

## Practique Clinique et Investigation

### Richter's Hernia: A Case Report

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#### ABSTRACT

Richter's hernia or partial enterocele is an uncommon type of strangulated hernia wherein a small portion of the anti-mesenteric wall of the intestine is trapped and strangulates in absence of obstructive symptoms. August Gottlieb Richter first in 1778 depicted Richter's hernia and it normally includes the terminal ileus as the content of the hernia sac. It is a diagnostic dilemma and high index of suspicion is the key to early and accurate diagnosis and surgical management for this condition. This case report presents a patient with persistent and severe abdominal pain and an irreducible, tender hernia in the infra-umbilical region with overlying skin erythematous without any obstructive symptoms. Imaging studies in the form of Ultrasonography and surgical management in the form of resection anastomosis of the strangulated ileal loop bearing a perforation were offered and the patient was discharged from the hospital without any complications.

**Keywords:** *Richter's hernia; Terminal ileus; Skin erythematous*

#### INTRODUCTION

Richter's hernia or partial enterocele is an uncommon type of strangulated hernia wherein a small portion of the anti-mesenteric wall of the intestine is trapped and strangulates in absence of obstructive symptoms. It is deceptive because strangulation may occur early; frequently, in the absence of obstructive symptoms and comprises 10% of strangulated hernias.

#### CASE REPORT

A 65-year-old lady presented with lower abdominal pain, fever and vomiting and an irreducible incisional hernia of 2 days duration. She had undergone total abdominal hysterectomy 3 years ago and had noticed hernia through this surgical scar for the last 6 months. Per abdominal examination revealed an irreducible, tender hernia of approximately 6 cm × 8 cm in the infra-umbilical region with overlying skin erythematous. She was febrile and had tachycardia. Haematological and biochemical investigations were essentially normal. Ultrasonography of abdomen revealed an abdominal wall defect in the left paramedian region of approximately 2.8 cm × 2.8 cm through which small bowel loops protruded. Peristalsis in the entangled loops was present and there was evidence of vascularity of the bowel wall. Exploratory laparotomy was done using a midline infra-umbilical incision and per-operative findings over the previous surgical scar revealed a large sac with omentum covering a strangulated loop of proximal ileum bearing a perforation 2 cm × 2 cm with 20 ml of pus in the sac (Figure 1). Sac was opened, pus evacuated, contents reduced, resection of perforation bearing strangulated bowel loop done (Figure 2) and end to end anastomosis of the small bowel performed in 2 layers with absorbable sutures (Figure 3 & Figure

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4). Intra-peritoneal drains were placed in the pelvis and left paracolic gutter. She was given oral sips on the 5<sup>th</sup> post-operative day and soft diet on 8<sup>th</sup> post-operative day. She developed surgical site infection for which serial dressings were done followed by secondary suturing. She was followed up for 1 month post-operatively and remained asymptomatic.



**Figure 1:** Strangulated bowel loop.



**Figure 2:** Resection of the perforation bearing bowel loop.



**Figure 3:** End to end anastomosis.



**Figure 4:** End to end anastomosis.

## DISCUSSION

Richter's hernia is portrayed by the projection of part of perimeter of anti-mesenteric intestinal wall through a rigid abdominal wall defect [1]. August Gottlieb Richter first in 1778 depicted Richter's hernia subsequently it has been named after him [2]. It is an uncommon kind of hernia with the femoral ring being the most common site of development (71%-88%). Other encountered locations are the inguinal canal (23%-24%) and the abdominal wall (4%-6%), usually after abdominal incisions [3,4]. Richter's hernia normally includes the terminal ileus, yet different parts of the gastrointestinal tract can likewise move towards becoming incarcerated [4] as found in our situation where proximal ileum was included. Around 6% of all strangulated hernias are Richter's hernia [1]. Clinical presentation can be dark and deluding, with unclear and vague abdominal pain, nausea and vomiting and is characterized by the nonattendance of highlights of obstruction regardless of strangulation as the entrail lumen stays patent. Manual reduction of Richter's hernia isn't prescribed as it could prompt the presentation of necrotic gut inside the peritoneal cavity. A compromised bowel wall can lead to intra-abdominal bowel perforation, peritonitis, and fast clinical disintegration.

Presentation can be as an acute abdomen with absence of typical obstructive ileus symptoms as seen in our patient. Cases of intermittent progressive ileus have also been reported as the incarcerated wall can lead to incomplete gastrointestinal obstruction [1]. Physical examination can be inconclusive with the nearness of an erythematous hernia being the most explicit finding. Clinicians must presume Richter's hernia in patients with an irreducible swelling in a past surgical scar.

There are different radiological modalities, with Ultrasound studies and CT scan assuming a noteworthy job in diagnosing this condition [5]. Ultrasonography can recognize the incarcerated wall and look at its blood perfusion and conceivable oedema with the contiguous ordinary gut loop. CT scan can demonstrate the substance of the hernial sac, in this manner helping in the preoperative administration and differential diagnosis from abdominal mass or abscess, albeit because of the apparent emergency of this condition, an exact conclusion is frequently made intraoperatively [6,7].

Richter's hernia requires earnest surgical management because of its potential intricacies. The analysis is commonly postponed on the grounds that the clinical picture emulates gastroenteritis and there are no features of bowel obstruction thus causing strangulation of the bowel wall [8]. This can prompt gangrene and bowel perforation, further bringing about peritonitis or the creation of a subcutaneous abscess as was seen in our case [3,4]. Resection of the gangrenous part of the bowel is suggested if it comprises more than 50% of the circumference bowel wall or extends to the mesenteric part [3].

## CONCLUSION

Albeit an uncommon ailment, clinicians must have a high level of doubt for the likelihood of a Richter's hernia in patients giving harmless gastrointestinal manifestations synchronous with an erythematous hernia. The nearness of a detained incisional hernia situated in a past careful scar further raises doubt, while diagnosis can be set with Ultrasonography or CT scan. High level of doubt, early analysis, sufficient and early careful surgical management is essential to lessen complications and mortality in this condition.

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