



UNUSUAL PRESENTATION OF MECKEL'S DIVERTICULUM IN AN ELDERLY PATIENT

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ABSTRACT

Meckel's diverticula are most common congenital anomalies. Sometime it may be present as a clinically significant lesion. It is a diagnostic challenge however in this era modern diagnostic modalities available. We report a case of intestinal obstruction due to large ileal diverticula in 65 year lady. Intra operatively we found large ileal diverticula in left iliac fossa which was 25 cm proximal to ileocaecal junction causing obstruction due to hampering small bowel peristalsis or due to diverticulitis. Our case highlights uncommon mechanism of small bowel obstruction, although it's a rare. The Diagnosis, complication and management should be part of every surgeon when considering abdominal pathology.

KEYWORDS : ileum, meckel's diverticulum, intestinal obstruction

INTRODUCTION

Meckel's diverticulum considered as most common congenital anomaly (2-4%) of gastrointestinal tract due to persistence of the congenital vitello intestinal duct. Hemorrhage from meckel's diverticulum due to ectopic gastric mucosa is the most common presentation in younger population. In older population may present with obstruction, perforation, intussusception, volvulus, hemorrhage and tumors. Heterotopic gastric and pancreatic mucosae are frequently seen histologically. It is a true diverticulum, contains all layers of bowel wall and typically located on antimesenteric border although anatomical variation may exist [1]. Preoperative diagnosis of meckel's diverticulum is a clinical challenge and cases are often misdiagnosed. However meckel's scintigraphic study is considered as accurate non invasive investigation [2]. In developing country it is still a diagnostic challenge due to lack of scintigraphy in remote areas.

CASE SUMMARY

A 65 year Indian lady presented to our emergency department with pain abdomen and abdominal distension since one week. Her general examinations were normal, on per abdominal examinations abdomen was distended, nontender and there was no guarding and rigidity. The haematological, renal and liver function tests were within normal limits. X-ray shows air fluid level in left iliac fossa (fig-1) and ultrasonography was suggestive of intussusception with inflammatory bowel thickening. With this diagnostic dilemma Contrast enhanced computed tomography performed which revealed large diverticular outpouching of terminal ileum (fig-2).



Figure 1



figure 2

Exploratory laparotomy performed and intraoperatively we found large diverticula (11x10 cm) in left iliac fossa, 25cm proximal to ileocaecal junction (fig-3) and rest of bowel was healthy.

We resected diverticulum containing segment of ileum and end to end anastomosis done. On cut section of specimen there were multiple reddish patches in mucosa and wall was thickened (fig-4). Histopathology of resected bowel was consistent with meckel's diverticulum. She tolerated well post operatively. She was orally allowed on post operative day five and discharged on day seventh. She is well on follow up of four months.

DISCUSSION



Initially description of Meckel's diverticulum was given by Fabricius Hildanus in 1598. In 1809 Johann Friedrich Meckel established its embryonic origin, thereafter it known as meckel's diverticulum. Meckel's diverticulum considered as most common congenital anomaly (2-4%) of gastrointestinal tract due to persistence of the congenital vitello intestinal duct. It is a true diverticulum containing all layers of the bowel wall. The length of a Meckel's diverticulum is ranging between 1 cm and 10 cm, and the longest 100 cm reported. Usually found within 100 cm of the ileocaecal valve on the antimesenteric border of the ileum. The mean distance from the ileocaecal valve may vary with age but usually found within 100 cm of the ileocaecal valve on the antimesenteric border of the ileum. Most cases of meckel's diverticulum are asymptomatic, and the estimated risk is around 4% for developing lifetime complications of Meckel's diverticulum [3]. In symptomatic patient it is a diagnostic challenge to confirm diagnosis however now a day's advanced imaging modalities available. Heterotopic gastric and pancreatic mucosa is frequently found histologically within the diverticula among the symptomatic patients. In older population may present with obstruction, perforation, intussusception, volvulus, hemorrhage and tumors. Intestinal obstruction is the second most common complication of Meckel's diverticulum after hemorrhage [4]. There are various type of mechanisms for bowel obstruction arising from a Meckel's diverticulum. Obstruction can be caused by a volvulus of the diverticulum around a mesodiverticular band or trapping of a bowel loop by a mesodiverticular band, and intussusception. Meckel's diverticulum may trap into a hernia sac called as Littre's hernia [5].

In our case there was no mesodiverticular band and no volvulus, diverticulum was thick walled and histopathology report was suggestive of acute inflammation, hence this diverticulitis could have been developed ileus or hampered the small bowel movements. The important aspect of our case is there was no other cause of mechanical obstruction found, so above mentioned mechanism can explain obstruction however it's a rare. Many imaging modalities available for diagnosis of Meckel's diverticulum, conventional radiographic examination have limited value. Ultrasonography has been used for the diagnosis of Meckel's diverticulum, although it has limited value and operator dependancy. Ultra sonography usually shows a fluid-filled structure in the right lower quadrant having the appearance of a blind-ending, thick-walled loop of bowel ^[6]. In our case it was in left quadrant which was also a rare presentation. Meckel's diverticulum is difficult to distinguish from normal small bowel in uncomplicated cases on computed tomography (C T) scan. C T scan is used for complicated cases such as intussusceptions, it can help to confirm the presence of intussusception and distinguish between lead point and non-lead point intussusceptions ^[7]. Meckel's scintigraphic study is considered as accurate non invasive investigation because of technetium-99m pertechnate scan is specific to ectopic gastric mucosa but it is not specific for Meckel's diverticulum, it can show positivity in gut duplication cysts with ectopic gastric mucosa [8]. In asymptomatic patients; whether all cases of incidental Meckel's diverticula should be resected or not is a controversial. On the other hand, for the symptomatic patients, treatment should always include diverticulectomy or resection of segment of the bowel affected by the meckel's diverticulum.

In conclusion, Meckel's diverticulum is a common congenital anomaly of small bowel. It is often misdiagnose or difficult to diagnose preoperatively in symptomatic patients. Many times it encountered during laparotomy for other reason in asymptomatic patients. The present case highlights the uncommon mechanism of intestinal obstruction and atypical location in imaging. Adequate knowledge of characteristics of meckel's diverticulum will aid early diagnosis and management.

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