Venkatachalapathy et al., 1:5
http://dx.doi.org/10.4172/scientificreports.266

Open Access Scientific Reports

Case Reports Open Access

Richter's Hernia in Paraumbilical Region with Caecum and Ascending Colon as Content of Sac: a Case Report

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Abstract

A 12 year old boy presented with history of irreducible swelling in the Para umbilical region, no history of vomiting and abdominal distension. On examination non tender swelling in the Para umbilical region, cough impulse present and soft in consistency. The swelling is not reducible and there was no change in skin around the swelling. Patient underwent exploration of the hernia which revealed Richter's hernia with normal caecum and ascending colon as content with bands around the mesentery.

Introduction

Richter's hernia [1] may be defined as an abdominal hernia in which only part of the circumference of the bowel is entrapped and strangulated in the hernial orifice. The segment of the engaged bowel is nearly always the lower portion of the ileum, but any part of the intestinal tract, [2,3] from the stomach to the colon, including even the appendix, may become incarcerated [4].

The precondition for the formation of this particular hernia, as stated by Richter, is determined by the size and consistency of the hernial orifice: it must be big enough to ensnare the bowel wall, but small enough to prevent protrusion of an entire loop of the intestine, and the margin of the hernial ring must be firm or, in Richter's words, "possess strong spring-force." According to others, the presence of a tight constricting ring is a prerequisite for strangulation and compromised blood circulation, which finally leads to ischemia and gangrene of the involved bowel [5,6]. Richter's hernias tend to progress more rapidly to gangrene than ordinary strangulated ones. This can be observed in the series of Horbach, who found 45 Richter's hernias among 146 strangulated hernias [7,8]. In these 45, he found necrosis of the bowel wall in 31 (69%); among the 101 ordinary strangulated hernias, he found bowel necrosis in only 25 (25%). This may be explained not only by the firm constricting ring that exerts direct pressure on the bowel wall [9,10], but also by the anatomical peculiarity that, as a rule, it is the free border of the intestine opposite the mesentery with the predominance of terminal arterioles that is involved. It can also be explained by the time factor. In most cases, where less than two thirds of the circumference of the bowel wall is involved. The lumen of the gut remains free and an alarming intestinal obstruction is absent [11-13]. This insidious pathologic feature of Richter's hernia often leads to late diagnosis or even misdiagnosis, thus allowing time for bowel necrosis to develop [14-16].

Figure 1

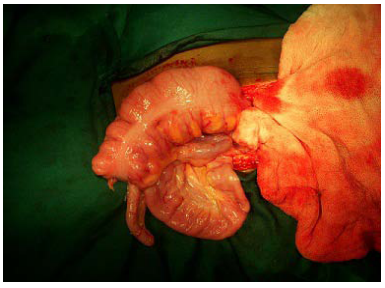

Figure 2

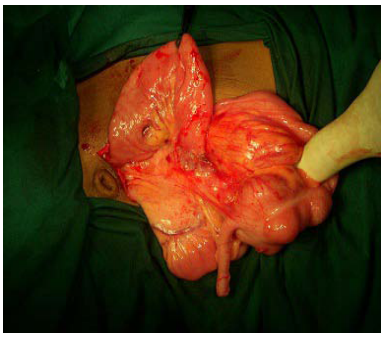

Figure 3

Case Report

We report a 12 year old boy presented with history of irreducible swelling in the Para umbilical region, no history of vomiting and abdominal distension. On examination non tender swelling in the

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Received March 28, 2012; **Published** August 22, 2012

Citation: Venkatachalapathy TS, Sreeramulu PN, Shetty NS (2012) Richter's Hernia in Paraumbilical Region with Caecum and Ascending Colon as Content of Sac: a Case Report. 1: 266. doi:10.4172/scientificreports.266

Para umbilical region, cough impulse present and soft in consistency. The swelling is not reducible and there was no change in skin around the swelling. Blood investigations and other systemic examination was normal.USG (ultrasonography) revealed a Para umbilical hernia with enterocoele as the content noticed. On exploration there was cecum and ascending colon and appendix as the content of the sac was noticed. Ladd's bands were seen at mesenteric region. Bowel viable hence contents reduced and defect closed with mayo's repair.

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