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An Obstructed Incisional Hernia: A Rare Case Report

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Abstract: ***Incisional hernias are the most common postoperative complication of incisions during laparotomy and contribute to a significant burden. The aetiology of incisional hernias varies depending on the surgical technique, patient's condition, and surgeon's experience. Many patients present with abdominal swelling and some degree of discomfort, and in an emergency, the presentation is usually as bowel obstruction or strangulation, necessitating immediate exploration. Hernias can be repaired by closing the defect with a non - absorbable suture or using mesh. Amidst the use of invasive techniques and mesh, the rate of recurrence remains high for Incisional hernias, with pain and infection being the most common symptoms. The consequence of Incisional hernia repair is affected by comorbid conditions such as chronic cough, constipation, urethral stricture, benign prostate hyperplasia, ascites, and obesity. We present a case of a 30 - year - old male with an Obstructed Incisional hernia.***

Keywords: obstruction, incisional hernia, irreducible, emergency laparotomy

1. Introduction

Incisional hernia arises from the abdominal wall, which develops at the site of an earlier surgical incision. Midline Incisional hernias are the most common ones. Patients with Incisional hernia is also at risk of incarceration, bowel obstruction, and strangulation. Wound healing issues are estimated to occur in at least 20% of laparotomy cases, with many resulting in an Incisional hernia. At first, the hernia may not be visible. However, it advances in almost all cases, and the patient complains of a bulge. The condition can affect both males and females of all ages.

Incisional hernia has been reported in the aftermath of traumatic abdominal wall injuries. It happens when the abdominal wall does not close on its own properly after surgery, either due to technical factors or due to patient - related factors. Despite major advances in closure techniques of the abdominal wall, the rate of Incisional hernia post - laparotomy can range from 15 to 20%. Despite ongoing studies for the best closure methods to prevent Incisional hernia and the publication of current reports, Incisional hernia continues to be a problem for surgeons.

Incisional hernia causes discomfort as they grow, limiting patients' ability to work and participate in other physical activities. Cosmetic issues may also arise. Overall, a patient's quality of life can be greatly impacted. Incisional hernia complications include pain, bowel obstruction, incarceration, and strangulation, as well as the risk of needing to undergo repeat surgery. Incisional hernias are commonly repaired using open, laparoscopic, and robotic techniques customized according to the patient and hernia characteristics. Incisional hernia repair has also been linked to hernia recurrence rates ranging from 10 to 50%, as well as significant mortality and morbidity. The recurrence rate of hernia remains relatively constant over time as surgeons continue to encounter increasingly remarkable patient factors such as comorbidity, old age, and more obese patients undergoing primary surgery.

2. Case Presentation

A 30 - year - old male presented to the emergency room, with a history of abdominal swelling associated with pain and multiple episodes of vomiting for 1 day. The patient gave a history of emergency exploratory laparotomy (resection and anastomosis) for an accidental abdominal trauma 25 years ago. Still, the exact nature of the procedure and disease could not be ascertained due to the unavailability of documents. The patient gave a history of tobacco chewing. On examination, the patient was vitally stable. On local examination there was an approx.6*4 cm^2 sized well defined, irreducible swelling present just lateral to previous laparotomy scar over right para - umbilical region. Cough impulse was absent, overlying skin appears normal. Swelling became prominent on straight leg raising test. All the hernial orifices found to be normal. On per rectal examination there was soft stool present.

All the blood investigations were within normal range.

Abdominal Xray (Erect) was normal.

An abdominal ultrasound was done and revealed that approx.1.7 cm size defect was present in anterior abdominal wall at RIF region with herniation of mesenteric fat with bowel loop at a time of scan. (Non- Reducible/ Obstructive).

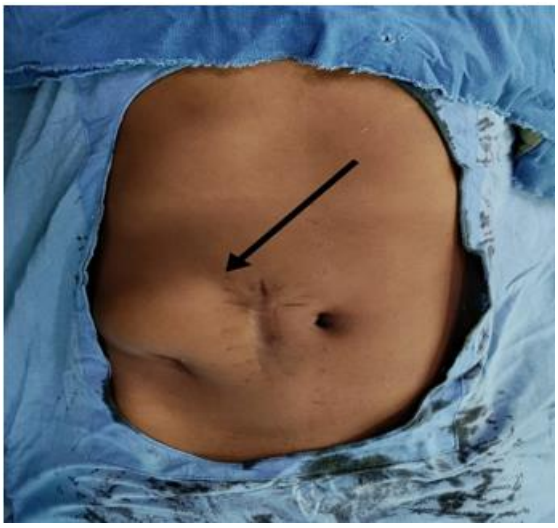

Image 1: Right Side Incision hernia with obstruction

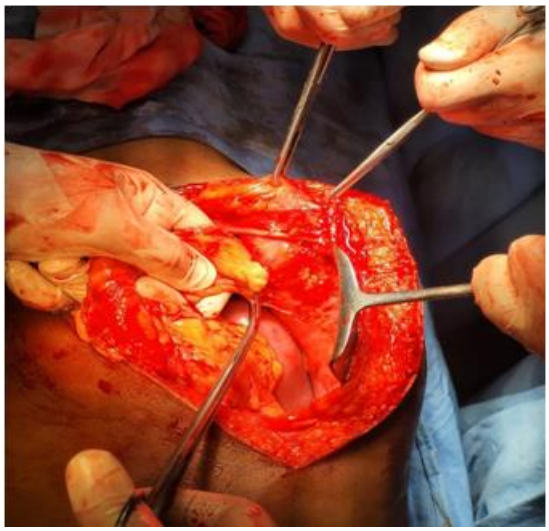

Image 2: Intra - op picture of obstructed Incisional hernia

Emergency exploratory laparotomy was performed via midline vertical laparotomy incision. Omentum was adherent to previous laparotomy wound and adhesiolysis was done. Approx.2 cm gap defect was noted over anterior abdominal wall 5 cm right and lateral to umbilicus. Omentum and Bowels were densely adherent and irreducible. Gap defect was opened and all the contents were reduced. Approx.5 cm segment of small bowel was appears dusky and erythematous.100% Oxygen flow with warm saline pad was kept for 10 min over affected bowel followed by bowel became viable. Gap defect over right side anterior rectus sheath was closed using prolene 1 no. followed by layer closure of abdomen.

3. Discussion and Conclusions

Incisional Hernia is a common complication of open laparotomies and abdominal surgeries and is a source of significant morbidity and mortality in patients, especially those with significant comorbidities. Recurrence rates vary between as high as 49% in cases of open suture repair of Incisional hernia and 10% in cases of open mesh repair. Small bowel obstruction is a known complication of open Incisional hernia repair, possibly due to the presence of adhesions.

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