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Case Report Open Access

Meckel's Diverticulum: A Case Report

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Abstract

Meckel's diverticula are located along the antimesenteric border of the distal ileum and may contain rests of ectopic tissue. It can be silent or become symptomatic at any age. The symptoms are intestinal obstruction, gastrointestinal bleeding and intussusception. This case is about 11 years old boy with severe rectal bleeding and anemia that after Meckel's scan we can diagnosed the source of bleeding so with surgery the boy was cured.

Keywords: Meckel's diverticulum; Gastrointestinal bleeding; Hematochezia; Tenesmus

Introduction

Meckel's diverticulum is a true diverticulum containing all three layers of the bowel wall. Its location along the antimesenteric border of the distal ileum is consistently within 100 cm of the ileocecal valve. The average length of a Meckel's diverticulum is about 3 cm, but can range from 1 to 26 cm [1-4].

It is the most common congenital anomaly of the alimentary tract with an estimate prevalence of 1% to 4% in the general population and is more common in children younger than 4 years [4,5].

The most common ectopic tissue is gastric or pancreatic mucosa. The embryologic origin of the ectopic tissue in Meckel's diverticula is not known [2].

The wide range of clinical presentations associated with Meckel's diverticulum make establishing an accurate diagnosis challenging. The three most common presentation in children are bowel obstruction, gastrointestinal bleeding and intussusception. Gastrointestinal bleeding is produced by acid secretion from ectopic gastric tissue and children older 2 years are more likely to present with asymptomatic lower gastrointestinal bleeding [4,5].

99m-Tc scintigraphy more commonly referred to as a Meckel's scan is the best way to screen patient with lower gastrointestinal bleeding. Meckel diverticulum with rests of gastric mucosa can be detected with high specificity and positive predictive value of nearly 100% [5-7].

Whenever a symptomatic Meckel diverticulum is identified it should be removed the key surgical principle is to completely remove the ectopic tissue to prevent rebreeding [4-6].

Case Report

A 11 years old boy in Amiralmomenin hospital in Semnan, Iran. With hematochezia since 1 week ago without fever & tenesmus &abdominal pain or vomiting. The patient had weakness & faintness & vertigo. After some time, hematochezia interrupted. He had Anemia 4months ago, and no point positive in examination.

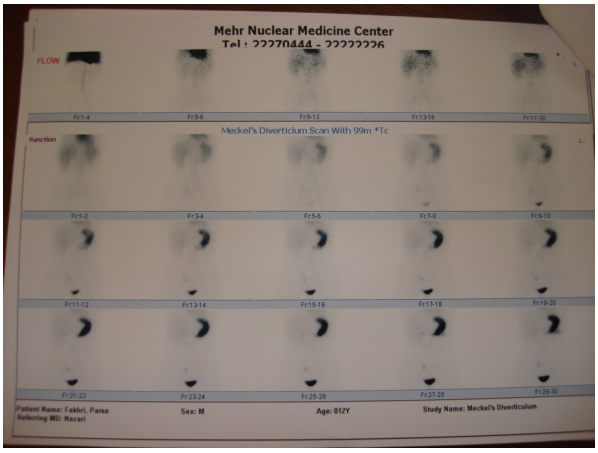

Figure 1: The pathology of Meckel's diverticulum.

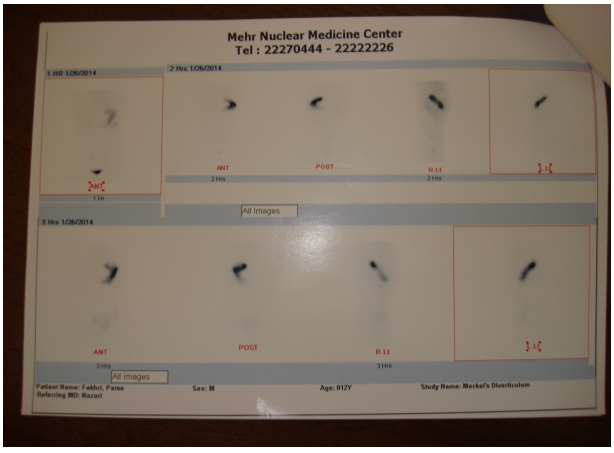

Figure 2: The pathology of tissue suggested Meckel's diverticulum.

Patient was admitted in ICU because of pallor and hematochezia and after done hydration therapy and started infusion pack cell because of hemoglobin decreased up to 6. Then endoscopy and colonoscopy was done and were normal so Meckel's scan was done for patient after use of cimetidine for 3 days and Meckel's scan was positive for Meckel's diverticulum (Figures 1-4) He operated without any complication then exit.

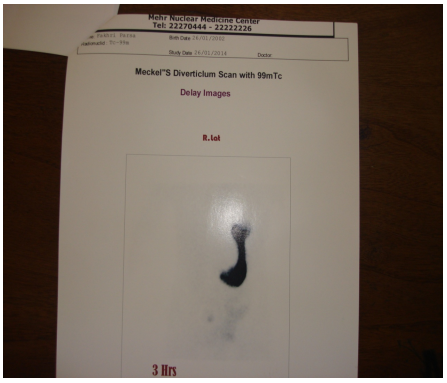

Figure 3: Meckel's scan positive report.

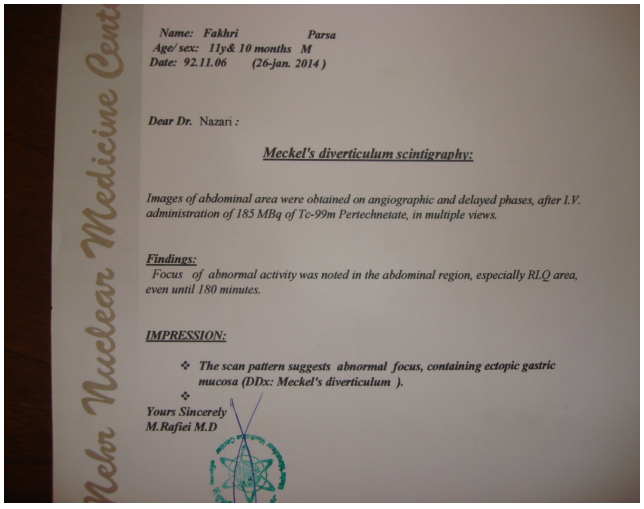

Figure 4: Angiographic and delayed phases.

Discussion

Meckel's diverticulum is present in 2% of individuals, males develop symptoms twice as often as females do, children younger than 2 years old more commonly develop symptom, location is 2 feet proximal to the ileocecal valve, the average length is 2 inches, and a Meckel's diverticulum contains two types of ectopic tissue [1-2].

It may be the cause in any patient who presents with bowel obstruction, lower gastrointestinal bleeding or intussusception. The index of suspicion should be highest in children younger than age 4 who present with intestinal obstruction and no prior history of abdominal surgery [4-5].

Meckel's diverticulum may be clinically silent or become symptomatic at any age. Children younger than 4 years are at greatest risk of having a symptomatic Meckel's diverticulum. Less common presentation includes acute inflammation or Meckel's diverticulitis, umbilical anomalies, and litter's hernia [7].

The most common presentation during the new born period is intestinal obstruction. Bowel obstruction in these children is usually caused by small bowel volvulus around a meso diverticular band, intussusception with Meckel diverticulum as the lead point or rarely prolapse of intestine through a patent vitelline fistula. Acute inflammation resulting from Meckel diverticulitis is also possible and is usually clinically indistinguishable from acute appendicitis [7].

Tumors may arise in Meckel diverticulum but this is highly unusual in children carcinoid tumor is the most common malignancy found in this location [7].

Patients with a high clinical suspicion for the diagnosis of Meckel diverticulum and a negative Meckel's scan should be considered candidates for diagnostic laparoscopy given that a Meckel's scan has a relatively low sensitivity [5-7].

Our patient 11 years old with hematochezia and anemia that Meckel's scan was positive for Meckel's diverticulum so surgery was done without any complication therefor in any patient with gastrointestinal bleeding without any reason should be do Meckel's scan for Meckel's diverticulum.

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