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Case Report

Gravid uterus in post caesarean incisional hernia: a rare occurrence

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ABSTRACT

Incisional hernia following section caesarean is a not so uncommon a complication following sepsis in the postoperative period. An ever rising primary caesarean rates in many developed countries like USA and emerging economies like China is leading to rising trend of incisional hernia following c-section. The contents of hernial sac in these cases are usually small gut loops or omentum. Only about a dozen cases having gravid uterus as hernial content have been recorded in literature. Paucity of cases has meant that there are no established guidelines for its management, which is totally individualized. We report here a very rare case of protrusion of gravid uterus in post caesarean incisional ventral hernia and its successful management resulting in delivery of a healthy baby.

Keywords: Incisional hernia, Gravid uterus, Lower segment caesarean section

INTRODUCTION

An incisional hernia results from an incompletely healed surgical wound. It is usually seen as an abdominal wall defect at the site of previous incision following breakdown in the continuity of the fascia closure.[1] Lower Segment Caesarean Section (LSCS) is one of the reported causes leading to incisional hernia that may be clinically visible months or years after index surgery.

These incisional ventral hernias may very rarely contain gravid uterus and may be associated with complications like incarceration, burst abdomen and strangulation.[2,3] Diagnosis is based on clinical and radiological features. The management requires meticulous planning and individualized handling so as to achieve favourable outcome. Herein, we report a case of 30 week 3rd gravida woman with incisional hernia containing gravid uterus. Brief review of literature is also undertaken.

CASE REPORT

A young third gravida woman at 30 weeks of gestation was referred to us for ultrasound Doppler and MRI evaluation. The patient had a history of dilatation and curettage for missed abortion 3 years back and Lower Segment Caesarean Section (LSCS) 14 months back. She had developed wound sepsis post LSCS, which was treated with antibiotics.

On examination, patient had a large pendulous abdominal bulge with excoriation and ulceration of overlying skin (Figure 1). Haemogram and other biochemical parameters revealed mild anaemia.

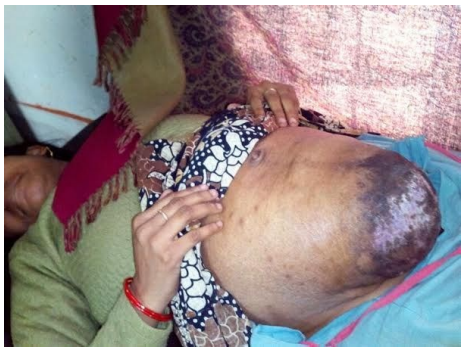

Figure 1: Showing gravid patient having incisional ventral hernia with discolouration, excoriation and ulceration of skin.

Ultrasound showed a single live intrauterine fetus of 30 weeks gestation in longitudinal lie with adequate liqour. The gravid uterus along with placenta were seen to herniate through the ventral incisional defect

Further evaluation by Magnetic Resonance Imaging (MRI) revealed a large defect through the previous LSCS incision site through which gravid uterus was seen herniating. Placenta was located on the floor of the hernial sac (Figure 2). The hernia was irreducible. Patient was initially managed conservatively. At 34 weeks gestation patient developed spotting and a healthy live fetus was delivered by elective caesarean section under ample tertiary care settings. Simultaneous repair of the incisional hernia by Smead Jones repair was also performed. Post-operative MRI of the patient showed complete reduction of the hernia.

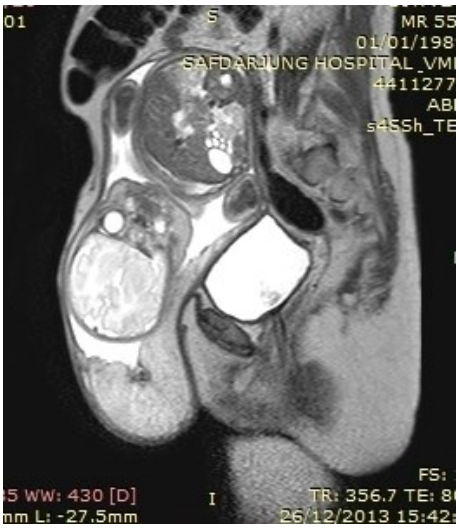

Figure 2: Sagittal MRI T2 weighted image showing the contents of the incisional hernia as gravid uterus.

DISCUSSION

Pregnancy is a very delicate state in a woman's reproductive life, hence any complication occurring during this needs be dealt with caution and utmost care since it deals with the life of expectant mother and the unborn child. Incisional hernia occurring during pregnancy is not only a rare clinical entity but also an extremely challenging situation for the team of doctors attending her.

In the present case, through the previous LSCS scar, a large irreducible incisional hernia was seen in the anterior abdominal wall region of a 30 weeks, gravida 3, woman, the contents of which was gravid uterus.

Increasing rate of caesarean sections in the present day scenario is a well-documented fact. Incidence of caesarean section which was 4.5% in 1965 in USA has gone upto 32.8% in 2012.[4] The recommended threshold of caesarean section by WHO is 15% only.[5] The caesarean section rate in Asia, particularly China has risen much more and has reached epidemic proportions of 46%, with Vietnam and Thailand close behind at 36% and 34% respectively. India has much more reasonable caesarean rate of 18%.[6]

Post-operative incisional hernias following Caesarean sections are a common occurrence. Various studies have reported it to be in range of 3.1% to 5.6% of women who have had caesarean section.[7-10] Incidence is significantly higher in patients with multiple caesarean sections than in those patients with single caesarean.[11] Risk of incisional hernia following midline vertical incision is much higher than in transverse Pfannensteil incision or Joel Cohen incision.[10]

Diagnosis of incisional hernia is made within 12 months of index surgery in half of patients while another 30% are diagnosed in second and third year after caesarean section.[12]

Occurrence of incisional hernia is likely in presence of predisposing factors such as poor surgical suture technique especially with 'absorbable catgut'. Interrupted fascial suturing is more likely to give way and result in incisional hernia. Presence of obesity, sepsis, diabetes, anaemia, poor nutritional status, smoking and chronic cough are other demographic factors that increase risk of incisional hernia.

Despite improvements in fascia closure techniques and improved suture material (Slower/non absorbable sutures) along with more effective antibiotics coverage to control sepsis, the incidence of incisional hernia has not shown significant fall as the LSCS rates have gone up markedly.

The contents of ventral incisional hernia are usually small bowel loops or omentum. Rarely has it been reported to be gravid uterus as in the present case. Less than 20 such cases have been reported till date in the medical literature of which less than a dozen are post LSCS, others being in umblical herniae. The uncommon incidence of gravid uterus herniating through the incisional defect is explained by the fact that fascial incisional defect is placed high in the ventral wall and usually gravid uterus has already achieved a size large enough that is unable to protrude through the defect.[13]

The discolouration, excoriation and ulceration noticed in all the cases of gravid uterus herniation at the apex of pendulous herniation is result of marked ischaemia of the skin and subcutaneous tissue. This results from stretching of skin aided by acute angulation of arteries supplying the tip of hernia.

'A case of hernia of the gravid uterus in incisional hernia' by Arthur N. Holmes dated April 1906 is the first reported case and makes for an interesting reading.[14]

Herniation of gravid uterus in incisional hernia is a very rare but serious obstetric problem that has very high

potential of maternal and foetal morbidity and mortality. This condition can develop complications such as abortion, accidental haemorrhage, IUGR or even rupture of lower uterine segment during labour. Some of the specific complications of this condition are incarceration, strangulation, excoriation and ulceration of overlying skin and bleeding therefrom.

Reported incidence of incarceration is about 53% and uterus is irreducible with or without any other symptoms. If it progresses to strangulation, severe abdominal pain, vomiting and even shock can set in.

Recurrence of herniation of gravid uterus in subsequent pregnancies has been reported in one patient where 3 consecutive pregnancies were managed conservatively successfully with help of abdominal binder, but 4th pregnancy was complicated - incarceration and strangulation resulting in LSCS.[2]

Absence of consensus in optimal treatment due to extreme paucity of reported cases, poses a dilemma regarding management.

The management of incisional ventral hernia depends upon its stage. If unincarcerated and still reducible manual reduction of hernia with use of abdominal binder may be recommended. The success of this procedure is however variable. Incase it is incarcerated or strangulated; the surgical operative repair is desirable. A continuous sutural repair or mesh repair of the primary hernia may be employed. The surgical intervention involves significant risk of anaesthesia during pregnancy.

Additionally enlarged uterus may make herniorrhaphy procedure difficult and unsustainable. Use of nonabsorbable mesh placed across incisional hernia is routinely employed in current day era. Hernia recurrence is an important complication even with mesh repair (24%) although less than in cases of sutural repair (43%).[15]

If strangulated at or near term, early hospitalization along with elective caesarian section is recommended.

In conclusion the management of these patients needs to be tailored to the individualized requirement depending on severity of complication and the gestational age at the time of presentation. Ultrasound and MRI are easily available and noninvasive methods which assist in exact evaluation of the condition of fetus and maternal abdominal wall status to plan course of management.

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REFERENCES

1. Sahtora TA, Roslyn JS. Incisional hernia. Surg Clin North Am. 1993;73:557-70.
2. Boys CE. Strangulated hernia containing pregnant uterus at term. Am J Obstet Gynecol. 1945;50:450-2.
3. Wolfe WR, Egley CC, Saad EJ, Cusack T. Prefascial marsupialization of the pregnant uterus. Obstet Gynecol. 1988;71:1021-3.
4. Joyce A, Martin, Brady E, Hamilton, Michelle JK. Osterman, Sally C. Curtin, et al. Births: final data for 2012. In: Joyce A, Martin, Brady E, Hamilton, Michelle JK. Osterman, Sally C. Curtin, et al., eds. Division of Vital Statistics. US: Centers for Disease Control and Prevention; 2012.
5. World Health Organization. Appropriate technology for birth. Lancet. 1985;2(8452):436-7.
6. World Health Organization. WHO core health indicators. Statistical information system, 2013. Available at: http://apps.who.int/whosis/database/core/core_select.cfm
7. Sahu L, Bupathy A. Evisceration of pregnant uterus through the incisional hernia site. J Obstet Gynecol Res. 2006;32:338-40.
8. Oscar Agüero. Eventraciones poscesárea. Rev Obstet Ginecol Venez. Caracas. 2005 Sep;65:119-22.
9. Agbakwuru EA, Olabanji JK, Alatise OI, Okwerekwu RO, Esimai OA. Incisional hernia in women: predisposing factors and management where mesh is not readily available. Libyan J Med. 2009;4:84-9.
10. Dahamsheh Salim Hasan, Wasfi M. Salayta. Incisional hernia of elective midline caesarean section: incidence and risk factors. Ibnosina J Med BS. 2011;3(6):205-10.
11. Mohammad Ali Ajlouni. the incidence and risk factors of incisional hernia in post-caesarean sections. Middle East J Med. 2013;6:9-12.
12. Yahchouchy-Chouillard E, Aura T, Picone O, Wtienne JC, Fingerhut A. Incisional hernias. I. Related risk factors. Dig Surg. 2003;20:3-9.
13. Banerjee N, Deka D, Sinha A, Prasrad R, Takkar D. Gravid uterus in an incisional hernia. J Obstet Gynecol Res. 2001;27:77-9.
14. Arthur N. Holmes Case of hernia of the gravid uterus transactions of the royal academy of medicine in Ireland , 1906;24(1):312-4.
15. Luijendijk RW, Hop WC, van den Tol MP, de Lange DC, Braaksma MM, IJzermans JN, et al. A comparison of suture repair with mesh repair for incisional hernia. N Engl J Med. 2000;343:392-8.

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