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DELAYED COLONIC PERFORATION IN A CASE OF LAPAROSCOPIC UMBILICAL HERNIA REPAIR: A RARE CASE

Surgery

KEYWORDS: Colonic perforation, umbilical hernia repair, laparoscopy, tacker induced colonic perforation

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ABSTRACT

Delayed Colonic injury following laparoscopic umbilical hernia repair is one of the rarest complication.[1] We describe here a case of transverse colonic perforation because of mesh taker almost after 4 weeks after the surgery and discharge of the patient from hospital presenting with high grade fever and abdominal pain. The diagnosis was clinched by sonography and contrast CT scan of abdomen.

INTRODUCTION

Bowel injuries occur in 0.13% of all laparoscopic procedures[2] This is probably an underestimate due to retrospective nature of most studies. [3] Laparoscopic repair of umbilical hernia is the most preferred technique over open repair in especially obese patient.[5] Better cosmesis, early recovery, reduced duration of hospitalisation and less morbidity are the reasons for opting laparoscopic repair over open one.[4][6] However is not free of complications. Complications occur, even with the best of surgeons. The purpose of this case report is to create an awareness of morbid, life threatening complication such as colonic perforation that may occur after laparoscopic umbilical hernia repair.[1]

CASE STUDY

A 45 year old female presented with a reducible umbilical swelling for a duration of 4 months with clinical and sonological diagnosis of umbilical hernia with omentum as its content. Pre-surgical evaluation was normal. Patient was hypothyroid on small dose of Thyroid supplementation and obese. No other co morbidities .Standard technique of laparoscopic umbilical hernia repair was followed. At the outset Verres needle was used to create pneumo-peritoneum .Two 5 mm ports in the anterior axillary line; one 12mm optical viewing port in left subcostal region was used to complete the procedure. Procedure was uneventful and ports were withdrawn after the release of pneumo-peritoneum. No intra-abdominal drains were placed.

After steady recovery patient was discharged on third post operative day.Patient was asymptomatic for next three weeks. Patient followed up twice in OPD for dressing and suture removal.

Patient returned on 28th Postoperative day with complaints of bilateral shoulder tip pain, high grade fever and abdominal distension. Investigations revealed high WBC count of 28000 with predominant Polymorphs of 80%. Sonography of abdomen revealed a collection beneath the mesh of 3.7cmx3.2cmx2.1cm. in the peri-umbilical region with a few a-peristaltic bowel loops adherent to the mesh suggestive of localised ileus. Later double contrast CT scan of the abdomen was performed. This revealed.

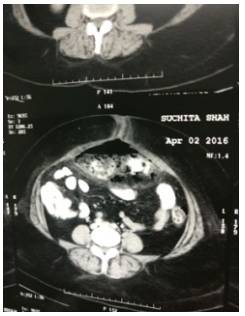

Figure 1 CECT image of the perforated colon with contrast spillage

A large 13cmx12.5cmx6.2cm collection in the umbilical, supraumbilical and infraumbilical regions in the pre peritoneal planes displacing the parietal peritoneum and the mesh away from the abdominal wall. Mid tansverse colon was seen abutting this collection. Orally administered contrast was seen leaking into the collection from mid transeverse colon. Multiple air specks and a large air fluid level was seen in the collection.

Decision for emergency exploratory laparotomy was made. The pre peritoneal space and its contamination was encountered. Peritoneum was opened and intraabdominal fecal contamination and the perforated colonic segment was identified.

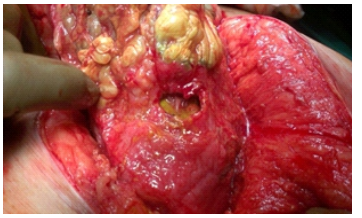

Figure 2 Intra operative image of perforated colonic segment

A large 2cmx2cm perforation was identified in the anterior wall of the transverse colon with highly inflamed and friable margins.At the site of the perforation mesh and one tacker was adherent. The wall of the colon was oedematous and unhealthy for a segment of 4.5cm. This segment was resected and primary end to end anastomosis of the transverse colon was done using braided silk sutures (3-0) and a proximal ileostomy was created in the right iliac fossa.

Patient showed uneventful recovery . Ileostomy was functional by second post operative day. Oral diet was slowly resumed. Early ambulation was encouraged. Patient recovered over a period of 7 days and was discharged with adequate nutrition counselling and regular follow up. Histopathology report of resected colon was foreign body granuloma .

Three months later the patient was admitted again. A colonoscopy was done and the anastomotic site was visualised. There was no narrowing. Scope was passed with ease. Ileostomy was closed with standard technique. . Feeding was started as bowel sounds returned. Patient has recovered and is now doing well. Patient has been following up regularly and bowel functions seem to be normal.

CONCLUSIONS

It has been reported that tacker induced colon perforation is a rare but recognised complication which may present early or, as in our

case, late with myriad of signs and symptoms.

We had inserted 2 ports all in the anterior axillary line; one 12mm optical viewing port in left sub-costal region, one 5mm port at the level of the umbilicus .Considering the histopathology report, it can be commented that foreign body granulomatous inflammation could be a foreign body reaction induced by an irritating tacker to the transverse colon. Other postulated causes of colonic injury are unrecognised thermal or mechanical injury by instruments and or by trochar.[8] Even though we are contemplating the real cause, it is advisable to keep an open mind about this as a potential complication in a seemingly simple surgery.[7]

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