

# UNCOMPLICATED BIFID MECKLE'S DIVERTICULUM MIMICKING RECURRENT APPENDICITIS

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## ABSTRACT

Meckel's diverticulum is the rare congenital anomaly in children. When inflamed it can mimic acute appendicitis. The distal end of the Meckel's diverticulum is usually rounded and narrow. We present a case of partially bifid Meckel's diverticulum in a young boy who presented with features of recurrent appendicitis. During appendectomy, a bifid Meckel's diverticulum was found in therein the distal ileum. It was excised with V shaped ileal wall. Histopathology showed features of Meckel's diverticulum without any Gastric or pancreatic tissue in mucosa. Clinicians should be wary of a bifid meckel's diverticulum as a very rare anomaly that can be symptomatic mimicking appendicitis.

**Key words:** Bifid, Meckel's, Diverticulitis

## INTRODUCTION

Meckel's diverticulum (MD) is the most common congenital small intestine abnormality (Blando – Ramirez, 2015). It is caused by incomplete obliteration of the omphalomesenteric duct during the 7th week of gestation (Uppal et al., 2011). This Diverticulum occurs in 2% of the general population. Prevalence in males is 3-5 times higher than females. It is symptomatic in only 2% of cases. It is a true diverticulum possessing all the coats of the intestinal wall

and has its own blood supply. It represents the embryological remnant of the proximal part of the vitello-intestinal duct which joined the foetal midgut & the yolk sac. The diverticulum is 3-5 cm long and found 60 cm from the ileocaecal junction. The diverticulum is usually lined by normal small intestinal mucosa [Standring, 2016]. Duplication of the meckel diverticulum is very rare. We present a case of a child who presented with a duplicated meckel diverticulum.

## CASE REPORT

A young boy aged 13 years was admitted to JSS Hospital during Feb 2017 with history of recurrent attacks of pain in the right lower abdomen with nausea since 6 months. The patient was posted for laparoscopic appendectomy and it was detected per operatively that his terminal ileum had one diverticulum at the ante mesenteric border. It was about 5 cm long with a lumen of approximately 2 cm and the free end was bifid with two finger like projections at the tip. This

finding in a Meckel's diverticulum is rare entity. By extending the right iliac fossa port site, the terminal ileum was delivered into wound and a part of the ileal wall was also included in the excision of the MD. The defect in the ileal wall is closed in two layers. Histology of the diverticulum showed features of MD without any heterotrophic mucosa in the wall, and the excised appendix showed features of acute appendicitis

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**Figure 1 A and B:** Duplicated Meckel's Diverticulum. Note that the base is shared, while the tip of the diverticulum is bifid.

## DISCUSSION

The Meckel's diverticulum is a true diverticulum, present at birth as a slight bulge in the small intestine and a vestigial remnant of the omphalomesenteric duct (Standring et al., 2016). In as much as Meckel diverticulum are the commonest ileal congenital anomalies, their duplication is very rare (Blando – Ramirez et al., 2014). This diverticular can cause complications in the form of ulceration, haemorrhage, intussusception, intestinal obstruction, perforation and, very rarely, vesicodiverticular fistulae and tumours. These complications, especially bleeding, are more common in the paediatric age group than in adults (Stone et al., 2005).

Intestinal duplication is rare and is caused by septation of the intestinal lumen (Sakomoto et al., 2000). We postulate that septation of the

omphalomesenteric duct can cause duplex Meckel's diverticulum. It is often misdiagnosed because it mimics acute appendicitis (Uppal et al., 2011). While performing laparoscopic or open appendicectomy it is usual practice to inspect the terminal ileum for presence of Meckle's diverticulum. If found it should be excised to avoid confusion in future acute abdominal conditions especially in children. The base of the Meckel's diverticulum can possess an ectopic gastric or pancreatic epithelium which can cause bleeding . Hence a portion of the small bowel on either side of diverticulum is included in the resection followed by end to end anastomosis. In conclusion a bifid Meckel's diverticulum is very rare anatomical entity and can mimic recurrent appendicitis.

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