

Case report

# Unusual Presentation of a Meckel's Diverticulum: A Case Report

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## ABSTRACT

Meckel's diverticulum (MD) is the most common congenital malformation of gastrointestinal tract. It can cause a variety of complications, such as an ulceration, hemorrhage, intussusception, perforation. These complications, bleeding in particular, are more common in children than in adults. Although MD is the most prevalent congenital anomaly of gastrointestinal tract, it is often difficult to diagnose. In fact, it may remain completely asymptomatic, or it may mimic other disease such as acute appendicitis, crohn's disease and peptic ulcer disease. Several risk factors for developing symptomatic MD have been identified, such as male gender, age younger than 50years, length of diverticulum of 2CM or more, or those that contain heteropic tissue. When two or three of these factors were met, the percentage of symptomatic MD increases to 25,42, and 70% respectively. Cases of giant MD(>5CM) are relatively rare and associated with multiple severe complications. Axial torsion and gangrene of MD is an extremely rare complication. We present a case of giant necrotic MD with perforation at its base, associated with mildly inflamed appendix.

## Keywords:

Meckle Diverticulum  
Giant Meckle Diverticulum  
Perforation  
Acute Appendicitis

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## INTRODUCTION

Meckel's diverticulum (MD) is considered to be the most common congenital malformation of gastrointestinal Tract affecting 2% of the general population. It can be asymptomatic or mimic some common abdominal disorders. Only 4% of patients with an MD develop complications such as bleeding, perforation, inflammation or obstruction. The average size of a MD is 3CM and 90% are 1 and 10CM. A giant MD maybe prone to more complications [1-4].

## Case presentation

We present a case of an otherwise healthy 4year old, transferred from Pediatrics ward as case of perforated appendix. Patient complain of abdominal pain that started 3days before the admission, and associated with vomiting and fever. On examination: peritoneal signs, with localized guarding at the right iliac fossa, were present. There were also presented with tachycardia (130/mint), temperature (38.5C), and leukocytosis with Neutrophilia. The patient received intravenous fluids, co-amoxiclav, and metronidazole before the surgical operation.

Intraoperative, the appendix was mildly inflamed with no

perforation. A giant necrotic Meckel's diverticulum was found accidentally with perforation at its base. Appendectomy and the excision of Meckel's diverticulum was done (simple diverticulectomy). The patient was discharged at the 5th day post-operative without any complications in the recovery period.



**Fig 1. Site of perforation at the base of the necrotic**

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**Meckel's diverticulum****Fig 2. Inflamed appendix****Fig 3. Giant necrotic Meckel's diverticulum before diverticulectomy.**

Diverticulectomy was easily performed with appendectomy. Pathology confirmed hemorrhagic Meckel's diverticulum with mild inflamed appendix. The patient recovered without any complications and was discharged on the 5th day post-operative. The post-operative course was uneventful.

**DISCUSSION AND CONCLUSION**

Meckel's diverticulum has various clinical presentations, and it is difficult to diagnose preoperatively. It is necessary to maintain a high index of suspicion for MD in pediatric age group who are complaining of abdominal pain [6]. Despite extensive diagnostic work, only few patients with MD were diagnosed preoperatively [7]. According to the study outcomes, the width of a diverticulum's base seems to be an important predictive factor associated with the presence of gastric heterotopia in Meckel's diverticulum. The laparoscopic/open resection of asymptomatic MD with wide base should be recommended [8]. We recommend removing all incidental Meckel that have any of the 4 features most commonly

associated with symptomatic Meckel's diverticulum [9].

**Consent**

Informed consent was taken from the parents for publication.

**Author contributions**

Nadiyah Ahmed was done the data collection, interpretation and writing. Kariema Saeid helped in data collection. Saeid Omer review the data.

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