Richters Hernia-A Rare Phenomenon in Surgery

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Abstract: Richter hernia is the protrusion and/or strangulation of only part of the circumference of the intestine's antimesenteric border through a rigid small defect of the abdominal wall. The first case was reported in 1606 by FabriciusHildanus. It constitutes 10% of all strangulated hernias. A 59 years old male presented with vague abdominal symptoms to a physician and then to a surgeon with a strangulated groin hernia which came out to be of Richters variety. Delayed presentation and diagnosis led to the gangrene of the entrapped wall of the ileum. The sac was explored through the pre peritoneal approach followed by laparotomy and resection of the affected bowel. This case is reported because of its rarity in surgical practice. High index of suspicion is required to make a diagnosis.

Key Words: Hernia; gangrene; sepsis; Richter's

I. Case Report:

A 59 year old male admitted in medical wards with vague abdominal pain fever and vomiting for preceding 2 days. Provisional diagnosis of Viral Fever was made. The abdomen was soft, not distended without any palpable lump or peritoneal signs. Patient was treated for acute viral Gastritis. In view of constipation, sub-acute intestinal obstruction was suspected. The abdomen continued to remain soft and non-distended with subsequent normal bowel movement. The detailed clinical evaluation revealed a diffuse right inguinal swelling which was firm, tender and irreducible. This swelling was initially ignored by the patient as a long standing hernia and did not report to the clinician. There were signs of local inflammation. Ultrasound showed right inguinal strangulated hernia with bowel as content. Right groin was explored and infected fluid around the ischemic sac wall and inguinal canal removed [Figure 1]. Lower Midline Laparotomy done. One litre of foul smelling fluid in the sac & peritoneal cavity removed. Resection of the gangrenous segment with end-to-end anastomosis was done [Figure 2]. Post-operative recovery uneventful.

II. Discussion:

A Richter's hernia is discrete from other types of abdominal hernias in that only one intestinal wall protrudes through the defect, such that the lumen of the intestine is incompletely contained in the defect, while the rest remains in the peritoneal cavity [1]. A Richter's hernia can result in strangulation and necrosis in the absence of intestinal obstruction [2]. Richter's hernia has also been noted in Laparoscopic port-sites, usually when the fascia is not closed for ports larger than 10mm. A high index of suspicion is required in the post-operative period as this sinister problem can closely mimic more benign complications like port-site haematomas [3, 4]. Treatment is resection and anastomosis. Mortality increases with delay in surgical intervention. It is a relatively rare but dangerous type of hernia. While rare, the condition is not so rare as to be merely a curiosity. For such a hernia to form, there are two key pre-requisites: first of all, the hernia orifice must
be large enough to ensnare the bowel wall, but too small to contain an entire loop of intestine; second, the margin of the hernia ring must be firm (which predisposes to strangulation) [5, 6]. If left untreated, the affected bowel segment becomes ischemic and finally gangrenous; in this respect, it should be noted that a higher number of patients with Richter's hernia develop gangrene, as compared to 'ordinary' strangulated hernias. One reason for this might be because it is the anti-mesenteric border of the intestine which is usually involved (which contains a predominance of terminal arterioles); in addition, as the lumen of the gut usually remains open, intestinal obstruction is often absent, resulting in delayed diagnosis or even misdiagnosis. Overall, gangrene has been found as early as the third day of strangulation. Richter's hernia often initially presents with innocuous symptoms and sparse clinical findings, including vague abdominal pain and slight malaise. While nausea and vomiting may be present, these are generally less severe than that seen in 'classical' strangulated hernias. The most constant physical finding is tenderness or swelling over the hernia orifice; if local gangrene of the intestinal wall occurs the overlying skin may be inflamed, potentially resulting in misdiagnosis as a local abscess. Where Richter's hernia is suspected, urgent surgery should be the mainstay of treatment[7,8]. Conversely, natural healing may occur in the form of drainage through an entero cutaneous fistula; under certain conditions, the fistula may even spontaneously close.

Note that Richter's hernia is associated with a significantly high mortality rate of 17% to 21%; the prognosis is particularly unfavourable if peritonitis develops.

III. Conclusion & Take Home Messages

1. Richter's hernia can present very subtly, and progress to gangrene rapidly; a high index of suspicion is essential for diagnosis.
2. Richter's hernia should always be kept in mind in patients who present with atypical abdominal pain after any keyhole surgery.
3. Ultrasonography and Computed Tomography (CT) can facilitate or confirm the clinical diagnosis.
4. Urgent surgery is the mainstay of management; manual reduction should never be attempted.

References

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