Journal of Medical Sciences and Health Care Research
ISSN: 3068-9104

PRIME OPEN ACCESS

Volume 2, Issue 2

Case Report

Date of Submission: 06 September, 2025
Date of Acceptance: 10 October, 2025
Date of Publication: 27 October, 2025

Meckel's Diverticulum Which Suicide Itself and Sacrificing Part of Ileum Due to Diverticular Band – A Case Report

Mezgebu Bogale*

Former assistant professor of general surgery at Injibara university and Arbaminch university Currently General Surgeon at private hospital in Addis Ababa, Ethiopia

***Corresponding Author:**
Mezgebu Bogale, Former assistant professor of general surgery at Injibara university and Arbaminch university Currently General Surgeon at private hospital in Addis Ababa, Ethiopia.

Citation: Bogale, M. (2025). Meckel's Diverticulum Which Suicide Itself and Sacrificing Part of Ileum Due to Diverticular Band – A Case Report. *J Med Sci Health Care Res, 2*(2), 01-03.

Abstract

Introduction

Meckel's diverticulum is the most common form of gastrointestinal congenital anomaly. It's common complication being inflammation, bleeding, perforation, and obstruction. It is well known that the commonest complication is obstruction, but gangrenous meckel's diverticulum is rarest. Due to various reasons preoperative diagnosis is challenging. Our case was diagnosed being delayed. Since gangrene formation is rare, here I presented a case with gangrenous meckel's diverticular band forming closed loop gangrenous small bowel obstruction for academic interest.

Case Presentation

This patient was 29-years-old female patient presented with central abdominal pain of 2 days duration. She has also diarrhea and vomiting of ingested matter not more than three episodes. She has history of dyspepsia. On physical examination vital signs were in acceptable range. Mild epigastric tenderness was there. In addition, radiologic results were unremarkable except minimal pelvic fluid in sonographic evaluation. For the above vague findings she was put on antacid medications and the decision for surgery was delayed for 24hrs. But her symptoms worsened and exploratory laparotomy done; found to have 1L haemorregic fluid, 150cm gangrenous ileum and gangrenous diverticulum which has arisen 1m away from ileocecal valve. We did resection of gangrenous part and ileo-transverse anastomosis done because; the remaining distal ileum was ultra-short to do end to end anastomosis. The out- come was uneventful.

Discussion

Diagnosing meckel's diverticulum complication is challenging due to non-specific clinical manifestation, less specificity & sensitivity of laboratory tests and radiologic findings. It is wise to consider meckel's diverticulum and its complications in the arena of acute abdomen both as a surgeon and radiologist hence prompt management leading to decreased morbidity and mortality.

Conclusion

Though diverticulum causing gangrene of itself and small bowel is rare, it is good to have high index of suspicion as a surgeon and radiologist

Keywords: Diverticulum, Gangrene, Small Bowel Obstruction

Introduction

Meckel's diverticulum commonly arises at antimesentric aspect 100cm away from ileocecal valve. It is mainly due to failure in obliteration of omphalomesentric/vitteline duct. This should have happened 5-7th week of intrauterine life (1). It occurs in 1-4% of general population affecting both genders equally but the complication out numbers in men (1-3). Usually it is silent and if complication happens it is among one of the following: bleeding, intestinal obstruction and diverticulitis. Meckel's diverticulum which suicide itself and making gangrene of small intestine is rarest of rare (3). Here I am going to present suicidal meckel's diverticulum which sacrificed itself and part of ileum.

Case presentation

A 19-years-old female patient from Addis Ababa, Ethiopia, presented with vague central abdominal pain of 2 days duration. She had also vomiting of 3 episodes and diarrhea of 2 episodes. She had long time history of dyspeptic features. She had regular menstruation and on contraceptive. No history of any chronic illness. On physical examination she was acutely sick looking(in pain), vitals were within acceptable range, she had only mild epigastric tenderness. Otherwise normal findings

On lab and imagings, Urine analysis showed lower urinary tract features, CBC-all within acceptable range, abdominal ultrasound minimal lesser sac fluid, erect abdominal x-ray; unremarkable.

Pancreatic enzymes were normal. She was admitted with working diagnosis of dyspepsia r/o pancreatitis and put on antacid medications. Despite that the pain started to be severe and central for which CT scan of the abdomen with contrast done after 24hrs of admission and showed: intra-abdominal fluid collection and partial bowel obstruction. On physical examination clear signs of peritonitis appeared and exploratory laparotomy done.

The findings were 1 l haemorregic fluid all over peritoneal cavity, meckel's diverticulum which is gangrenous arising from 1m away from ileocecal valve and entangling itself and 150cm of ileum which is gangrenous also. The main cause for obstruction was a band arising from tip of diverticulum and adhered to mesentery of terminal ileum. Other structures were grossly normal. We did release of band, resection of gangrenous ileum with diverticulum, and then since the remaining terminal ileum was ultra-short we did side to end ileotransverse anastomosis. After 5days of ward stay the patient discharged home. I followed her for 1 month and after 2 weeks she developed adhesive obstruction which had managed with NGT for 24hrs otherwise there were no other serious complications.

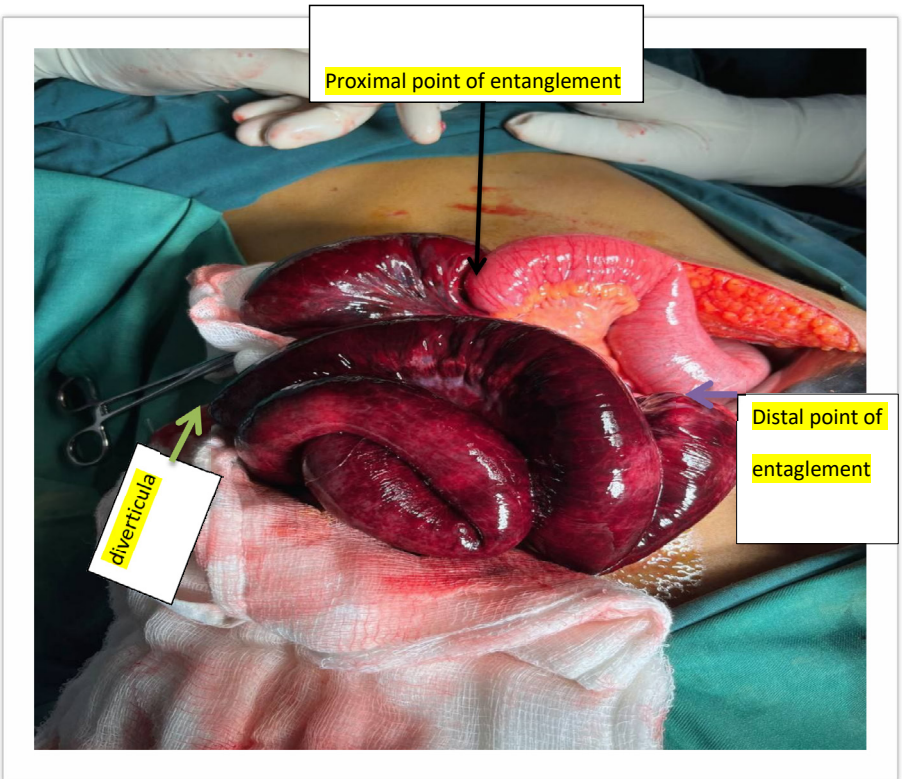

Figure 1: Intra Operative Picture, Gangrenous Part of Ileum and Diverticula(which is not Clearly visible in the Picture)

Discussion

The incidence of meckel's diverticulum differs from literature to literature but averaging 1-4% of general population [1]. It is true diverticula arising from antimesentric border of small intestine averaging 100cm away from ileocecal valve. It is first described by Fredrick Michael [1-4]

MD is usually silent and unless complicated it is incidental finding [4]. For complicated meckel's diverticulum manifestations are abdominal pain, nausea, and vomiting, abdominal distension which can mimic other causes of acute abdomen [2]. It affects both sexes equally but complication is more in male children. The most common complications are obstruction, bleeding and inflammation. Though obstruction is commonest complication, it is rare to be suicidal one for diverticula [3]. Diagnosis of meckel's diverticulum and its complications is challenging, hence high index of suspicion is crucial [5]. Management is different for those silent ones and symptomatic. Once the symptomatic meckel's diverticulum is diagnosed, the management will be surgical and the approach can be laparoscopic or open. For asymptomatic ones, which are diagnosed incidentally management depends on chance of future complications based on risk factors which include; age of the patient, length of diverticula, male sex and presence of ectopic tissue [2].

Conclusion

Meckel's diverticulum is commonest gastrointestinal congenital anomaly and it is true diverticula. Most commonly it is incidental finding. Though obstruction is commonest complication of meckel's diverticula, gangrenous obstruction sacrificing both diverticula and small bowel is rare. Preoperative diagnosis is challenging for meckel's diverticula and its complications, since imagings are non-specific and less sensitive. Furthermore manifestation of complicated meckel's diverticulum mimics other causes of acute abdomen. The management for incidentally founded mickele's diverticulum will be decided intra-operatively based on risk factors for future complications. But the complicated meckel's diverticulum management is purely surgical.

Sources of Funding

There is no any funding; I am reporting this case for academic purpose only.

Ethical Approval

The study is exempt from ethical approval in our setup.

Author Contribution

From inception of the idea up to approval it is solely my work

Consent

Our institution consent form for surgery grants also patient consent for any research which helps for academic purpose

Declaration of Competing Interest

I declare as there is no conflict of interest.

References

1. Arslan, H. E., Zeren, S., Ekici, M. F., & Algın, M. C. (2020). A rare cause of intestinal obstruction: mesodiverticular band. Turkish Journal of Colorectal Disease.
2. Bejiga, G., & Ahmed, Z. (2022). Gangrenous Meckel's diverticulum with small bowel obstruction mimicking complicated appendicitis:'Case report'. International Journal of Surgery Case Reports, 97, 107419.
3. Abdel-Hady, A., Maghawri, M., & M Abdelrahman, S. R. (2019). Intestinal obstruction caused by gangrenous Meckel's diverticulum encircling terminal ileum: a case report with emphasis on image findings. Journal of Medicine in Scientific Research, 2(1), 15.
4. Sharma, R. K., & Jain, V. K. (2008). Emergency surgery for Meckel's diverticulum. World Journal of Emergency Surgery, 3(1), 27.
5. Cruz, Ethel & Solis, Eduardo & Nájera, Sayra & Ocegueda, Oscar & García, Ricardo. (2024). Meckel's Diverticulum: An In-depth Review of Pathophysiology, Clinical Presentation, Diagnostic Modalities, and Therapeutic Interventions. International Journal of Medical Science and Clinical Research Studies.