Case Report

iMedPub Journals
www.imedpub.com

Medical Case Reports
ISSN 2471-8041

2020
Vol.6 No.2:141

DOI: 10.36648/2471-8041.6.2.141

An Incarcerated Hernia Complicated by Intestinal Obstruction during Pregnancy - A Case Report

Aliou Diouf[1,2*], Abdourahmane Ndong[1], Ousmane Thiam[1], Mamour Guèye[2], Mame Diarra Guèye[2], Djibril Bahaid Sow[1], Cherif Tourad Sarr[1] and Ibrahima Konaté[3]

[1]Regional Hospital Center of Saint-Louis, BP 401, Saint-Louis, Senegal

[2]Gynecological and Obstetric Clinic, EPS Aristide Le Dantec, BP, Senegal

[3]Gaston Berger University, BP 234, Saint-Louis, Senegal

[*]**Corresponding author:** Dr. Aliou Diouf, Gynecological and Obstetric Clinic, EPS Aristide Le Dantec Regional Hospital Center of Saint-Louis, Senegal, Tel:+ 221776412302, E-mail: alioudiouf69@yahoo.com

Received date: May 11, 2020; **Accepted date:** June 04, 2020; **Published date:** June 11, 2020

Citation: Diouf A, Ndong A, Thiam O, Gueye M, Gueye MD, et al. (2020) An Incarcerated Hernia Complicated by Intestinal Obstruction during Pregnancy - A Case Report. Med Case Rep Vol.6 No.2:141.

Abstract

Context: Hernias generally coexist with pregnancy; however, an incarcerated hernia with intestinal obstruction is rare at an advanced stage of gestation and requires urgent intervention.

Case report: A multiparous woman with a known large incisal hernia presented at 18 weeks and 5 days of gestational age and prior to laparotomy 10 years ago The patient was diagnosed with intestinal obstruction secondary to an incarcerated hernia with complete occlusive syndrome caused by the cessation of materials and gases, nausea, vomiting and severe abdominal pain. She underwent betamimetics tocolysis throughout the clinical and therapeutic process, before during and after surgery. An obstetric ultrasound done 72 hours after surgery confirms the vitality of the fetus.

Conclusion: Intestinal incarceration by incisional hernia can occur during pregnancy and lead to favorable maternal and neonatal results.

Keywords: Small bowel obstruction; Incarcerated bowel; Incarcerated hernia; Pregnancy

Introduction

Typically, hernias do not present as an acute problem to the obstetrician during pregnancy because the physiologic changes of pregnancy and the gravid uterus are protective against hernia complications [1,2]. Hernias are often asymptomatic; however, they can become incarcerated, or irreducible, necessitating urgent surgical correction. An incarcerated hernia with small bowel obstruction during pregnancy is a rare challenge for the obstetrical and general surgery teams because the need for urgent surgical exploration to prevent bowel ischemia may require concurrent delivery. A strangulated hernia has high mortality for both the patient and her fetus [3,4]. This clinical case that we report required a frank and coordinated collaboration between the gynecological surgery team and that of general visceral surgery, which allowed us to skip this patient and her pregnancy.

Case Report

A 31-year-old woman gravida 3-para 2 with a history of laparotomy 10 years ago not documented carrying an 18 week and 5 day pregnancy and received in an occlusive syndrome table intense abdominal pain, nausea and postprandial vomiting.

The examination of the patient was significant for a slightly tender irreducible mass 8 pounds 8 cm lower than her navel; Murphy's sign was missing. The uterus was enlarged but no sensitivity was objectified. There was no skin change on the mass. The patient was afebrile with a white blood cell number of 12.6 and normal electrolytes. The hemogobin level was 12 g/dL. The monitoring of the fetal heart rate was reassuring. There was no uterine contraction or sign for a threat of abortion.

The patient had been examined by the general surgery team, which had concluded that there was a surgical emergency in front of a ventral hernia probably secondary to the mid-umbilical laparotomy 10 years ago. The patient is unable to provide more information regarding this surgical procedure. The patient postponed the recommended surgical repair and then became pregnant. The patient was asymptomatic before and during pregnancy, before her current presentation.

Her obstetric history reveals two vaginal deliveries at term. She never had a Cesarean.

The patient was admitted for management of her bowel obstruction and incarcerated hernia. The fetal tests were reassuring. A multidisciplinary meeting with obstetricians and general surgeons weighed the risks and benefits of immediate

surgical exploration against the risk of late abortion. Betamimetics tocolysis before, during and after surgery was decided. The size of the incisional hernia was 6 cm, which put the pregnancy at risk and increased the risk of abortion. But in front of the symptomatic intestinal obstruction with intense abdominal pain, surgery was necessary.

The patient was closely monitored for any signs of intestinal strangulation or clinical changes requiring immediate surgical exploration. A nasogastric tube was placed. Serial abdominal examinations by obstetric and general surgery teams were stable. A pelvic ultrasound done in the post-operative finds a normal progressive pregnancy.

The patient underwent hernial repair after an anesthetic visit and a full exploration. The general surgery team reopened the anterior vertical skin incision and the hernial sac was opened with careful dissection to avoid injury to the incarcerated bowel. The hernia bag was large, measuring 25 × 20 × 10 cm and contained a well perfused, non-necrosed intestine and an omentum **(Figure 1).** There was an indentation in the loop of the small intestine at its point of contact against the fascial border with proximal distension and distal decompression; however, the bowel was well perfused everywhere and bowel resection was not necessary.

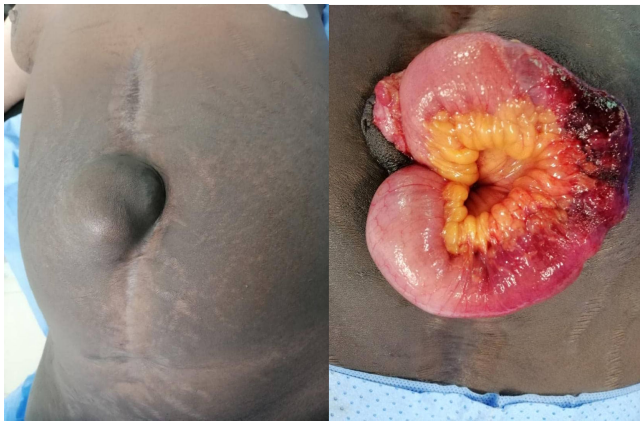

Figure 1: Incarcerated hernia.

The general surgeons removed the hernial sac and repaired the fascial defect. The skin was closed without difficulty and our patient was put on antibiotics as part of a prophylaxis. She also had tocolysis throughout the procedure and even 10 hours before the surgery. Postoperative was simple and the pregnancy continued to progress normally.

The patient returned 4 weeks later for her post-operative appointment and there was complete healing of the wound. Pelvic ultrasound done confirms the evolution of the pregnancy.

Discussion

Complications of hernia during pregnancy are rare. When they do occur, they require rapid diagnosis and early surgery, as well as close collaboration between obstetrics and general surgery teams to minimize maternal and fetal morbidity. This case highlights a rare and severe presentation of intestinal obstruction by incisional hernia during the second trimester of pregnancy, which resulted in a positive outcome for the patient and the infant.

The incidence of intestinal obstruction during pregnancy caused by an incarcerated hernia is estimated to be approximately 1 in 50,000 [3]. The majority of intestinal obstruction during pregnancy is caused by adhesions or volvules caused by enlargement of the uterus and shifting relationships between the intra-abdominal viscera [2-5]. However, the pregnant uterus during the third trimester protects against incarcerated hernias and subsequent intestinal obstructions, because enlargement of the uterus keeps the intestine away from the hernia, preventing it from being trapped [1,2]. In addition, an increase in intra-abdominal pressure during pregnancy leads to an increase in the fascial defect, which makes intestinal incarceration less likely [1].

An incarcerated hernia with intestinal obstruction during pregnancy is an obstetric and surgical emergency due to the risk of intestinal ischemia leading to maternal and fetal mortality. A series of 66 pregnant patients with intestinal obstruction found a maternal mortality rate of 6% and a fetal mortality rate of 26% [3]. The ischemic bowel can lead to electrolyte abnormalities, dehydration, lactic acidosis and skin changes during hernia [4]. This patient had no overt signs of intestinal strangulation; her lactic acid and electrolyte levels were normal and her white blood cell count was within the physiological range of pregnancy. Her urine flow remained sufficient.

Any complication of pregnancy requires taking into account optimal management of maternal and fetal well-being, which often requires a compromise, especially in the case of premature pregnancy.

The literature recommends timely surgical exploration of incarcerated hernias with obstruction of the small intestine, whether the patient is pregnant or not [3,5]. The exact duration between the onset of symptoms and bowel strangulation is unknown. Perdue's study revealed that the median time between onset of symptoms and admission was 48 h with an additional average time of 24 to 48 h until laparotomy [3]. Another study on obstruction of the small intestine during pregnancy found that the time from admission to laparotomy was between 1 and 12 days with 3 fetal deaths and no maternal deaths. Fetal deaths occurred no earlier than 6 days after admission [6]. In this study, there was an intestinal resection (13%) for the necrotic bowel. Obviously, any delay in patients with signs of bowel strangulation contributes greatly to maternal and fetal mortality. However, administration of betamethasone to patients with third trimester pregnancies of less than 34 weeks of pregnancy is necessary.

The diagnosis was made quickly and a timely plan was established for surgery. After physical examination and laboratory evaluation, the patient was clinically stable with no obvious sign of intestinal ischemia.

This article is available from: 10.36648/2471-8041.6.2.141

Conclusion

Despite the low incidence of incarcerated hernias with intestinal obstruction, an obstetrician must be attentive to this presentation in a pregnant patient with a history of surgery or with a known incisional hernia in order to effectively treat the maternal and fetal condition with a multidisciplinary approach.

References

1. Barber HRK, Graber EA (1974) Hernias in pregnancy. In: Barber H, Graber E (Eds) Surgical disease in pregnancy. WB Saunders, Philadelphia, USA. 2: 165-167.
2. Beck W (1974) Intestinal obstruction in pregnancy. Obstet Gynecol 43: 374-378.
3. Perdue P, Johnson H, Stavord P (1992) Intestinal obstruction complicating pregnancy. Am J Surg 164:384-388.
4. Connolly M, Unti J, Nora P (1995) Bowel obstruction in pregnancy. Surg Clin North Am 75:101-113.
5. Parangi S, Levine D, Henry A, Isakovich N, Pories S (2007) Surgical gastrointestinal disorders during pregnancy. Am J Surg 193: 223-232.
6. Meyerson S, Holtz T, Ehrinpreis M, Dhar R (1995) Small bowel obstruction in pregnancy. Am J Gastroenterol 90: 299-301.