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Case Study

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CASE OF MECKEL'S DIVERTICULUM ON ABDOMINAL CT.

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ABSTRACT

Meckel's diverticulum is the most common congenital anomaly of the gastrointestinal tract, which may present with complications such as gastrointestinal bleeding, intussusception, bowel obstruction and diverticulitis. Imaging plays an important role in the early diagnosis of these conditions. The Meckel's diverticulum with its complications have various presentations and appearances on imaging modalities. We present a case of meckel's diverticulum in a 23 years old male.

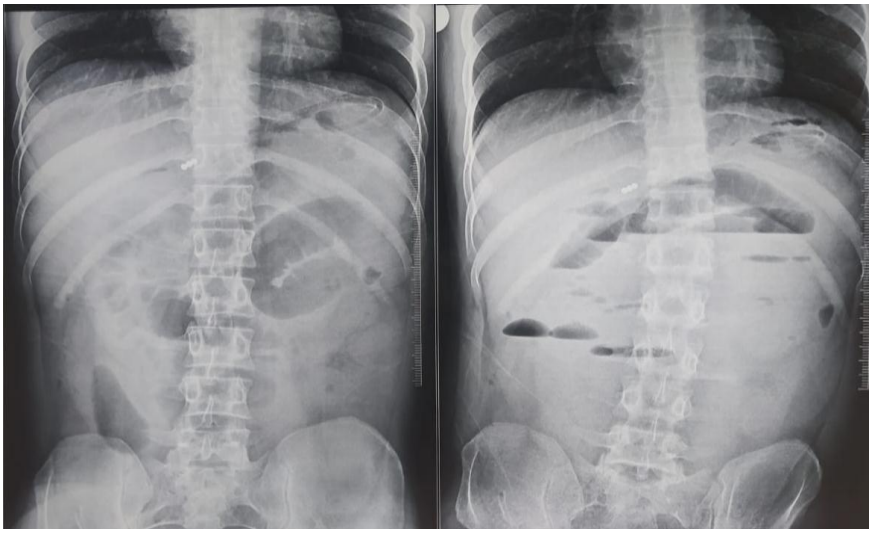
KEYWORDS: Meckel's Diverticulum, omphalomesenteric duct.

INTRODUCTION

Meckel's diverticulum is the commonest congenital anomaly of the gastrointestinal tract. It is seen in 2% of the population, and is caused by failure of the omphalomesenteric duct to regress. There are various points of attachment of a Meckel's diverticulum to the bowel. Most (75%) Meckel's diverticula are found within 100 cm of the ileocecal valve.[1] Meckel's diverticulum occurs with equal frequency in both sexes, but symptoms from complications are more common in male patients. Meckel's diverticula are typically asymptomatic and usually are found incidentally, with a lifetime risk of complications reported to be 4–40%.[2] The most common complications are haemorrhage, small-intestinal obstruction, and diverticulitis.[3] Imaging plays important role in diagnosing Meckel's diverticulum as well as its complications.

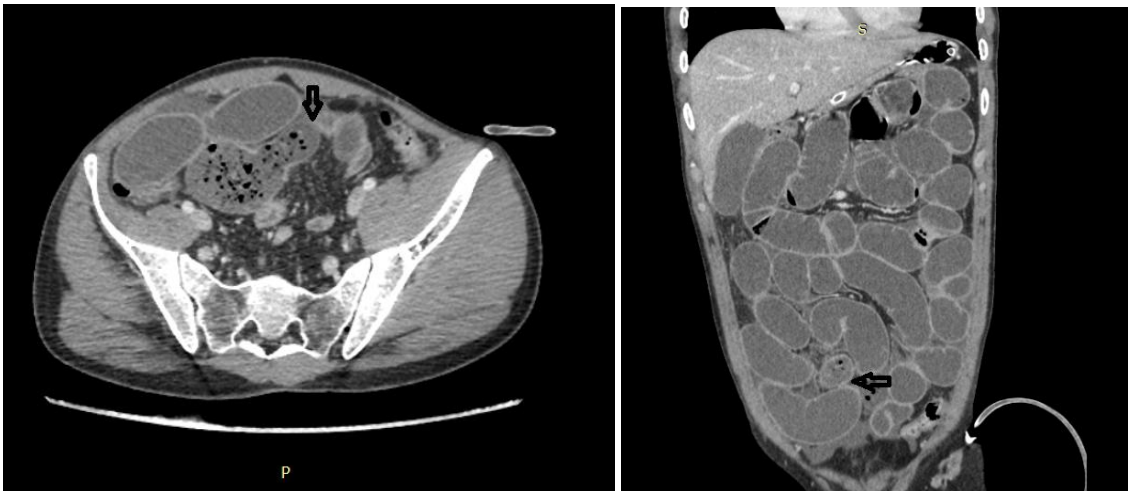
Clinical details

23 years old male presented with pain abdomen since 1 day which was acute in onset and is of moderate intensity. Pain was associated with nausea and vomiting. There was also history of malena. Plain abdominal x rays shows multiple air fluid levels with dilated small bowel loops. CECT abdomen was done which shows dilated tubular structure arising from the antimesenteric border of ileum with dilated small bowel loops.



(A) **(B)**

Fig 1: Plain X ray abdomen supine (a) and erect (b) of a 23 years old male shows dilated small bowel loops with multiple air fluid levels.



(a) **(b)**

Fig 2. CECT Abdomen axial (a) and coronal (b) images of a 23 years old male shows a blind ending tubular structure arising from antimesenteric border of small bowel (black arrows) with dilated small bowel loops.

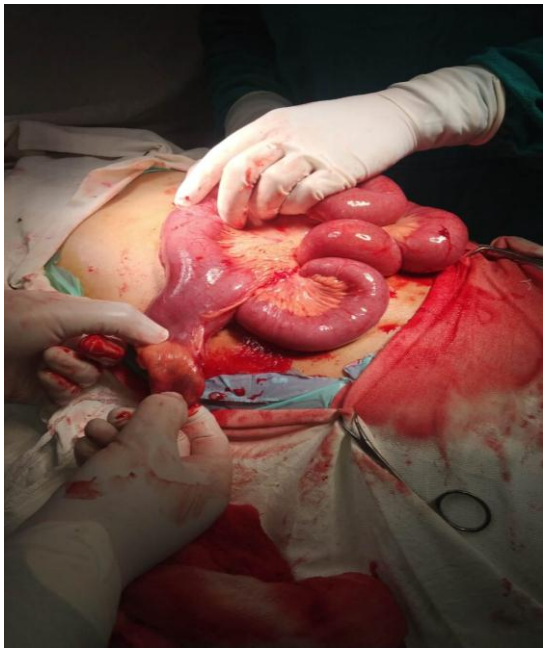


Fig. 3: Post operative image of a similar patient shows Meckel's diverticulum arising from antimesenteric border of ileum.

DISCUSSION

The Meckel's diverticulum is the commonest congenital anomaly of the gastrointestinal tract. It is a true diverticulum having all the layers of the intestinal wall.[4,5] Meckel's diverticulum is named after Johann Friedrich Meckel, who first described its embryological origin in 1809.[6] The "rules of 2" state that the Meckel's diverticulum occurs in about 2% of the population. It is about 2 inches in length, is usually located within 2 feet of the ileocaecal valve and usually presents before 2 years of age.[7] On CT scan, the Meckel's diverticulum may be seen as a tubular blind-ending structure arising from the antimesenteric border of the terminal ileum. However, in uncomplicated cases, the diverticulum is often mistaken for a normal small bowel loop, thus limiting its detection.[8] CT is very useful in diagnosing and assessing the complications associated with the Meckel's diverticulum, particularly intra-abdominal abscess formation, obstruction and perforation, tumours and, sometimes, in detecting active extravasation of intravenously injected contrast medium in cases with active intestinal haemorrhage.

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