

Uncommon Presentations of Meckel's Diverticulum in Adults: A Single Center Case Series Study

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Abstract: Meckel's diverticulum is a common congenital abnormality of gastrointestinal tract, resulting from an incomplete obliteration of the vitelline duct during the 5th week of the gestation. It may generally remain silent and asymptomatic but life-threatening complications like perforation and intestinal obstruction can occur sometimes, making it important to know its detailed anatomy and pathophysiology. The most common complications of Meckel's diverticulum are perforation, intestinal obstruction, hemorrhage, acute diverticulitis, etc. We are presenting five cases of Meckel's diverticulum with varied presentations. Two cases presented as intestinal obstruction, one with perforation, one case of incidental Meckel's diverticulum and one with intussusception.

Keywords: Meckel's diverticulum, intestinal obstruction, intussusception

1. Introduction

Meckel's Diverticulum (MD), is the most common congenital true diverticula of the GI tract, affecting approximately 2% to 4% of the general population. The mucosa of a Meckel's diverticulum contains heterotopic epithelium of gastric, colonic or pancreatic type. The presence of heterotopic mucosa may predispose to the development of complications and therefore, our aim is to highlight the characteristics and manifestations of adult MD and pay attention to its complications leading to surgery.

2. Methods

Five consecutive patients diagnosed with complicated MD were included in this case series study. All patients underwent surgical intervention under general anaesthesia, with standard laparoscopic procedures. Each patient received individualised, case - specific management, and all were discharged with follow - up as scheduled.

S. No.	Presentation	Examination
Case 1	46/F with pain abdomen and nausea for 4 months. No co - morbidities/ history of previous surgeries.	Soft, non distended, tenderness at peri - umbilical region, no guarding/ rigidity, bowel sounds present.
Case 2	37/M with pain over the right iliac fossa for 2 days along with fever. Hypertensive for 3 years. No history of surgeries.	Soft, non distended, right iliac fossa tenderness present, bowel sounds present.
Case 3	33/M with generalised abdominal pain, with fever and vomiting for 3 days. No co - morbidities/ history of previous surgeries	Soft, mildly distended, generalised tenderness with guarding and no rigidity. Bowel sounds are sluggish.
Case 4	41/F with generalised abdominal pain and vomiting. History of constipation for 3 days. No co - morbidities/ history of previous surgeries	Distended, generalised tenderness with guarding. No rigidity. Bowel sounds absent.
Case 5	44/M with generalised pain abdomen with fever, vomiting and constipation. No co - morbidities/ history of previous surgeries.	Distended, generalised tenderness with guarding. No rigidity. Bowel sounds absent.



Figure 1: Intussusception of the bowel noted



Figure 2: Incidental finding during surgery



Figure 3: As small bowel obstruction, perforated MD.



Figure 4: As small bowel obstruction.



Figure 5: As small bowel obstruction.

3. Results

All included patients were symptomatic who exhibited a combination of symptoms including abdominal pain, vomiting, and/ or peritonitis. Symptoms of those mimicking acute appendicitis. One underwent laparoscopic resection of MD upon visualising a normal appendix. Rest underwent laparoscopy which was converted to open procedure where a small supra - umbilical midline incision in which two cases presented with peritonitis causing obstruction as a result of a perforated MD. One presented with intussusception in which MD was secondarily obstructed. Remaining one presented with gangrenous MD causing small bowel obstruction.

4. Conclusion

Rare complications of Meckel's diverticulum require a high index of suspicion for diagnosis, as their symptoms often mimic other conditions that cause diffuse abdominal pain. Timely intervention is crucial to prevent hospital mortality and morbidity, as well as to reduce the duration of hospital stay.

References

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