugose overlying skin and the approximate size of the reducible swelling (8×10 cm).

Investigations

Repeat ultrasonography at our institution confirmed a live intrauterine pregnancy of 12 weeks 2 days with an anterior abdominal wall defect measuring 120×90 mm in the infraumbilical region, through which the gravid uterus, bowel, and omentum were herniating (Figure 2). Routine investigations included complete blood count, coagulation profile, renal and liver function tests, and blood group and Rh typing and all of those were within normal limits.



Figure 2: Supine patient view demonstrating the prominent infraumbilical swelling. Ultrasonography confirmed the gravid uterus, bowel, and omentum traversing through the anterior abdominal wall defect (120×90 mm).

Management

Given the rare and complex nature of this case, a multidisciplinary team comprising the departments of

obstetrics and gynaecology and general surgery was convened. The primary objective was safe termination of pregnancy followed by definitive hernia repair, while avoiding any surgical emergency during the process. The sequential management protocol was as follows.

Medical priming

Tablet mifepristone 200 mg was administered orally and the patient was observed for 48 hours per standard medical termination of pregnancy protocol.

Misoprostol administration

Tablet misoprostol 400 micrograms was administered vaginally in two doses, 12 hours apart. The patient reported minimal per vaginal spotting following the complete drug schedule.

Cervical assessment and foley catheter ripening

Per speculum examination revealed a cervical os that was 1 finger tight, uneffaced, and in midposition, indicating inadequate cervical ripening. An intracervical Foley catheter was inserted with gradual traction applied over 18 hours.

Oxytocin augmentation

Following Foley traction, the patient developed mild uterine contractions and the cervical os dilated to 3 cm with early effacement, with products of conception beginning to present at the os. Low-dose oxytocin (1 unit in 500 ml normal saline) was titrated over 36 hours; however, complete spontaneous expulsion did not occur.

Manual reduction and ultrasound-guided curettage

In consultation with the general surgery team, moderate external pressure was applied over the herniated site, successfully reducing the swelling and restoring the uterus to its normal pelvic axis (Figure 3). Ultrasound-guided check curettage was then performed under aseptic precautions, with complete evacuation confirmed (Figure 4). Post-procedure assessment and hernia repair

Products of conception were sent for histopathological examination (Table 2). Repeat ultrasonography at 24 hours post-procedure confirmed no retained products of conception. The patient was transferred to the general

surgery department for elective hernia repair, performed successfully. She was discharged in stable condition with contraceptive counselling and advised to avoid pregnancy for a minimum of one-year post-repair.

Haemodynamic parameters were closely monitored throughout; estimated blood loss was within acceptable limits and no intraoperative or postoperative complications were encountered.



Figure 3: Intraoperative photograph showing per vaginal instrumentation during the medical termination of pregnancy procedure, with the cervical os visualised via speculum. The image depicts the initial stages of curettage following successful manual reduction of the herniated uterus.



Figure 4: Intraoperative photograph depicting the products of conception evacuated during ultrasound-guided check curettage, confirming complete evacuation of uterine contents following successful hernia reduction and restoration of normal uterine axis.

Table 2: Histopathological examination report.

Parameter	Detail
Histopath number	H-328/26
Date of Collection	05 February 2026
Date of Reporting	18 February 2026
Referring clinician	Dr. Preeti Kanal
Specimen	Products of conception

Continued.

Parameter	Detail
Gross description	Multiple greyish brown to greyish black, soft to firm tissue pieces; total weight 5 g
Microscopic impression	H&E-stained sections show predominantly haemorrhage with decidual reaction — consistent with recent intrauterine pregnancy
Reported by	Dr. Pallavi Agrawal, Department of Pathology, MLB Medical College and Hospital, Jhansi

H and E: haematoxylin and eosin stain

DISCUSSION

Incisional hernias following caesarean section represent a well-recognised but uncommon surgical complication, with cumulative risk compounded by obesity, wound infection, poor tissue healing, and repeated surgeries through the same scar.¹ In our patient, two previous lower segment caesarean sections and a subsequent dilatation and curettage created progressive fascial weakness in the infraumbilical region, ultimately culminating in a 120×90 mm defect through which the gravid uterus, bowel, and omentum herniated.

What makes this case exceptional is that the gravid uterus itself herniated through this defect a scenario with fewer than 50 documented cases in world literature, most occurring in the third trimester.^{2,3,5} First-trimester presentation with a request for medical termination of pregnancy in such a case is exceptionally uncommon. The primary risks in this setting are incarceration and strangulation of hernial contents, particularly bowel and omentum.² The altered uterine axis further complicates standard evacuation protocols, as the uterus cannot be safely accessed without prior anatomical reduction to its normal pelvic axis.

The stepwise approach adopted in our case pharmacological cervical priming with mifepristone and misoprostol, mechanical ripening with an intracervical Foley catheter, oxytocin augmentation, followed by external manual reduction and ultrasound-guided curettage represents a thoughtful, minimally invasive strategy that successfully avoided emergency laparotomy.^{4,6} Surgical repair of the hernia during pregnancy carries significant risks including preterm labour, haemorrhage, mesh-related complications in an inflamed field, and difficulty achieving fascial closure around a gravid uterus. Deferring repair to the post-termination period aligns with the consensus preference for elective repair in a non-pregnant, evacuated uterus.^{5,7}

Histopathological examination of the evacuated material revealed haemorrhage with decidual reaction on H&E staining, confirming findings consistent with a recent intrauterine pregnancy and ruling out trophoblastic pathology.⁶ The role of multidisciplinary collaboration between obstetrics and gynaecology and general surgery was pivotal in ensuring safe, sequential management. This case also highlights the importance of preconception counselling regarding incisional hernia risk in women with prior abdominal surgeries, and the need for vigilant

antenatal surveillance in those who present with established hernias in subsequent pregnancies.

CONCLUSION

Herniation of the gravid uterus through an incisional abdominal wall defect is a rare obstetric presentation demanding prompt recognition and well-coordinated multidisciplinary management. A systematic medical approach to termination of pregnancy with manual reduction of the herniated uterus and ultrasound-guided curettage resulted in a safe outcome in this case without recourse to emergency laparotomy. Subsequent elective hernia repair completed definitive management. All women with prior abdominal surgeries should receive preconception counselling regarding the risk of incisional hernia and undergo vigilant antenatal surveillance in subsequent pregnancies.

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