Incisional hernia with incarcerated gravid uterus in a 36 week pregnant woman

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Background

Incisional hernias are a well-known, but low-risk, complication following C-section delivery with a 2020 review[1] noting a 0.0%-5.6% occurrence rate and identification of surgical site infections, obesity, smoking, midline incisions and emergency surgeries as risk factors. Incarceration within these hernias is an uncommon complication of nonoperatively managed incisional hernias with one study[2] finding a 2.3% rate of occurrence after 5 years. Incarceration of a gravid uterus, however, is an extremely rare occurrence with 23 published case reports[3] as of 2025.

Case Presentation

The patient is a G4P1022, 39F with a pSHx of C-section with resultant 10cm incisional hernia. Surgical intervention at that time was deferred due to patient's wish of a desired further pregnancy. During her current pregnancy, the bulge and discomfort increased, and she presented in clinic for discussion of an elective hernia repair. A C-section with combined bridging biologic mesh repair was scheduled for gestational week 37 with a plan for definitive repair to occur 3 months following delivery. At 35 weeks, the patient experienced worsening herniation with concerns for decreased fetal movement as well as overlying skin ulceration. Fetal monitoring was reassuring, and an MRI revealed an 18x14 cm defect with the head and neck of the fetus, half the placenta, and 50% of the patient's uterus herniating through.

Management

Exploratory laparotomy was performed with reduction of the gravid uterus into the abdominal cavity. OBGYN performed an uneventful C-section delivery with bilateral tubal ligation. The hernia sac was circumferentially excised from the defect, and the anterior fascia was cleared 4cm in all directions. Given the laxity of the tissues, the defect was successfully repaired primarily with running 0 PDS suture. Myriad morcells were applied over the closure and an ovitex mesh was secured in overlay fashion.

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Imaging

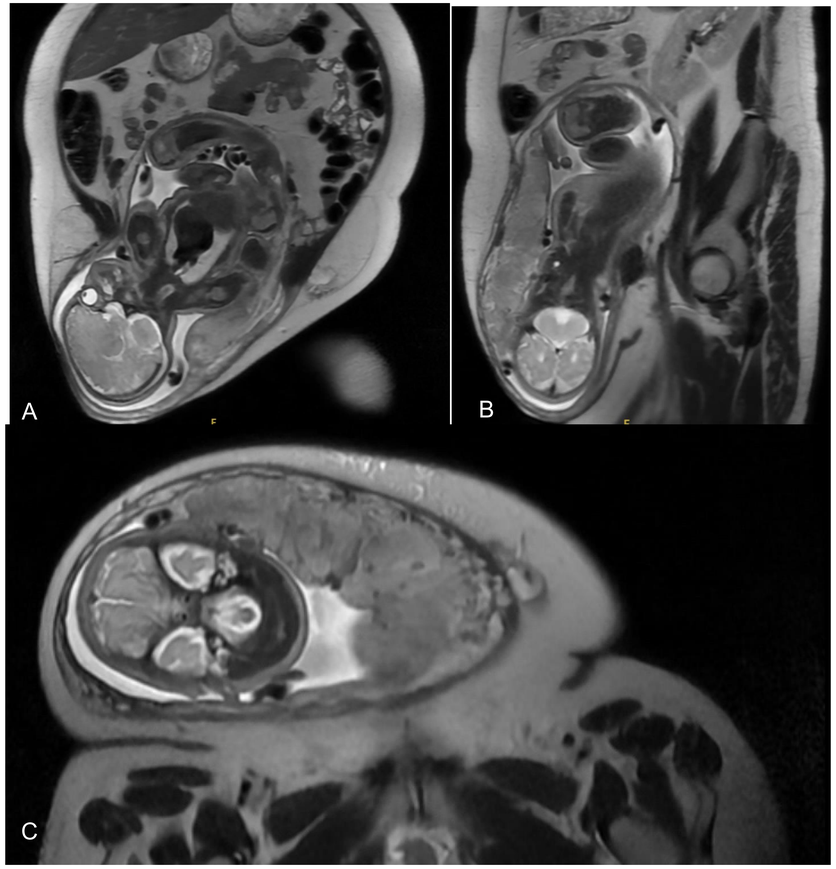

Image 1: MRI in Coronal (A), Sagittal (B) and Axial (C) planes revealing the gravid uterus, Fetal head and placenta herniating through a large incisional hernia.

Outcome

The patient was discharged on POD 4 with two drains in place after an uncomplicated postpartum/postoperative recovery. Follow up at one week for drain removal was uneventful. Given the complete closure of her hernia defect with minimal tension and adequate mesh overlap, the repair was considered definitive and no further surgical plans were indicated.

Discussion

Given the scarcity of incidence, there is no consensus or recommendations for the timing or technique for the surgical management of an incarcerated gravid uterus within an incisional hernia. Management should be individualized to the patient. While our patient underwent a successful primary repair with onlay mesh, long-term success is yet to be determined.

References

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