

*Case Report***A Case of Meckel's Diverticulum**Meril Ann Soman<sup>1</sup>, Ramakrishna Avadhani<sup>2</sup>, Rani Nallathamby<sup>1</sup>, Meera Jacob<sup>3</sup><sup>1</sup>PG student, <sup>2</sup>HOD, <sup>3</sup>Assistant Professor;  
Department of Anatomy, Yenepoya Medical College, Mangalore, India.

Corresponding Author: Meril Ann Soman

*Received: 05/02/2014**Revised: 26/02/2014**Accepted: 05/03/2014***ABSTRACT**

Meckel's diverticulum is the remnant of the proximal part of the vitello-intestinal duct which usually disappears later. It is located in the distal ileum usually two feet proximal to the ileo-caecal valve. This is a case of an adult female patient who presented with pain abdomen in the right iliac fossa. She was provisionally diagnosed as a case of acute appendicitis and was taken up for surgery. Meckel's diverticulum was an incidental finding during the procedure. Diverticulectomy was performed. This case report highlights the importance of seeing for the presence of any meckel's diverticulum during an appendicectomy surgery. The case report and the probable clinical implications of meckel's diverticulum are discussed in this paper.

**KEYWORDS:** Meckel's diverticulum, vitello-intestinal duct, diverticulectomy, rule of 2**INTRODUCTION**

Meckel's diverticulum or the 'diverticulum ilei' is a slight bulge in the small intestine and a vestigial remnant of the vitelline duct (also called the omphalomesenteric duct or yolk stalk). <sup>(1)</sup> It is a congenital diverticulum and is present at birth. It is the most common malformation of the gastrointestinal tract. Fabricius Hildanus was the first person to explain on Meckel's diverticulum in the sixteenth century and later it was named after Johann Friedrich Meckel, who had described the embryological origin of this type of diverticulum in 1809. <sup>(2)</sup>

Meckel's diverticulum is associated with a 'Rule of 2'. It is seen in approximately 2% of the population. Male: Female ratio is

2:1. The most common age of presentation is 2 years. It is usually present 2 feet proximal to the ileo-caecal valve. 2 inches in length and the 2 types of common ectopic tissue found in meckel's diverticulum are gastric and pancreatic tissue. <sup>(3)</sup>

**CASE REPORT**

A 45 year old female patient presented to the hospital with history of severe abdominal pain and vomiting since three days. Pain was colicky in nature and was associated with nausea and vomiting. Pain was initially present around the umbilicus and later shifted to right iliac fossa. No history of bleeding per rectum or any other associated illness. Patient gives

history of taking some analgesia for the above symptoms. But the pain was still persisting. Physical examination revealed mild increase in temperature. Other vitals of the patient were within normal limits. Per abdominal examination showed mild distension. The patient had tenderness in the McBurney's point. Rovsing's sign was positive. No mass was felt on palpation. Routine investigations were done. Blood investigations showed mild rise in the WBC count. Ultrasonography was done which showed inflamed appendix. Provisional diagnosis of acute appendicitis was made and the patient was prepared for appendicectomy surgery. Pre-anaesthesia consultation and consent were obtained. Patient was taken up for surgery. An incision was made in the right iliac fossa. Appendix was retrocaecal in position and was found to be inflamed. Appendicectomy was done. Before closure of the abdomen, the surgeon noticed the presence of meckel's diverticulum on the anti-mesenteric border of the Ilium. The diverticulum was cleared off from the adhesions and diverticulectomy was also performed. Primary closure of the defect was done. Tissues were sent for histopathological examination. Post operative period was uneventful. Histopathology report revealed an inflamed appendix and presence of ectopic pancreatic tissue in the meckel's diverticulum. (Figure-1)

## DISCUSSION

Meckel's diverticulum was an incidental finding in the above case. It is a remnant of the vitellointestinal duct which forms the connection from the yolk sac to the small intestine during embryonic development. It is a true congenital diverticulum and consists of all the three layers of the bowel wall. <sup>(4)</sup> Usually found on the anti mesenteric border of the ilium and has got its own blood supply. Meckel's

diverticulum may harbour abnormal tissues of which gastric mucosa and pancreatic tissues are the most common. <sup>(5)</sup> Majority of meckel's diverticuli are asymptomatic and are discovered incidentally intraoperatively. <sup>(6)</sup> Mostly presents with painless rectal bleeding followed by symptoms of intestinal obstruction and may occasionally mimic acute appendicitis also. <sup>(7)</sup> Complications include gastrointestinal bleeding, peritonitis, intussusception, diverticulitis, perforation and intestinal obstruction. <sup>(8)</sup> Small bowel obstruction accounts as the most common complication in adults and second most common in children. Technetium-99m pertechnetate scan (Meckel's scan), Ultrasonography, CT scan and barium studies are useful in the diagnosis of meckel's diverticulum. <sup>(9)</sup> Angiography can be done in case of bleeding. Diverticulectomy is the usual mode of treatment. <sup>(10)</sup> Even if Meckel's diverticulum is found to be asymptomatic, it is better to perform a diverticulectomy procedure to avoid any further complications. <sup>(10)</sup>



Figure-1 showing Meckel's Diverticulum found intraoperatively

## CONCLUSION

Incidental finding of Meckel's diverticulum is not very uncommon. Presence of Meckel's diverticulum may result in fatal complications. Early recognition can lead to necessary treatment. This case therefore highlights the

importance of ruling out the presence of Meckel's diverticulum during any intra abdominal surgeries involving the intestinal loops as majority of Meckel's diverticulum are asymptomatic.

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