

CASE REPORT

Pregnancy with Large Incisional Hernia: A Rare Case Presentation

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Abstract

The management of incisional hernia in pregnancy is mainly conservative. A Caesarean section in a woman with a large incisional hernia offers a means of hernia repair during the operation. We report a case of full term pregnancy in a third gravida aged 36 years who had previous two cesarean sections through the midline scar. Incisional hernia developed as a complication because of the previous operations. Cesarean section with bilateral tubal ligation was done with repair of the incisional hernia with non-absorbable sutures. The post-operative recovery was uneventful. During emergency operations including cesarean sections, surgical principles should always be observed in order to prevent the occurrence of incisional hernias.

Key Words

Incisional Hernia, Cesarean Scar

Introduction

The incidence of incisional hernia following Caesarean section by vertical incision is 3.1%. Vertical skin incisions are associated with more wound complications than transverse incision. Post-operative abdominal distention, intra-abdominal sepsis, residual intra-abdominal abscess, wound infection, wound dehiscence and post-operative fever contribute significantly to the incidence of incisional hernia.(1)

Case Report

A 36 years old female, gravida three with previous two live issues, both born by cesarean section presented to Shri Maharaja Gulab Singh (SMGS) hospital (associated to tertiary care Government Medical College Jammu), at a gestational period of 37 weeks and 6 days with a large ventral wall incisional hernia. (Fig1)

A detailed history revealed that her first child was born 7 years ago by LSCS for meconium passage and her last child was born 5 years back by LSCS for previous LSCS with impending rupture. She developed this hernia few months following the cesarean section and was advised

surgery for the same but she refused. The hernia gradually enlarged during present pregnancy. There was no history of pain or vomiting which could clinically suggest obstruction or strangulation. Her presenting symptom was a sense of heaviness and something protruding out of lower abdomen.

On examination, she had pallor, her blood pressure

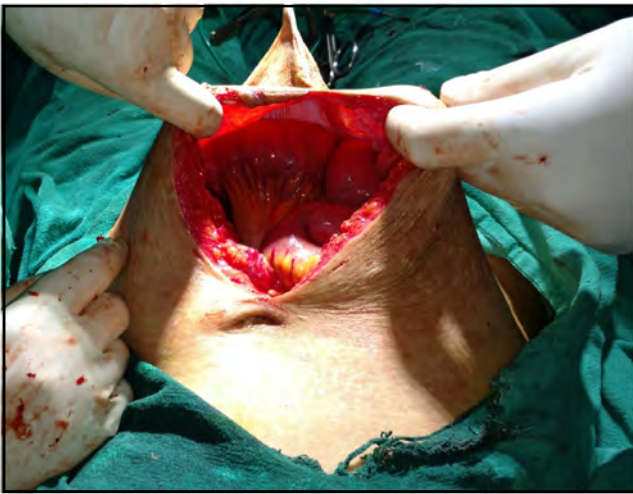
Fig 1. Large Incisional Hernia with Pregnancy



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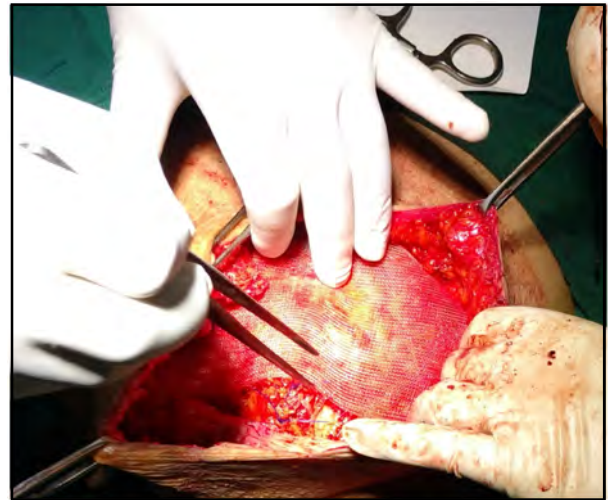
Fig 2. Small Intestine in the Hernial Sac



was 120/84 mm Hg. On inspection, stria with a lower abdominal swelling overlying a previously stretched longitudinal Caesarean scar was present. The swelling was located 5 centimetres below the umbilicus, its dimensions were 20×15×12 centimeters. There was visible peristalsis over the swelling. On palpation there was a doughy feel and on auscultation bowel sounds and fetal sounds were audible. Hematological investigations revealed neutrophilia (72.7%). Other baseline investigations (RFTS, LFTS, Urine Routine Examination, Blood Sugar, Thyroid Profile, ECG, Serology) were within normal range.

An elective lower segment Cesarean section with bilateral tubal ligation with hernia repair under spinal anaesthesia was planned and a team of gynecologists and a surgeon performed the procedure. The abdomen was opened by excising previous midline scar. The hernial sac was found to be composed of small intestine protruding through the weakened abdominal wall. (Figure 2) Lower segment Cesarean section with bilateral tubal ligation was done as per standard protocol. A 2.6 kg male baby with apgar score 10/10 was delivered followed by placenta and uterus was closed. The outside edges of the weakened hernial area were defined and excess tissue was removed from within the area. Prolene mesh was then applied in such a manner that it overlapped the weakened area by several inches in all directions. (Fig

Fig 3. Insertion of Prolene Mesh



3) Non-absorbable prolene sutures were placed into full thickness of the abdominal wall, with knots on inside surface. The redundant skin was excised and the wound was closed with a suction drain. Recovery was uneventful and the patient was discharged after removing the stitches on the tenth postoperative day.

Discussion

Incisional hernia is a frequent complication of abdominal wall closure with a reported incidence of between 5% and 15% following vertical midline incisions at one-year follow-up.⁸ There is a cumulated risk of 0.197% of developing an incisional hernia requiring surgical repair within 10 years after a cesarean delivery. The risk of a hernia repair was higher during the first 3 years after a cesarean delivery.⁴ Preoperative, intraoperative and postoperative factors affect the incidence of incisional hernia. Among the pre-operative factors were anaemia (Hb < 100 g/l). A high preoperative hematocrit was protective.³ BMI > 25 is also a risk factor.⁽²⁾ Primary cesarean delivery in the severely obese parturient has a high incidence of wound complications with overall incidence of 12.1%.⁽³⁾ The intra-operative factors were the type of incision, as all those who developed incisional hernia had a midline incision. (1) A vertical skin incision is associated with a higher rate of wound complications than a transverse incision.⁽³⁾ However, transverse abdominal incisions have no

advantage over midline incisions in reducing incisional hernia rate.(9) Post-operative factors which contribute to increased risk of incisional hernia are abdominal distention, intra-abdominal sepsis, residual intra-abdominal abscess, wound infection, wound dehiscence, post-operative fever, need for additional operative procedures and antibiotic administration longer than usual with use of more potent antibiotics (1), recurrent incisions and previous laparotomy (2), catecholamin-therapy and disturbed wound healing.(3) Our patient had a vertical infraumbilical incision and she did not have any other above mentioned predisposing factors.

Those who developed incisional hernias also suffered other postoperative complications and stayed longer in the hospital after the operation.(1)

Long-term complications and impact on future pregnancies necessitate carefully planned management of these patients. Complications like skin necrosis, morbid incarceration of abdominal viscus and herniation of gravid uterus into the sac have been reported.(5,6)

Incidences of isolated traumatic, septic and spontaneous rupture of incisional hernia have been reported.(5,7)

The management of incisional hernia in pregnancy is mainly conservative. A Caesarean section in a woman with a large incisional hernia offers a means of hernia repair during the same procedure. Likewise, we utilized the opportunity of the cesarean section in our patient to do the simultaneous hernia repair. A vaginal birth provides time for healing and repair can be scheduled at a later date. During pregnancy it is mandatory to perform an emergency operation if there is necrosis of the skin, symptoms of morbid incarceration and rupture. In such situations, the shoelace repair has been the preferred method of repair because it is advantageous over other procedures. Prosthetic mesh tends to contract and harden and may seriously interfere with abdominal expansion in pregnancy. Recurrences have been reported with herniorrhaphies, as the enlarged uterus may interfere with healing. (9)

Simultaneous repair of umbilical and inguinal hernia along with Caesarean section have been reported in small pilot studies but to recommend it as an established procedure studies in a larger number of patients are required.(10) Successful laparoscopic hernioplasty during pregnancy have been reported, although more data is essential to standardize laparoscopic procedures in pregnancy.(11)

Conclusion

During emergency operations including cesarean sections, surgical principles should always be observed in order to prevent the occurrence of incisional hernias.

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