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Case Report Open Access

Isolated Infected Non-Communicating Enteric Duplication Cyst of Ileum in a Young Adult-Rare Case

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Abstract

Enteric duplication cysts are rare and uncommon congenital anomalies that arise during the embryonic period of the human digestive system's development. They are most commonly seen in infancy or early childhood, but they are seldom seen in adulthood. Due to the rarity of this anomaly, the vast bulk of literature on enteric duplication cysts is in the form of case reports, mostly among pediatric population. We present a rare case of infected isolated non communicating enteric duplication cyst in a 25 year male patient who presented with clinical diagnosis of acute appendicitis. Resection of the duplication cyst was performed safely without requiring bowel resection.

Keywords: Appendix; Open appendicectomy; Enteric duplication cyst; Non-communicating Duplication cyst; Congenital anomaly

Introduction

Enteric duplication cysts are rare congenital abnormalities that can develop anywhere throughout the gastrointestinal tract, from the mouth to the anus. The most prevalent type of enteric duplication cyst is the small bowel duplication cyst, and the ileum is the most common location [1,2]. More than 80% of the cases present before the age of 2 years as an acute abdomen or bowel obstruction. During adulthood, however, these cysts are frequently asymptomatic, and detected incidentally. Duplication cysts are associated with complications such as haemorrhage, fistulation, volvulus, and even malignant degeneration [3]. We are reporting a rare case of infected isolated non communicating enteric duplication cyst in a 25 year male patient who presented with clinical diagnosis of acute appendicitis. Resection of the duplication cyst was performed safely without requiring bowel resection.

Case Report

A 25 year old male patient reported to the emergency department with two days of right lower abdominal pain, vomiting, and loose stools. Mc Burney's tenderness, as well as rebound tenderness, was observed during a clinical examination. Acute appendicitis was diagnosed clinically. Labs revealed mild leukocytosis with neutrophilia. Ultrasonography revealed acute appendicitis with periappendiceal fluid accumulation and a 4 x 3 cm mass in the terminal ileum. Enteric duplication cysts are rare and uncommon congenital anomalies that arise during the embryonic period of the human digestive system's development. They are most commonly seen in infancy or early childhood, but they are seldom seen in adulthood. Due to the rarity of this anomaly, the vast bulk of literature on enteric duplication cysts is in the form of case reports, mostly among pediatric population. We present a rare case of infected isolated non communicating enteric duplication cyst in a 25 year male patient who presented with clinical diagnosis of acute appendicitis. Resection of the duplication cyst was performed safely without requiring bowel resection.

Patient underwent emergency open appendicectomy through a McArthur's incision. Appendicectomy was performed where appendix was inflamed. Furthermore, a mass was also discovered 1 cm distant from the ileocecal junction, towards the antimesenteric location, in the terminal ileum. Individual vascular supply was noted. The mass was dissected from the ileum upto the serosa. Purulent discharge was noted from the mass. On table a diagnosis of non-communicating enterogenous cyst was made. Specimen was sent for histopathologic study. Postoperative period was uneventful. Tissue histopathology revealed infected non communicating enteric duplication cyst with inflamed appendix (Figure 1).

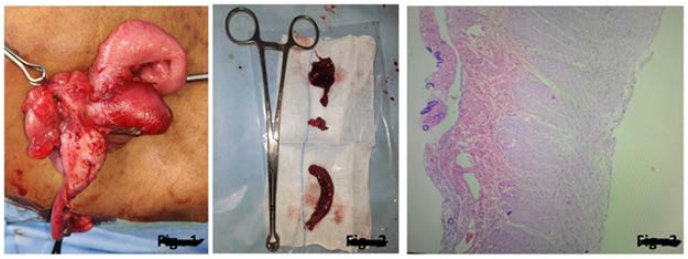

Figure1: Tissue histopathology revealed infected non communicating enteric duplication cyst with inflamed appendix.

Discussion

Wendel originally characterized duplication cysts in 1911, and only a few cases have been documented since then [4,5]. Steiner and Mogilner first described it in 1999 in children, 15 cases of NCID in the abdomen have been reported in the English literature. Enteric duplication cysts are hollow, epithelium-lined cystic, spherical, or tubular structures attached to the gastrointestinal tract wall (sometimes sharing the serosa) and supplied by common mesenteric blood vessels [6]. Enteric duplication cysts frequently share a common wall and a common blood supply with the normal intestine. The isolated duplication cyst in our case was found on the mesentery, with its own vascular pedicle and no luminal connection with the adjacent alimentary segments.

The clinical presentation is extremely variable, depending on localization, shape, size and type of mucosa. The majority of them is asymptomatic and

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was discovered by chance; they can manifest as an acute abdomen or intestinal obstruction. Volvulus, haemorrhage, and malignant degeneration are all possible complications. In all locations, gastric mucosa can be identified in 50.8 percent of cystic duplications. In duplications with ectopic gastric mucosa, peptic ulceration can lead to perforation or bleeding [7]. The preoperative diagnosis of cyst duplication is frequently incorrect. Imaging modalities such as barium tests, USG, and CT scans are commonly used to make a diagnosis. CT scans are more useful for determining the exact anatomical relationship between cysts and surrounding structures [8]. On a CT scan, these cysts appear as smooth, spherical, fluid-filled cysts or tubular structures with a thin, slightly enhancing wall. For the high prevalence of consequences such as enteric obstruction, bleeding, and rare malignant transformation in adults, surgical treatment is required in both symptomatic and asymptomatic patients with incidental diagnosis [9,10]. Cyst excisions alone could be considered, but if there is a communication, sometimes a resection of the adjacent bowel is necessary. Because recurrence or malignant alterations may develop, it is critical to ensure that the cyst is completely removed [9].

Conclusion

We present a rare case of infected isolated non communicating enteric duplication cyst in a 25 year male patient who presented with clinical diagnosis of acute appendicitis. Resection of the duplication cyst was performed safely without requiring bowel resection.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

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