



RICHTERS INCISIONAL HERNIA PRESENTING WITH STRANGULATION – A CASE REPORT

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ABSTRACT Richters hernia is caused by hernia protrusion of a portion of circumference of bowel wall through a defect in abdominal wall. Richters type of hernia has been commonly associated with inguinal and femoral hernia, although its association with incisional hernia is rare. It is more commonly associated with strangulation of bowel. As only part of bowel wall is affected, patient do not have symptoms of intestinal obstruction. This may result in delayed diagnosis. Early surgical intervention may help in uneventful recover. We describe a case of Richters hernia presenting with incisional hernia causing strangulation requiring resection and anastomosis of bowel.

KEYWORDS :

INTRODUCTION:

Richters hernia is caused by hernia protrusion of part of the circumference of bowel wall through a defect in abdominal wall. Richters hernia are commonly seen in inguinal region and femoral canal region. It is uncommon for Richters hernia to be associated with incisional hernia. We describe a case of Richters hernia presenting with incisional hernia causing strangulation requiring resection and anastomosis of bowel.

Case report:

73 yrs old hypertensive, nondiabetic female patient presented with complains of abdominal pain and distention of abdomen since 1 day. She had history of being operated for caesarean section 48 yrs back. She was also operated for umbilical hernia surgery 20 years back.

She gave history of swelling in infraumbilical region which was about 3 x 4 cm size about 1 year back. She started having dull aching pain at the site of swelling since 1 month. Her pain at the site of swelling aggravated to a very severe state since last 12 hours. It was associated with distention of abdomen. She had severe nausea, therefore she did not eat or drink anything for last 12 hours. She had passed stools 12 hours back. She was also passing flatus. On presentation her blood pressure was 172/88 mm of Hg. Pulse was 84/min. Her saturation was 92% on room air with respiratory rate of 20 /min. Her abdominal examination showed distention of abdomen with mild tenderness all over abdomen. There was midline scar of previous surgery. There was 3 x 4 cm swelling in infraumbilical region which was severely tender on palpation. The swelling was not reducible.

She was investigated. Her blood investigation showed, Haemoglobin 12.9 gm/dl, WBC count was 13,400/ml, Total bilirubin 1.2 mg/dl, Direct bilirubin 0.5 mg/dl, SGOT – 40 U/L, SGPT – 24 U/L. Serum electrolyte and PT, PTT and INR showed normal finding. She was taken up for surgery immediately, within 6 hours of presentation to our hospital. Exploratory laparotomy with midline incision was done. Intraoperatively, a loop of ileum was found herniated through a defect which was 2 cm in diameter. The defect was increased in size so as to access peritoneal cavity. On inspection it was found that part of the wall of ileum had become gangrenous. Gangrenous part of the bowel along with a small segment of ileum was excised. Stapled side to side anastomosis of ileum was done. She had uneventful postoperative recovery. She was discharged after suture removal. She was asymptomatic on follow up.

Fabricius Hildanus described Richters hernia in 1598 however it was August Gottlob Richter in 1778 who gave detailed description of hernia and its etiology, after whom the hernia is named. Richters hernia involves only a part of lumen of bowel wall which protrudes out through the defect in abdominal wall. Richters hernia is seen more commonly in inguinal hernia and femoral hernia, and it is comparatively rare in abdominal wall hernia. (1)The important character of the defect is that it should be large enough for part of the

bowel to pass but not too much large – in which case entire bowel can get herniated.

Richters hernia in initial stages is very difficult to diagnose as only a small part of bowel wall is involved. Therefore it remains undiagnosed for long time. However, it becomes symptomatic when the ischemia of bowel sets in because of compression of the bowel wall by margin of hernia defect. This needs the margin of the defect to be very strong because soft and pliable margin will not cause ischemia and will not become symptomatic. Richters hernia is more commonly associated with femoral hernia and obturator hernia because of very tough margin of defect provided by pubic bone.

As Richters hernia involves only part of circumference of bowel wall, a part of the bowel wall is still patent and it helps passage of intestinal content from proximal portion to distal portion. The patients therefore do not have complete intestinal obstruction and they are passing stool and flatus. Even when part of herniated bowel becomes gangrenous patient would be passing flatus and stool. This gives a deceptive clinical picture in which pain in abdomen would be present at the same time patient would not be very toxic and would be passing stool. This may elude a surgeon from correct diagnosis and may result in delaying of the diagnosis.

In our case, the patient was passing stools and flatus, however there was localised tenderness at hernia site in addition to pain in abdomen. This pointed to diagnosis of strangulation of hernia. Early surgical intervention, within 6 hours of presentation, helped in removal of gangrenous portion of bowel which was life saving for patient. Any delay in diagnosis may have led to further complications in elderly patient.

With the advent of laparoscopic surgery through small incisions in abdominal wall, there is advent of small hernias occurring through the small defect. Because the defect size is very small it is very well possible that only a part of bowel wall can herniate through it. J.C. Boughey described few such cases of Richters hernia occurring after laparoscopic surgery. (2) Port site hernia causing small bowel obstruction was described by Wegener et.al. (3)

Femoral canal is small in diameter and is bounded by tough structures around it. Therefore it provides ideal circumstance for Richters hernia to occur as small size of defect allow only part of wall to herniate. Richters hernia occurring in femoral canal has a tendency for strangulation. It can be contributed to its anatomically strong walls. (4) Richters hernia most often involves a lower portion of ileum. (5) However, on rare occasions even stomach can also be involved in Richters hernia. (6) Obturator hernia is another place where defect is very small and anatomical boundary is formed by tough structures. This is also often associated with Richters type of hernia. (7) Sonography can be used for diagnosis of Richters hernia, however it is difficult to diagnose Richters hernia on Sonography

because of small size and only part of the bowel wall is involved in hernia. Michael Middlebrook described sonographic appearance of Richter's hernia. (8)

CONCLUSION –

Richters hernia is a rare form of hernia. It is more commonly associated with strangulation of bowel. As only part of bowel wall is affected, patient do not have symptoms of intestinal obstruction. This may result in delayed diagnosis. Early surgical intervention may help in uneventful recover.



Figure 1 & 2: Gangrenous small Bowel Segment.

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