CASE REPORT

A rare case of pregnant woman with intestinal obstruction

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Abstract

Small bowel obstruction is a common surgical emergency due to mechanical blockage of the bowel. Though it can be caused by varied pathology, the leading cause in the developed world is intra-abdominal adhesions. We present a rare case of small bowel obstruction at 5 months of pregnancy who presented with acute pain in abdomen and vomiting, and responded to laparoscopic adhesiolysis.

Keywords: Pregnancy, Laparoscopic adhesiolysis, Small bowel obstruction, Intestinal obstruction, Intravenous antibiotics, Intra-abdominal adhesions

Introduction

The most frequent non-obstetric emergencies which can complicate pregnancy are appendicitis, cholecystitis, and complicated adnexal masses (rupture or torsion). Laparoscopic cholecystectomy is the gold standard in the treatment of gallstones. It has proved to be an effective and safe procedure both in elective and emergency conditions [1].

Laparoscopy has become increasingly popular in recent years for treating a variety of surgical disorders. It is considered safe and effective during pregnancy, with similar results to open surgery [2].

Small bowel obstruction is a surgical emergency due to mechanical blockage of the bowel. Though it can be caused by many pathological processes, the most common cause is intra-abdominal adhesions seen post surgeries. Incarcerated hernias are the second most common etiology. Other common etiologies include malignancy, inflammatory bowel disease (Crohn's disease), stool impaction, foreign bodies, and volvulus. The prevalence of small bowel obstruction is approximately 100 - 500 per 1,00,000. Intestinal obstruction can happen in 5% women without any prior abdominal surgery [3].

We present a rare case of a pregnant woman with 5 months of amenorrhoea with small bowel obstruction who presented with complaints of abdominal pain and vomiting, and responded to laparoscopic adhesiolysis.

Case Report

A 27-year-old primigravida presented at 20 weeks 6 days of gestation with complaints of pain in abdomen since 1 month and excessive bilious vomiting since 15 days. Due to persistence of symptoms despite conservative management, patient was referred to a tertiary care centre for further management. At the time of admission, patient had complaints of pain in abdomen and excessive bilious vomiting since 15 days associated with nausea, decreased appetite and constipation. On admission, a pulse rate of 90 bpm was noted with a blood pressure of 110/82 mm of Hg. The cardiovascular system and respiratory system appeared to be normal. She had a past history of abdominal tuberculosis 3 years back and was managed with a six-month course of medications.

Obstetric examination revealed uterus corresponding to 22 weeks size with Foetal Heart Rate (FHR) of 150 bpm on Ultrasonography (USG). Routine laboratory investigations were done. The patient's anomaly scan done at 20 weeks 1 day period of gestation was noted and the decision to repeat USG once the patient stabilized was made. The patient was catheterized and a nasogastric tube was inserted. Dilated bowel loops suggestive of small bowel obstruction was noted on USG abdomen and pelvis. The decision to take the patient for laparoscopic surgery was made after confirming foetal cardiac activity on USG with associated risks explained. Pre-operatively progesterone was given to prevent the possibility of preterm labour. Intra-operatively, adhesions were noted between the jejuno-jejunal loops and laparoscopic adhesiolysis was done. The patient was shifted to post-operative recovery and started on intra-venous (IV) antibiotics. Patient was started on oral feeds by post-operative day- 2 and discharged on post-operative day- 4 after confirming the foetal growth on USG.

Follow up

Patient was reviewed in out-patient department at 24 weeks period of gestation and transabdominal scan was done to determine the foetal well-being, which was suggestive of normal growth and normal liquor with no gross anomalies. Patient was advised to continue iron and calcium supplementation and to review after 15 days.At a gestational age of 38 weeks 4 days, patient delivered a healthy male baby of 2.6 kg vaginally and the mother as well as the baby were discharged on postnatal day 4.

Discussion

Intestinal obstruction happens to be one of the commonest causes of acute abdominal pain worldwide. It accounts for 5% of emergency admissions. Its etiology varies from patient to patient in different country settings. The frequency of patients experiencing intestinal obstruction from gut volvulus and strangulated hernias is high in under developed and developing parts of the world. A changing trend has been noted that intra-abdominal adhesions are now the most common cause of small bowel obstruction [4-5]. The management of cases of small bowel obstruction includes IV fluids, bowel rest with nil per oral, and, sometimes, bowel decompression through a nasogastric tube and anti-emetics to stabilize the patient followed by surgery [6-7].

There are no randomized trials comparing laparoscopic approach with open surgery during pregnancy. However, most reviews report equally satisfactory outcomes. The most frequently performed laparoscopic procedures in pregnancy are cholecystectomy, adnexal surgery, and appendectomy. Initially, 26 to 28 weeks was recommended as the upper gestational-age limit, but as experience has continued to accrue, many now describe laparoscopic surgeries being performed in the third trimester. In one report of 59 pregnant women undergoing laparoscopic cholecystectomy or appendectomy, a third were > 26 weeks pregnant (Rollins, 2004). There were no serious adverse sequelae to these procedures [8].

Pregnancy is mired within a physiologic circumstance that promotes the dysfunction of the biliary and gastrointestinal systems, while making the precise diagnosis of such conditions more difficult than if the patient was not masked by the pregnant state. Pregnancy induces a variety of mechanical, hormonal, and chemical alterations that may confuse and mislead even the most experienced clinician. There is mounting evidence that appendicitis, gallbladder disease and symptomatic adnexal cysts can be safely managed laparoscopically in

pregnancy. Only adequately trained laparoscopic surgeons can carry out these procedures and adequate peri-operative preparations are paramount [9-10]. In pregnancy, special care has to be taken to safeguard the foetus and to prevent onset of preterm labour following surgery.

Conclusion

Conservative management of small bowel obstruction in pregnant women is feasible if the patient is clinically stable, after ruling out bowel ischaemia and closed-loop obstruction.

High clinical suspicion of small bowel obstruction is required in women with a history of abdominal surgery. Surgical intervention is necessary in the event of failure of conservative therapy or clinical deterioration.Laparoscopic management of small bowel obstruction in pregnancy is safe and feasible.Accurate diagnosis, a multidisciplinary approach and timely action helps in preventing life-threatening risks to mother and the foetus as evident in our case.

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