



## MECKEL'S DIVERTICULUM CAUSING ACUTE SMALL BOWEL OBSTRUCTION -A RARE CASE REPORT

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### ABSTRACT

The most common congenital anomaly of small intestine is Meckel's diverticulum. Various complications include inflammation, intestinal obstruction, hemorrhage due to ectopic mucosa. Small bowel obstruction due to fecal impaction in Meckel's diverticulum is a rare complication.

### KEYWORDS :

#### INTRODUCTION

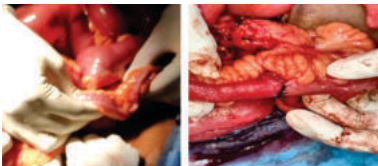
The etiology of majority of small bowel obstructions cases results from postoperative adhesions and obstructed hernias. Meckel's diverticulum is the most common congenital anomaly of the gastrointestinal system. It originates from failure of the vitelline duct to obliterate completely. Its incidence is about 1%-3%. It is present in the antimesenteric border of the ileum mostly within 60cm to 90cm from ileocecal junction. This is a case report presents the diagnosis and treatment of a small bowel obstruction due to fecal impaction in a Meckel's diverticulum.

#### CASE REPORT

A 39year old male with no comorbidities presented with complaints of abdominal pain, abdominal distension, obstipation and bilious vomiting for 3 days. Clinically patient had tachycardia, abdominal distension, tenderness around periumbilical region, bowel sounds were increased. Blood investigations were within normal limits. Xray abdomen erect shows dilated small bowel loops with multiple air fluid levels. Computed Tomography of abdomen showed dilated small bowel loops with transition point at ileum, large bowel loops were collapsed consistent with small bowel obstruction. Emergency laparotomy was done and found to have Gross distension of the small bowel noted, Meckel's diverticulum of length 5cm noted 60cm proximal to ileocecal junction. Meckel's diverticulum found to be impacted with fecal matter causing mechanical bowel obstruction, large bowel appears collapsed with upstream dilatation of ileal and jejunal loops, proceeded with resection of ileal segment with Meckel's diverticulum and emptying the proximal bowel, end to end ileoileal anastomosis. Post operative period was uneventful and was discharged after a week.



Intraoperative Images Showing Meckels Diverticulum With Fecal Impaction Causing Small Bowel Obstruction At Mid Terminal Ileum.



Intraoperative Picture Showing Transition Point At Meckel's Diverticulum Causing Small Bowel Obstruction

#### DISCUSSION

Intestinal obstruction accounts for 20% of emergency surgical admissions and the most common etiology being adhesions followed by obstructed hernias. Meckel's diverticulum is the most common congenital anomaly of the gastrointestinal system. It originates from failure of vitelline duct to obliterate completely. Its incidence is about 1-3% of general population with male to female ratio of 2:1. Its common location is approximately 60 -90cm proximal to ileocecal junction and its length varies between 1-10 cm. Among people with Meckel's diverticulum, only about 3% develop complications during their lifetime. Histologically, Meckel's diverticulum may contain ectopic gastric and pancreatic mucosa causing hemorrhage. Usually Meckel's diverticulum were found incidentally during surgical procedures with some other indications. Common complications of Meckel's diverticulum include small bowel obstruction, hemorrhage, infection and inflammation. Meckel's diverticulum with fecal impaction causing small bowel obstruction is rarely seen.

Meckel's diverticulum is one of the most common anomaly of small intestine. Diagnosing with preoperative imaging studies is difficult. Most of the patients will be asymptomatic, some will develop complications like hemorrhage, infection, intestinal obstruction.

Intestinal obstruction is the second most common complication of Meckel's diverticulum. Various mechanisms of bowel obstruction by Meckel's diverticulum includes Intussusception, Littre's hernia (Meckel's diverticulum as hernial sac content). Mesodiverticular band entrapping a bowel loop.

Malignancies also occur in Meckel's diverticulum. NET, most common malignant neoplasm, followed by adenocarcinoma, GIST, lymphomas.

Radiological investigations have limited value in diagnosing Meckel's diverticulum preoperatively. Computed Tomography showing a blind ending fluid or gas filled structure in continuity with the small bowel may raise the suspicion of Meckel's diverticulum, CT scan also identifies intussusceptions. Incidental Asymptomatic Meckel's diverticulum can be left without any complications, Symptomatic Meckel's diverticulum with pathology should be proceeded with segmental resection of bowel with Meckel's diverticulum and anastomosis.

#### CONCLUSION

Clinicians should have high degree of suspicion in diagnosing Meckel's diverticulum in patients presenting with

small bowel obstruction as its preoperative diagnosis is very difficult with imaging investigations.

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