



A Rare Case Of Cecal Mass Presenting As Intussusception In 8yr Old Child : Case Report

Dr. Shreyas N Patil, Dr. Darshan A M

1st Year Post Graduate, Department of General Surgery, SIMS, Shivamogga, Karnataka, India

***Corresponding Author:**

Dr. Darshan A M

Assistant Professor, Department of General Surgery, SIMS, Shivamogga, Karnataka, India

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Abstract

In general, duplication of the digestive tract is a condition that refers to the duplication of one of the parts of the digestive tract extending from the mouth to the anus[1].

The incidence of duplication is estimated to be approximately 1 in 4,500 live births, making it a rare condition[2]. Most cases present in children under the age of two years[3].

There are two types of duplication of the digestive tract: cystic and tubular, with most cases being cystic.

Several theories have been proposed to explain this condition, but there is no single theory that definitively explains the underlying cause. The clinical presentation depends on the location and size of the duplication. Some cases may be asymptomatic and discovered incidentally.

Duplication of the cecum is one of the rarest locations for duplication of the digestive tract, accounting for approximately 0.4% of all cases of duplication of the digestive tract[4].

In rare condition as in this case, duplication cyst can mimic as intussusception and should be kept in mind as one of the differential diagnosis.

Keywords:

Introduction

We describe the case of a 8-year-old girl who has been suffering from recurrent abdominal pain in the right iliac fossa. There is no fever or anorexia, and the pain responds slightly to medication. There are no other gastrointestinal symptoms such as vomiting, hematochezia or diarrhea. The girl's family has no history of tumors, abdominal lesions, or malformations.

On physical examination, her vital signs were good with a soft abdomen without abdominal guarding, but a mass was palpated in the right iliac fossa with pain on palpation of the mass.

There were no signs of peritoneal irritation. The rest of the physical examination was within normal limits.

Diagnostic assessment:

Abdominal ultrasound showed Ileocolic intussusception in right iliac fossa for length of approximately 2.4cms . The leading point of intussusception is a cystic lesion with gut signature sign measuring 3.2 x 3.6cm in diameter which was located adjacent to mesenteric side of the ileum.

CECT abdomen showed there is telescoping of terminal ileum loop into ceacum suggesting ilio-colic intussusception with fluid noted between the bowel walls.

The procedure was performed at our tertiary college teaching hospital. It was performed by a pediatric surgery specialist. Under general anesthesia, A upper midline incision was made extending into below umbilicus . A mass was found in cecum, It was decided to perform a complete resection of the mass

with the cecum and part of the ascending colon and perform a end to end ileocolic anastomosis with the ascending colon and closure of the layers. Histopathologic examination shows an enteric duplication cyst in the cecum with ileocolic intussusception. The child was monitored in the hospital for 5 days and then discharged in good general condition.

Discussion:

In the past, many terms were used to describe duplication of the digestive tract, such as intestinal cysts, giant diverticulum, or atypical Meckel's diverticulum. Lad later introduced the term "duplication of the digestive tract" to clarify these terms[5].

Duplication of the digestive tract is a microscopic structure that resembles the intestine, containing muscular layers and taking the form of hollow structures, either tubular or the other more common form, which is cystic. It is located near one of the parts of the digestive tract to which it is connected, where this connection can be with the muscular wall of the adjacent digestive part. It may also share the blood supply and be located on the mesenteric side of the adjacent digestive part .

Duplication of the digestive tract can occur anywhere along the entire digestive tract, with the ileum being the most common location and duplication of the cecum being rare[6].

Depending on the location, size, and shape, duplication of the digestive tract can present with a variety of symptoms. Duplication in the anterior intestine may present with symptoms associated with respiratory symptoms, while duplication of the middle and posterior intestines may present with bleeding, obstructive symptoms, or perforation.

Duplication may also present with vague abdominal pain, as occurred in our case. Occasionally, the mucosa of the duplication may contain ectopic gastric tissue, which increases the risk of perforation or ulceration.

Duplication of the cecum may present like duplication of the digestive tract when it is located in the abdomen and may be the starting point for colonic intussusception.

In rare cases, duplication of the digestive tract may remain asymptomatic.

Many theories have attempted to find a clear explanation for the occurrence of duplication of the digestive tract to reach an accurate understanding of this condition, but no theory has been able to determine the exact cause of this rare anomaly. The theory of the retention of the diverticulum during embryonic development is the most widely accepted[7].

Cystic duplication of the cecum often appears as a mass in the abdomen, and the differential diagnosis of cystic lesions in the abdomen includes cecum masses, tumors, duplication cysts, dermoid cysts, and Meckel's diverticulum cysts[8].

As for radiological investigations, abdominal ultrasound is the ideal investigation, with a sensitivity of up to 95 % and a positive predictive value of 85–100 %. There is no need to perform a CT scan in all cases.

The gold standard treatment for symptomatic intestinal duplication cysts is complete resection. However, the treatment of asymptomatic duplication of the digestive tract is controversial, and complete resection is preferred due to the potential for serious complications and malignant transformation.

Malignant changes are a rare complication of duplication of the digestive tract. Several cases of malignant tumors arising from the small intestine and also as a development of duplication cysts in the large intestine have been reported.

Conclusion:

The presence of vague abdominal pain in a child warrants a serious study of the case and not continuing with drug treatment for a long time, in order to avoid exposing the child to the risks of complications of duplication cysts of the digestive tract, and to focus on the complete resection of the cysts during surgery.

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