

Herniation of Gravid Uterus: Case Report

Noopur Chawla ¹, Kiran Aggarwal ², Anuradha Singh ^{3*}, Prabha Lal ³ and Kavita Badhal ⁴

¹ Senior Resident MD obstetrics and Gynaecology Department of Obstetrics and Gynaecology Lady Hardinge Medical College, New Delhi, India.

² Director Professor and Head of Department MD obstetrics and Gynaecology Department of Obstetrics and Gynaecology Lady Hardinge Medical College, New Delhi, India.

³ Professor MD, obstetrics and Gynaecology Department of Obstetrics and Gynaecology Lady Hardinge Medical College, New Delhi, India.

⁴ Junior Resident Obstetrics and Gynaecology Department of Obstetrics and Gynaecology Lady Hardinge Medical College, New Delhi, India.

***Corresponding Author:** Anuradha Singh. Professor MD, obstetrics and Gynaecology Department of Obstetrics and Gynaecology Lady Hardinge Medical College, New Delhi, India.

Received date: March 01, 2024; **Accepted date:** March 11, 2024; **Published date:** March 18, 2024.

Citation: Noopur Chawla, Kiran Aggarwal, Anuradha Singh, Prabha Lal and Kavita Badhal, (2024), Herniation of Gravid Uterus: Case Report. *J.Clinical Case Reports and Studies*, 5(1); DOI:10.31579/2690-8808/187

Copyright: © 2024, Anuradha Singh. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Abstract

Incisional hernia is the most common long-term complication of abdominal surgery. After midline laparotomy, more than 10% of patients develop an incisional hernia. Anterior abdominal wall hernias are uncommon in pregnancy. Hernias complicating pregnancy can be an obstetric as well as a surgical challenge to manage especially if the hernia is complicated or the patient comes into labor at term gestation. We reported 2 cases of a young woman who presented to us with term gestation in labor with a large anterior abdominal wall hernia and the challenges we faced in managing the cases.

Key Words: pregnancy; incisional hernia; abdominal surgery; herniation of uterus; skin ulcers

Case Presentation

Herniation of Gravid Uterus: Report of 2 Cases

Incisional hernia is the most common long-term complication of abdominal surgery. After midline laparotomy, more than 10% of patients develop an incisional hernia. Anterior abdominal wall hernias are uncommon in pregnancy. Hernias complicating pregnancy can be an obstetric as well as a surgical challenge to manage especially if the hernia is complicated or the patient comes into labor at term gestation. We reported 2 cases of a young woman who presented to us with term gestation in labor with a large anterior abdominal wall hernia and the challenges we faced in managing the cases

Case 1:

A 21-year-old lady, G2P1L0 at 37 weeks gestation presented to us in an emergency in early labor with a large incisional hernia. She gave a history of having undergone an exploratory laparotomy for suspected tubercular pyoperitoneum 10 days after her first normal vaginal delivery. She had stitch line sepsis and had a prolonged hospital stay of 3 months after the laparotomy due to poor healing of the stitch line for which a skin graft was placed. She was consequently started on antitubercular treatment. After 7-8 months of surgery, she started developing a gradually increasing swelling in the abdomen arising from the surgical scar which was then diagnosed to be an incisional hernia for which she did not take any treatment. She conceived

again 1 month after developing the hernia. The patient also gave a history of occasional pain abdomen which was resolved with analgesics.

She was admitted at 24 weeks of gestation to our hospital with pain abdomen. Ultrasonography showed the gravid uterus to be the content of the incisional hernia sac. She was managed conservatively with bed rest and analgesics and was discharged after 2 days. The patient was lost to follow-up after 24 weeks of period of gestation.

At 37 weeks the patient presented in early labor. Her vitals were stable and per abdominal examination revealed a large 20 x 20 cm incisional hernia arising due to a defect from the midline incision. It was globular in shape and an old skin graft was present on its surface. The skin was dry and scaly with a large superficial ulcer measuring 7 x 2 cm on the surface of the hernia with unhealthy margins (Fig 1) On palpation, the uterus was present in the hernial sac but it was reducible without any complication, abdomen had a doughy consistency and was non-tender. It was difficult to palpate the uterine contour and contractions which made monitoring of labor difficult and the fetal heart could only be heard by on CTG. Her investigations showed mild anemia Hb 10gm%, and liver and kidney functions were normal. Since the patient had no hernia-related or obstetric complications the patient was allowed for normal vaginal delivery. She delivered a baby girl weighing 1.8 kg uneventfully. The post-delivery patient was planned for the repair of a hernia.



Figure 1

Case 2:

A 24-years old G2P1L1 with previous LSCS done for Cephalopelvic disproportion with obstructed labor, was admitted to our hospital at 36 weeks POG in early labor. On examination her vitals were stable. Abdominal examination revealed gravid uterus eventrating out through previous LSCS midline scar area (Fig 2). Her investigations showed mild anemia. The patient underwent emergency LSCS for CPD in labor along with repair of incisional hernia by the surgical team using the double breasting technique of rectus sheath. The postoperative course was uneventful and the patient was discharged on the 10th postop day. Few similar case reports have been described in the literature, that highlight the risk factors, complications during pregnancy, timing, and method of repair. Multiple risk factors for incisional hernia have been identified, including obesity, infection, diabetes, smoking, immunosuppression medication, ascites, advanced age, and poor nutritional status [1,2]. Pregnancy itself is also associated with an increased risk of abdominal hernia recurrence [3]. Midline incisions are associated with a higher incidence of incisional hernia than transverse incisions which was

present in our patient as well [4]. In the cases reported in the literature, the Cesarean section accounts for approximately 60% of the surgeries that lead to incisional hernia whose incidence is 3%. [5-9] However in our case preceding surgery was laparotomy with pyoperitoneum. The risk factors following cesarean sections which are associated with hernia formation include the need for additional operative procedures, postoperative abdominal distension, intra-abdominal sepsis, residual intra-abdominal abscess, Surgical site infection and wound dehiscence [10]. Our patient had a history of midline incision laparotomy followed by wound infection and intraabdominal sepsis, a poor nutritional status which was the probable reasons for the incisional hernia. As the uterus is very much enlarged to fit inside the hernial sac by the time it reaches the level of the hernial aperture, herniation of the gravid uterus is probably uncommon. However, in both instances, the uterus was a component of the hernial sac. Although initially reducible, late in the course of pregnancy, incarceration and subsequent strangulation within the hernial sac may complicate the herniation of the pregnant uterus.



Figure 2

The usual complications encountered include burst abdomen, incarceration, strangulation or evisceration of the uterus in the hernial sac complicating the obstetric management [12-16] The skin overlying the distended hernia can ulcerate and act as a source of infection which was present in our patients [17]. The other problem encountered is physical discomfort caused by a gravid uterus hanging down in the abdomen. Hernias have previously been estimated to account for under 5 % of the cases of bowel obstruction during pregnancy [18]. There may be potential obstetrics complications like spontaneous abortion, preterm labor, accidental hemorrhage, intrauterine fetal death, and rupture of the lower uterine segment during labor [19] Hence, such patients require multidisciplinary teamwork.

The management includes reduction of gravid uterus in abdominal cavity if uncomplicated, Obstetrical management and treatment of ulcers. It depends on the symptoms and the stage of pregnancy at the time of diagnosis. It may be preferable to postpone surgery for pregnant patients with minor, asymptomatic hernias until after birth or after the last pregnancy. It may be also advisable to delay the repair until the second trimester or after delivery if complications do not arise if the hernia is symptomatic and appears to be affecting the patient's quality of life. If the hernia is significant and causing symptoms in individuals who are not pregnant, it may be preferable to perform an elective repair and then postpone the next pregnancy for a year or two. The recurrence of Hernia is significantly increased by pregnancy. When possible, laparoscopic mesh repair should be offered; however, in complex cases, the open method may be preferable. In cases of severe contamination as well as small hernias, the suture repair may be appropriate [20].

In strangulation occurring in early pregnancy immediate repair is required and the pregnancy may be carried to term. Pregnancy-related incisional hernia does not necessarily require a caesarean section. Regardless of the extent of the hernia, mesh surgery is more effective than suture repair at preventing recurrence. After surgery, an abdominal binder may be worn. While complications are possible, careful management, as in our situation, can result in a successful pregnancy.

The patient in our first case had a fetal growth restriction, was in spontaneous labor, had an incisional hernia, and the uterus had everted into a sac with trophic ulcers. Manual repositioning of the uterus during labor enabled for a successful vaginal delivery for the patient. Post-delivery patient was planned for hernia repair by the Surgical team. In the second case-patient had to undergo emergency LSCS so it was combined with mesh repair of the Incisional hernia done by the surgical team Despite the limited long-term follow-up, future pregnancy following mesh surgery of an abdominal wall hernia appears safe and without a significantly increased risk of hernia. No consensus can be drawn regarding pregnancy following suture repair for recurrence, based on the literature found, however, the overall risk of recurrence following suture repair in non-pregnant individuals indicates that this practice should be avoided [21].

Primary prevention of incisional hernia entails thorough preoperative preparation of the patient before primary surgery, correcting anemia and hypoproteinemia and treatment of comorbidities, careful closure of the abdomen using evidence-based techniques, use of monofilament sutures, minimal tissue handling, meticulous hemostasis, prevention of hematoma formation and surgical site infection along with strict asepsis.

Depending on the nature of the complications and the gestational age at presentation, the treatment of pregnant patients with uterus lying in incisional hernia necessitates special attention. The history, detailed clinical, and ultrasound examination are the three key elements of diagnosis. It is advised to adopt conservative management until term, and herniorrhaphy should wait until after birth because the gravid uterus prevents optimal repair throughout the prenatal period. However, if the uterus is strangled at or close to term, an emergency laparotomy cesarean delivery followed by hernia surgery is the preferred treatment

Conflict of Interest:

Authors Noopur Chawla, Kiran Agarwal, Anuradha Singh, Prabha Lal declare that they have no conflict of interest.

Funding:

Nil.

References

1. Michael J, Zinner SW, Ashley MAO. (2019). Maingot's Abdominal Operations. chapter 13. 19:500–568.
2. Itatsu K, Yokoyama Y, Sugawara G, Kubota H, Tojima Y et al. (2014). Incidence of and risk factors for incisional hernia after abdominal surgery. *British Journal of Surgery*. 101(11):1439–1447.
3. Lappen JR, Sheyn D, Hackney DN (2016). Does pregnancy increase the risk of abdominal hernia recurrence after prepregnancy surgical repair? In: *American Journal of Obstetrics and Gynecology*. Mosby Inc. p. 390.e1-390.e5.
4. Isse Huu Nho R, Mege D, Ouaiissi M, Sielezneff I, Sastre B. (2012). Incidence and prevention of ventral incisional hernia. *Journal of Visceral Surgery*. 149(5): e3–14.
5. F.O. Dare O. I. (1990). Gravid uterus in an anterior abdominal wall hernia of a Nigerian woman. *Int J Gynecol Obstet*. 311–379.
6. Palazzo F, Ragazzi S., (2010). Herniated gravid uterus through an incisional hernia treated with the component separation technique. *Hernia*. 14(1):101–104.
7. Saha PK, Rohilla M, Prasad GRV, Dhaliwal LK, Gupta I. (2006). Herniation of Gravid Uterus: Report of 2 Cases and Review of Literature. *Medscape General Medicine* [Internet]. 8(4):14
8. Sahu L, Bupathy A. (2006). Evisceration of the pregnant uterus through the incisional hernia site. *Journal of Obstetrics and Gynaecology Research*. 32(3):338–340.
9. Banerjee N, Deka D, (2001). Gravid uterus in an incisional hernia. *Journal of Obstetrics and Gynaecology Research*. 27(2):77–79.
10. RK Adesunkanmi, B Faleyimu. (2003). Incidence and aetiological factors of incisional hernia in post- caesarean operations in a Nigerian hospital. *Journal of Obstetrics and Gynaecology*. 23(3):258–260.
11. Banerjee N, Deka D, Sinha A, Prasad R, Takkar D. (2001). Gravid uterus in an incisional hernia. *Journal of Obstetrics and Gynaecology Research*. 27(2):77–79.
12. Sahu L, Bupathy A. (2006). Evisceration of pregnant uterus through the incisional hernia site. *Journal of Obstetrics and Gynaecology Research*. 32(3):338-340.
13. Palazzo F, Ragazzi S, Ferrara D, Piazza D. (2010). Herniated gravid uterus through an incisional hernia treated with the component separation technique. *Hernia*. 14(1):101-104.
14. F.O. Dare. Makinde and. Lawal. (1990). Gravid uterus in an anterior abdominal wall hernia of a Nigerian woman. *Int J Gynecol Obstet*. 311-379.
15. Fujiyuki Inaba Takeshi Kawatu Kaoru Masaoka Ichio Fukasaw Hiroshi Watanab Noriyuki Inab. (2005). incarceration of gravid uterus. *Arch Gynecol Obstet* [Internet]. 55–57.
16. K. Sikdar (1978). NNRC.Herniation of gravid uterus with atrophic skin ulceration. *Journal of obstetrics and Gynaecology of India.*;
17. E Mayer H Hussain. (1998). Abdominal pain during pregnancy. *Gastroenterol Clin North Am* 27(1):1-36.
18. Saha PK, Rohilla M, Prasad GRV, Dhaliwal LK, Gupta I. (2006). Herniation of Gravid Uterus: Report of 2 Cases and Review of Literature. *Medscape General Medicine* [Internet]. 8(4):14.

19. Danawar NA, Mekaieel A, Raut S, Reddy I, Malik BH. (2020). How to Treat Hernias in Pregnant Women? Cureus.
20. Christoffersen MW, Helgstrand F, Rosenberg J, Kehlet H, Bisgaard T. Lower Reoperation Rate for Recurrence after Mesh versus Sutured Elective Repair in Small Umbilical and Epigastric Hernias. A Nationwide Register Study.
21. Jensen KK, Henriksen NA, Jorgensen L N. Abdominal wall hernia and pregnancy: a systematic review.



This work is licensed under Creative Commons Attribution 4.0 License

To Submit Your Article Click Here: [Submit Manuscript](#)

DOI: [10.31579/2690-8808/187](https://doi.org/10.31579/2690-8808/187)

Ready to submit your research? Choose Auctores and benefit from:

- fast, convenient online submission
- rigorous peer review by experienced research in your field
- rapid publication on acceptance
- authors retain copyrights
- unique DOI for all articles
- immediate, unrestricted online access

At Auctores, research is always in progress.

Learn more <https://auctoresonline.org/journals/journal-of-clinical-case-reports-and-studies>