

Omental Evisceration after Cesarean Section: Safety of Peritoneal Nonclosure Technique

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Abstract: A case of big oozing lump of unknown origin through a healed cesarean section stitchline, completely asymptomatic at presentation, origin discovered as omentum on exploratory laparotomy came on 10th postoperative day of an uneventful emergency surgery. This rare and silent presentation highlights the need to reconsider the practice of peritoneal nonclosure during cesarean section that has been adopted widely in recent past. It also calls for meticulous dissection and repair of rectus sheath during laparotomy

1. Introduction

One of the most significant changes that have been adopted in obstetric practices over the past few decades is undoubtedly the increasing frequency of Cesarean sections. Women are now four times more likely to have a Cesarean birth than 30 years ago. There is, however, wide variation in the surgical techniques used in Cesarean section and the quality of evidence to support the technique used. A rare complication often compels us to rethink and question the conventional surgical practices used. We hereby present a case of omental prolapse, which questions the safety of non-closure of peritoneum at Cesarean sections.

2. Case Report

A 40-year primigravida lady underwent emergency lower segment Cesarean section for breech presentation in labour and meconium stained liquor. Lower segment Caesarean section was done with low transverse abdominal incision under spinal anaesthesia. Uterus was sutured by Misgav Ladach technique was used, that is, the uterus was closed in single continuous interlocking stitch and both visceral and parietal peritoneum were left open as per conventional practice. The rectus sheath was sutured in a continuous manner with polyglycolic acid suture. Skin was closed with nylon in interrupted mattress sutures. In early postoperative period she developed slight cough. Moreover, she complained of constipation during the first three postoperative days which resolved later. Otherwise the postoperative period was uneventful. Antibiotic prophylaxis was provided with intravenous Ceftriaxone twice daily. Analgesia was provided with intramuscular Diclofenac. She was discharged on fourth postoperative day after change of dressing by the intern with usual follow up advices. She followed on tenth day for the stitch removal. She was completely asymptomatic with normal vitals and no bladder or bowel complaints except for one episode of vomiting on postoperative day 4 after discharge. Local examination revealed a pink polypoidal mass protruding from mid-point of healed cesarean section stitchline with skin attached to the mass on all sides



Figure 1: mass 3cm× 5 cm protruding healed Cesarean section wound.

The mass was painless, felt soft in consistency and bled to touch. There was no associated discharge. It was attached to the deeper intra abdominal structures. The skin was well healed on either side of the mass. Abdomen was soft on palpation with normal bowel sounds.

Ultrasonography of abdomen revealed the mass as omental fat herniation through 1.5 cm defect in abdominal wall. CECT abdomen was done to rule out intra abdominal extension which revealed wide separation of recti and 32*80 mm size defect through which herniation of omental fat covered with skin which represents focal wound dehiscence. Laparotomy was performed the next day. The portion of the omentum was separated and excised. The skin was closed after the parietal peritoneum, and rectus sheath was closed with polyglycolic acid sutures. Perplexed by the silent and interesting presentation of the patient with such a significant size mass, we sought surgeon's opinion and the patient was taken up for exploratory laparotomy.

On opening stitchline, there was a defect in rectus sheath seen through which omentum was herniating [Figure 2] to form an organized mass covered with organized exudative substance, which bled on touch. The portion of omentum was separated and excised followed by parietal peritoneal closure. The anterior abdominal wall was closed in layers. Romovac drain no 14 was kept in the subcutaneous plane.

Patient was discharged on day 7 after stitch removal with a healthy stitch line. Histopathology report confirmed the omentum with necrosed fat covered with granulation tissue.

3. Discussion

Alternative surgical techniques to the traditional surgical approach to Cesarean birth have been reported in recent years.

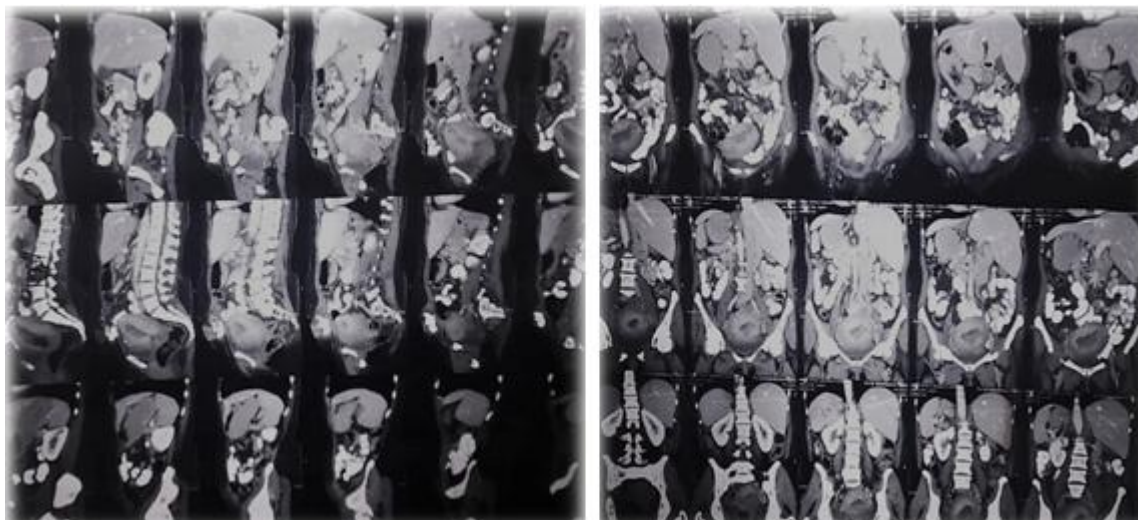


Figure 2: CECT revealing focal wound dehiscence in cesarean scar.

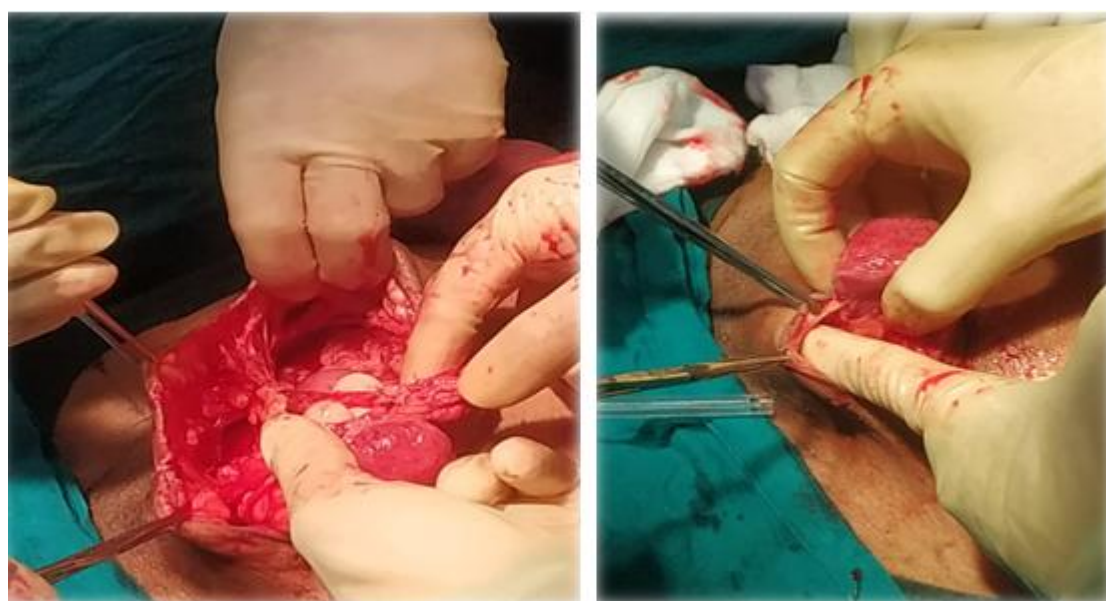


Figure 3: Evisceration of the omentum as revealed at laparotomy.

The Misgav-Ladach technique, developed in Israel, and 2 Case Reports in Obstetrics and Gynecology the Stark technique adopted later involved the single layer uterine closure and non-closure of the visceral and parietal peritoneum.

The Cochrane Database Systematic Review showed that non-closure of the peritoneum reduced operative time. There was less postoperative pain and fever resulting in shorter duration of hospital stay [1]. But the other important outcomes were not adequately assessed, especially adhesions, effect on subsequent pregnancy, childbirth, or other surgery in later life.

Closure of peritoneum restores the anatomy by re approximating the tissues, reduces infection by re-

establishing an anatomical barrier, and reduces wound dehiscence and adhesions. Peritoneal healing is known to occur by migrating mesothelial cells with mesothelial matrix formation within the first five to eight days of surgery. It takes six weeks for the postpartum uterus to involute completely. Hence the postpartum enlarged uterus may act as a disruptive barrier to peritoneal healing if not re approximated by sutures.

Observational studies have suggested that there is more adhesion when peritoneal closure is not done in Cesarean sections. This leads to long-term morbidity like infertility and chronic pelvic pain. There have been a few cases of evisceration of omentum following Cesarean section in the recent past. Omentum was sutured between the edges of fascia recti in one case. Inadvertent injury to anterior rectus

sheath during too much dissection of the same during surgery resulted in omental hernia in another Ruptured rectus sheath suture was the cause in a reported case.

Probable explanation in our case is that during too much dissection of rectus sheath, owing to fibrosis due to previous surgeries, there was an inadvertent injury to the rectus sheath, which was probably left unrepaired, through which

the omentum had protruded. The episode of vomiting leading to increased intra-abdominal pressure possibly became the precipitating factor. This possibly could have been prevented if parietal peritoneum was closed to provide an anatomical barrier.

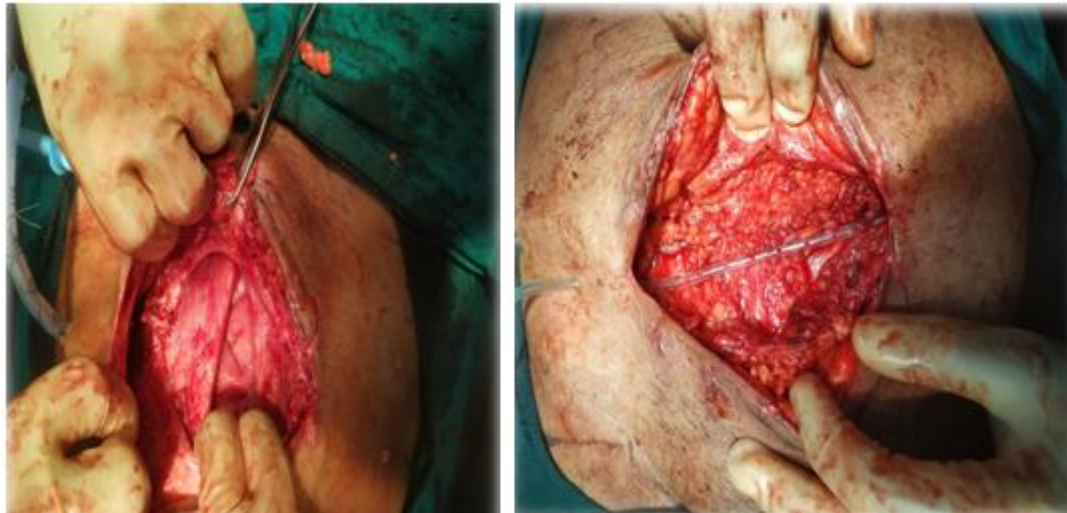


Figure 4: Closure of the peritoneum with b/l recti muscle closure

Prolapse of omentum through a gap in the repaired rectus sheath at the end of the section might have occurred in early postoperative period due to coughing or straining at stool by the patient herself. This was small enough to escape notice of the intern at the hospital who removed the skin sutures.

Rapid growth of the omental mass occurred following discharge of the patient from the hospital to become noticeable. All these cases reaffirm the technique of parietal peritoneal closure and drawing of rectus muscles, which are vertical breaks, so that these sutures close transverse incisions of the abdominal wall with cross sutures, which are very secure.

4. Conclusion

This case was unique and discovered only at the time of stitch removal. The significant size, pinkish smooth surfaced lump with bleeding tendency, arising over such small duration (6 days), at first glance left us completely perplexed about its origin, which was revealed only at exploratory laparotomy and later confirmed histologically.

There are many possible operative techniques of caesarean section but depend largely on the clinical situation and the preference of the surgeon.

Although just by one case we cannot say that the process of reperitonisation is necessary to be practiced in all laparotomies, but it calls for further prospective as well as retrospective studies in cases of hernias in immediate postoperative period to find out the cause and their preventive aspect.

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