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Incarcerated Near Term Gravid Uterus in an Incisional Hernia: Neglected Obstetric Presentation In Rural Central India

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Abstract
Anterior abdominal wall hernia following abdominal surgeries such as caesarean sections are not uncommon. Yet, herniation of a gravid uterus into these hernias is even rarer. Although reducible initially, the herniation of pregnant uterus may be complicated by incarceration and subsequent strangulation within the hernial sac, late in the third trimester of pregnancy. We present here a case of herniation of gravid uterus into the anterior abdominal wall in the 33rd week of pregnancy and was successfully operated with a live neonate of 1.9 kg and the hernioplasty performed simultaneously.

INTRODUCTION

Incarcerated herniation of gravid uterus through an incisional hernia is a rare obstetric presentation and not more than 15 caseshave been reportedtill date[1,2,3]. Incisional hernia is a known complication of anterior abdominal surgeries including cesarean sections, especially those done with a vertical incision where the incidence has been reported to be 2 per 1000 procedures[4]. Given the increasing trend towards larger number of childbirths through cesarean route, we could expect several incisional hernias and also some herniation of the gravid uterus. In fact, the World Health Organization recommends that 10% of all childbirths at a community level should ideally happen through cesarean section route[5]. Herniation of gravid uterus is however rare because of the fact that by the time the uterus reaches the level of hernial aperture, it is usually too large to enter the hernial sac. However, when herniation happens, these hernias may be reducible, but delay in recognition of this condition can lead to incarceration and subsequent strangulation of gravid uterus, preterm labour, IUGR, accidental hemorrhage, intrauterine death, rupture of lower segment of uterus or burst abdomen may ensue. Presentation in the third trimester poses diagnostic and management challenges in this neglected obstetric presentation in modern day clinics. We report one such presentation in a second gravida woman in our referral hospital in Chhattisgarh in central India.

Clinical Details: 30-year-old woman, second gravida came to our emergency department at 33 weeks amenorrhea with chief complaints of an abnormal bulge in her lower abdomen andsevere dragging pain. The abdominal bulge was anterior and the pain in her abdomen was of moderate intensity and continuous dragging type. She did not report any vomiting, or fever, diarrhea or constipation. There was no dysuria or any lower urinary tract symptoms. She had noticed quickening at 5 months of this pregnancy. Her first pregnancy was delivered at term through a cesarean section 2 years ago in which her post operative recovery was eventful. However, a small swelling persisted following this abdominal surgery.

Examination revealed an abnormal uterine bulge, with fetal poles not well defined, with tenting and ballooning in the anterior lower abdomen and a fundal height corresponding to 30 weeks. The skin over the lump was unhealthy, unduly stretched, ulcerated at some places, with sero-purulent discharge oozing from them, in fact the scar of previous CS not well defined(see figure 1) This uterine lump had restricted mobility, fetal parts could not be made out well and was not reducible. Fetal movements could be appreciated though fetal heart sounds could not be localized on examination.

Ultrasonography revealeda live intrauterine live fetus of 32 weeks with mild oligohydramnios. The gravid uterus was seen herniating through the incisional hernia.

The differential diagnosis of a secondary abdominal pregnancy or of an ovarian cyst with pregnancy were ruled out after the ultraosonography. With a diagnosis of an incarcerated gravid uterus with 32 weeks pregnancy in an incisional hernia with impending dehiscence of anterior abdominal wall, we observed her closely for a week, with dexamethasone for fetal lung maturity, dressing of wounds, IV antibiotics and daily fetal movement score and monitoring for danger signs. An emergency CS for impending strangulation of the incarcerated uterus was done7 days later (figure 2).

Cesarean section was done through a midline incision. The lower segment was incised with the uterus still in the hernial sac and a 2 kg singleton live baby was delivered who did not have any respiratory distress. After the removal of the placenta, the uterus was reduced inside the abdominal cavity and sutured. Adhesions around the omentumwere removed which had also herniated into the sac. There was a large hernial defect identified of 15 cm *15 cm in the rectus sheath for which herniorrhaphy was done using a mesh repair (fig. 3). The post operative period was uneventful and an abdominal binder was advised for a month. Three months later the patient did not show any recurrence of the hernia.

RESULTS AND DISCUSSIONS

Incisional hernia occurs in approximately 10-15 percent of patients with a prior abdominal incision[6]. The most common abdominal surgery that results in an incisional hernia is cesarean section. No evidence-based approach has been described in literature in the management of incisional hernia in pregnancy. Anterior abdominal wall hernias are uncommon in pregnancy; herniation of gravid uterus through the abdominal wall is an even rarer and potentially serious complication.

Two meta-analyses have confirmed that the risk of developing an incisional hernia after abdominal surgery is higher after a midline than a transverse incision[8,9], as well as suture material and suture technique used to close the fascia, low body mass index, anemia and wound site infections.

Diagnosis of a gravid uterus in an incisional hernia is made by the history of hernia between pregnancies, presence of an unusual bulge of the abdomen with stretched skin and easily palpable uterus and fetal parts. Imaging studies like ultrasound and magnetic resonance imaging can also assist in diagnosis. If there is incarceration, the uterus would be irreducible without any other symptoms; if there is strangulation,

the patient can have severe abdominal pain and vomiting.

The management of these pregnant patients with incisional hernia poses a dilemma as no consensus approach has been described. A conservative approach, including manual reduction of hernia and use of an abdominal binder during the antenatal period and labor, has been applied with varying success. Strangulation at or near term appears to be a genuine indication for early hospitalization and elective cesarean section combined with hernial repair.

It may not be feasible to perform LSCS in some patients due to unusual shape and contour of the uterus and an inapproachable lower segment; for these patients, a classic approach may be easier. Among patients with midline abdominal incisional hernias, mesh repair is superior to suture repair in preventing recurrence of hernia, regardless of the size of the hernia[10].

The role of abdominal binder during the postoperative period is not known. It probably promotes healing as it prevents excessive tension on the site of repair.

The management of pregnant patients with uterus lying in incisional hernia needs to be individualized depending upon the severity of complications and the gestational age at presentation.

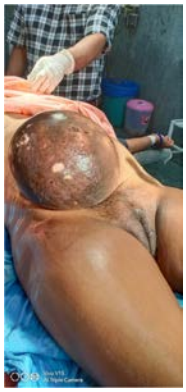

Fig. 1: Abdominal bulge along with unhealthy stretched skin

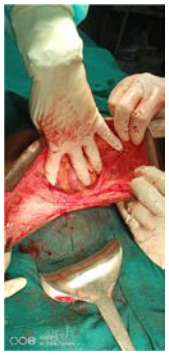

Fig. 2:Incisional hernial ring after reduction of the uterus in the peritoneal cavity)

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