FULL-TERM PREGNANCY IN AN INCISIONAL HERNIA: AN UNCOMMON OCCURRENCE

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ABSTRACT

Introduction: **Herniation of a full-term pregnancy is a rare event that poses risks for both mothers and babies. This condition can lead to lower uterine segment rupture and intrauterine foetal death.**

Case presentation: **We present a case of an incisional hernia with a full-term pregnancy. Despite initial plans for elective surgery, she presented in labour, requiring emergency laparotomy, caesarean delivery, and simultaneous hernia repair with successful outcomes for both the mother and baby.**

Conclusion: **Emergency laparotomy with caesarean delivery and simultaneous hernia repair is a feasible option for a gravid patient with incisional hernia in labour.**

Keywords: Incisional hernia, Full-term pregnancy, Labour, Emergency laparotomy, Caesarean delivery, Hernia repair

INTRODUCTION

An incisional hernia is a common complication that occurs when there is a weakness in the abdominal wall at the site of a previous surgical incision.[1] This can happen after any type of abdominal surgery, but it is most common with midline and transverse incisions. The incidence of herniation is often increased by a caesarean section due to the pressure of the gravid uterus on the fascia and poor repair technique. This hernia may become noticeable months or even years after the initial surgery.[2]

In most cases, the contents of a hernial sac are small bowel loops or omentum. Herniation of a pregnant uterus is rare, and full-term pregnancy in an incisional hernia is even rarer.[3] The low occurrence of a pregnant uterus herniating through an incisional defect is due to the uterus being too large by the time it reaches the hernial defect.[4] This condition poses serious risks to both the mother and the foetus. There may be potential complications such as incarceration, strangulation, excoriation, and ulceration of the overlying skin with bleeding.[3]

Management requires meticulous planning and individualized handling to achieve favourable outcomes. It depends on the severity of the condition and the stage of pregnancy.[4] While some hernias can be managed conservatively, others may require surgical intervention. In uncomplicated cases, hernia repair can be done simultaneously with a planned caesarean section at term.[4]

CASE PRESENTATION

A 37-year-old woman, gravida 5, para 4, presented in labour at 37 weeks gestation. She had booked earlier at 22 weeks gestation but was not compliant with her antenatal visits. She had two previous caesarean deliveries for foetal distress and macrosomia 6 and 8 years prior, which were performed through a midline infraumbilical incision. Both babies were born alive and healthy. She developed a surgical site infection (SSI) after her last caesarean section, requiring daily wound dressing with povidone iodine for 4 weeks. Four weeks later, she noticed swelling at the surgical site that was reducible. She had no features of intestinal obstruction. On physical examination, she was afebrile, not pale, anicteric, and well-hydrated. Her pulse rate was 90 beats/minute, and her blood pressure was 120/70 mmHg. Cardiovascular and respiratory examinations were normal. Abdominal examination revealed abnormal protuberant abdominal swelling, with hyperpigmentation and ulceration of the overlying skin, areas of excoriation, focal necrosis, and a broad infraumbilical incisional scar (Figure 1). A large fascial defect measuring 25x20 cm was found on the anterior abdominal wall, with the uterus herniating through it. The symphysio-fundal height was 37 cm, and the foetus was in a longitudinal and cephalic position within the

herniated uterus. The patient, a grand multiparous woman, was diagnosed with a large incisional hernia. Blood tests were normal, and ultrasound confirmed uterine herniation with a live foetus in cephalic position and no apparent congenital anomalies.

She underwent an emergency laparotomy and a caesarean delivery of a live female neonate with Apgar scores of 7 and 9 at 1 and 5 minutes, respectively, and a birth weight of 2.4 kg. The hernia was repaired using a double-breasting technique with nonabsorbable sutures, and the redundant, necrosed, and

Figure 1: Full-term pregnancy in an incisional hernia

hyperpigmented skin was excised, and apposed with nonabsorbable suture (Figure 2). Her postoperative recovery was uneventful, and she was discharged in good condition with a healthy baby. She had no complaints at her follow-up visits.

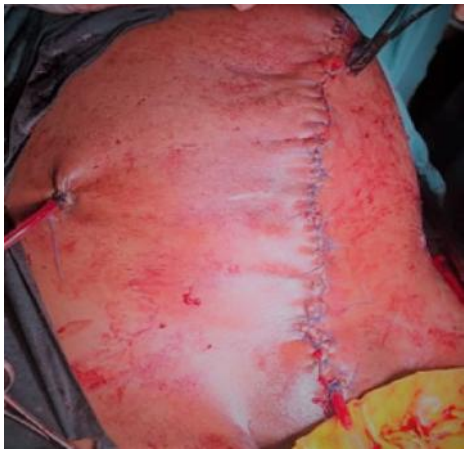

Figure 2: A photograph of the skin after anterior abdominal wall repair

DISCUSSION

The incidence of incisional hernia ranges from 4% to 20% after abdominal surgery, with caesarean section accounting for almost 3.1%.[4] Despite improvements in fascia closure techniques, suture materials and effective antibiotics to control sepsis, the incidence of incisional hernias has not significantly decreased due to the persistent increase in caesarean section rates.[2] A herniated uterus occurring during pregnancy is not only a rare clinical entity but also extremely challenging for the team of doctors attending to expectant mothers. Risk factors for incisional hernia include multiparity, obesity, postoperative pneumonia, poor surgical techniques, inappropriate suture choices for fascia closure, additional surgical procedures, wound infection, and wound dehiscence.[5] Infraumbilical vertical incisions in caesarean sections are more likely to lead to incisional hernias compared to transverse suprapubic incisions due to the orientation of the incision and forces acting in the latter technique.[5] Our patient was a multiparous woman with previous infraumbilical vertical incisions, and her previous caesarean section was complicated by a surgical site infection.

Herniation of the gravid uterus poses serious obstetric problems with high potential for maternal and foetal morbidity and mortality. Complications can include intrauterine growth restrictions, preterm labour, abortion, lower uterine segment rupture, and poor placental perfusion which can cause foetal death.[3,5] Increased pressure from the growing uterus in the hernia sac can cause vascular compromise of the overstretched skin, leading to skin ulceration, necrosis, and complete evisceration of the gravid uterus.[2,5] The patient in this report had excoriation and ulceration of the skin overlying the hernia. Similar findings were reported by Misra et al.,[2] but these complications were absent in the case reported by Qadir *et al.*[4]

Diagnosis of a gravid uterus in an incisional hernia is made through history, presence of an unusual bulge, and an easily palpable uterus and foetal parts,[6] as was the case in our report. Ultrasound and magnetic resonance imaging can be used to evaluate maternal abdominal wall status and foetal conditions.[2] The index case was evaluated with an ultrasound scan to exclude foetal complications.

The absence of consensus on optimal treatment due to the scarcity of reported cases poses a management dilemma. Therapeutic options include a caesarean section with hernia repair or vaginal birth with delayed repair.[6] Elective caesarean section is often considered the safest mode of delivery due to uncertainties about the integrity of the abdominal wall during labour.[6] In this case, an emergency laparotomy, caesarean delivery, and simultaneous hernia repair with nonabsorbable sutures were performed. We excised areas with excoriation and ulceration in the skin.

Nonabsorbable mesh is another option for repair, as incisional hernia repair with mesh has been reported to be superior to suture repair in terms of recurrence and postoperative long-term outcomes.[2] Recently, successful laparoscopic hernioplasty during pregnancy was reported.[7] More data are still required to standardise such procedures in pregnancy and prognosticate their use in subsequent pregnancies.

CONCLUSION

Incisional hernia with a full-term pregnancy presenting in labour is a rare condition with significant obstetrical risks, requiring emergency management. Emergency laparotomy with caesarean delivery and simultaneous hernia repair is a safe and feasible option.

Adherence to surgical principles in emergency abdominal operations, including caesarean sections, is crucial to prevent future occurrences.

Conflict of Interest Statement

The authors affirm that they have no conflict of interests to declare.

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