

CASE REPORT

GIANT CECAL DIVERTICULUM IN A CHILD

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HOW TO CITE THIS ARTICLE:

B. K. Ramu, Arunabha Sinha, Vinod Saini, Sherlyn A. "Giant Cecal Diverticulum in a Child". Journal of Evolution of Medical and Dental Sciences 2015; Vol. 4, Issue 01, January 01; Page: 135-139, DOI: 10.14260/jemds/2015/22

ABSTRACT: An 11-year-old girl was admitted with abdominal pain and fever and a lower abdominal lump. Clinically acute appendicular mass was strongly suspected. Computed tomographic scan showed a dilated intestinal loops and a fecolith proximal to it. On laparotomy a giant cecal diverticula was found and diverticulectomy was performed. We report this rare case of a giant cecal diverticulum and provide an overview of known literature.

KEYWORDS: Giant; Cecal; Diverticulum.

INTRODUCTION: Acute abdominal pain is a very common reason for consulting a pediatric surgical emergency care unit. However, the diagnostics and treatment can be challenging.

Although appendicitis and Meckel diverticulum are frequent, there are more rare causes of abdominal pain that require surgical intervention. We describe a case of giant cecal diverticulum presenting as lower abdominal lump in a 11-year old. Reports on this disorder in the literature are rare, and hence, this is the purpose of this submission.

CASE REPORT: An 11yrs old female presented with complaint of continuous pain abdomen since 8 days over right iliac fossa & suprapubic region with history of intermittent fever since 3 days. Nausea or vomiting was absent. Her stool was normal. There was no recent history of respiratory or other infection. The general physical examination showed normal blood pressure & pulse. Per abdomen examination showed mass over lower abdomen 6X5 cm in size, smooth, moves with respiration & resonant on percussion. Blood test was normal except high leucocyte count. Ultrasound showed Mixed echogenic mass ileo-colic intusseption. Long segmental circumferential bowel wall thickening? Inflammatory etiology/ tubercular. On CT abdomen a large diverticular mass with dilated intestinal loop with fecolith was found. Patient underwent surgical treatment through right paramedian incision. Large sausage shaped tubular mass arising from inferior & lateral aspect caecum measuring 15*5 cm was found. Appendix was absent with patent ilieo-caecal valve. Mass was dissected at junction between mass & caecum leaving behind a portion of tubular mucosal structure.

This was ligated at the base flush with caecal wall and removed. Caecal wall was closed in 2 layers.

Histology showed Pseudo diverticulum with wall composed of mucosa & sub mucosa with granulomatous inflammation of large intestine.

DISCUSSION: Cecal diverticulum was first described by Potier in 1912.^[1] It can be manifested by inflammation^[2,3] and perforation.^[4,5] A solitary cecal diverticulum is a rare Entity.^[6] Giant cecal diverticula have not been categorized in the literature; however, a sigmoid diverticulum is called "giant" when its size is larger than 4 cm.^[7] Sardi et al^[8] described a series of 881 cases. The age of patients ranged from 20 to 51 years. There was a male-female ratio of 3:2. Although the etiology of a solitary cecal diverticulum is uncertain, a congenital origin is widely accepted.^[9] We found only a few

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case reports of cecal diverticula in children.^[10-12] A cecal diverticulum should be separated from cystic duplications. These lesions are also rare. In an article of 2001^[13], only 18 reports in the English literature are mentioned. Thirteen percent of all alimentary tract duplications are colonic.^[14] These congenital lesions are histologically identified by the presence of a well-developed coat of smooth muscle and intestinal epithelial lining. Thirty percent contain ectopic gastrointestinal mucosa. In contrast to diverticula, cystic duplications are mainly found on the mesenteric side of the bowel.^[15]

In duplication cysts, communication between the cyst and normal bowel lumen is not always present. A cystic duplication can be the cause of bowel obstruction^[16], whereas a diverticulum more often shows perforation and inflammation. In our case, we performed a diverticulectomy, as is commonly done in cases of single diverticula. In most reports, when there are multiple diverticula, a right hemicolectomy is performed because of suspicion of malignancy or extensive diverticular and peridiverticular inflammation. A localized resection with preservation of the ileocecal valve is an option if the surrounding tissue is viable^[17], as was performed in this case.

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Fig no. 1: pus aspirated from cecal diverticulum

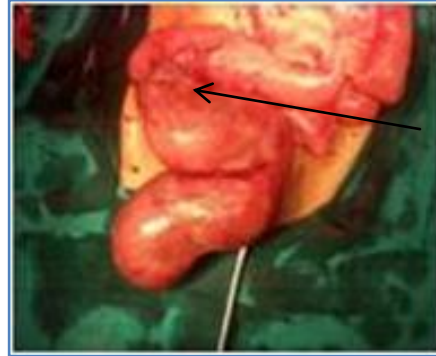


Fig no. 2: diverticulum continuous with cecum, ileocecal junction seen (arrow)



Fig no. 3: cecal diverticulum dissected from adjacent structures



Fig no. 4: double layer closure after Diverticulectomy Fig no.1-4 are intraoperative pictures



Fig no. 5: Removed specimen of cecal diverticulum



Fig no. 6: drain placed after closure of the wound

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Fig no. 7: postoperative picture of the patient

RADIOLOGICAL PICTURES

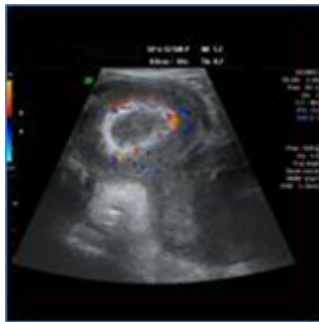


Fig no. 8: ultrasound finding

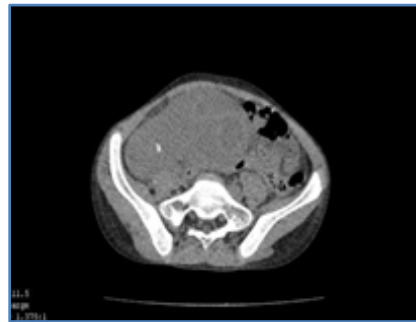


Fig no.9: CT abdomen showing cecal diverticulum

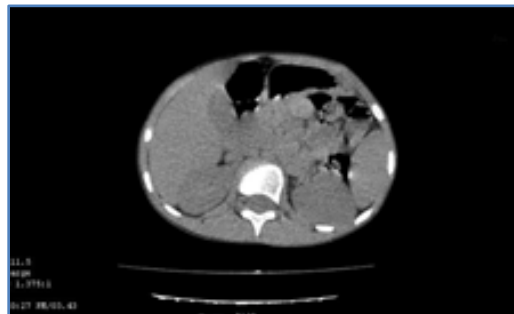


Fig. no.10: CT abdomen showing dilated bowel

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PATHOLOGICAL PICTURES



Fig no. 11: gross specimen of excised cecal diverticulum



Fig no. 12: cut section of the same specimen

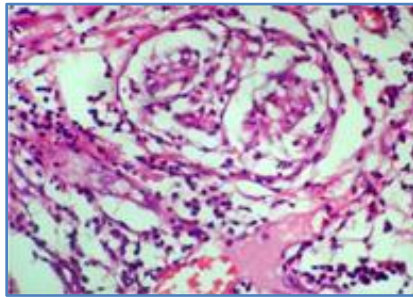


Fig no. 13: microscopic section shows thickened muscularis mucosa

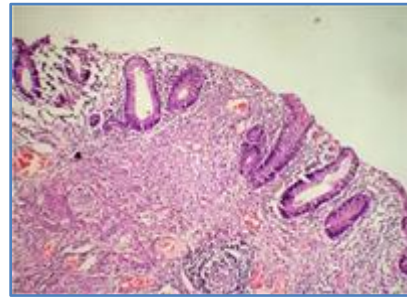


Fig no. 14: Microscopic specimen showing granuloma

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Date of Submission: 13/12/2014.
Date of Peer Review: 14/12/2014.
Date of Acceptance: 24/12/2014.
Date of Publishing: 01/01/2015.