INTRODUCTION

The major causes of bleeding from the gastrointestinal (GI) tract in the adult population originate proximal to the ligament of Trietz (80%). Bleeding from the lower GI tract is usually from the colon, with less than 5% of bleeding from the small intestine. Regardless of origin, localization of the bleeding site requires meticulous diagnosis. Here we present a 31-year-old male patient with recurrent, painless lower gastrointestinal bleeding of obscure origin. The patient underwent an extensive GI workup. Finally, Meckle’s diverticulum (MD) was diagnosed with a Technetium 99m-pertechnate scan.

CASE

The patient presented with the complaint of sudden onset of bright red blood per rectum. He had a similar episode of massive GI bleeding three years prior. Upper and lower GI endoscopies and capsule endoscopies were normal. Tagged nuclear red blood cell (RBC) scan, abdominal aortogram, selective superior mesenteric, inferior mesenteric and celiac arteriograms did not localize the source of bleeding. He required 11 units of packed red blood cells and intravenous fluids for stabilization.

With the current episode of lower GI bleeding, the patient underwent upper endoscopy, which was negative, and a tagged RBC scan. The scan revealed a focal area of red cell activity and movement in the lateral
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A CASE REPORT

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side of the right abdomen. Given the position, the patient underwent a colonoscopy to rule out the ascending colon as the site of the bleed. It was negative. He then underwent a Technetium 99m-pertechnate scan that showed focal activity in the right hemipelvis, medial to the iliac vessels. The findings were consistent with gastric mucosa containing Meckel’s diverticulum (Figures 1, 2). The patient subsequently underwent laparoscopic resection of his Meckel’s diverticulum (Figures 3, 4).

DISCUSSION

Meckel’s diverticulum (MD) is the most common congenital abnormality of the GI tract resulting from incomplete obliteration of the omphalomesenteric or vitelline duct. With the presence of all three layers of the intestinal wall, MD is considered a true diverticulum. This congenital anomaly follows “rule of 2’s” i.e., is seen in 2% of the general population, approximately two inches in length and two feet proximal to the ileocecal valve. It rarely is symptomatic with a lifetime complication rate of 4% to 6% with a male to female preponderance of 3:1 (1). The major complications include bleeding, obstruction, intussusception, and inflammation.
Fifty percent to eighty percent of MD contains gastric mucosa.

In adults with painless, recurrent lower GI bleeding, colonoscopy is the diagnostic procedure of choice. If negative, a tagged RBC scan should be performed if the patient is thought to have an active ongoing bleed. Similarly, angiography requires a bleeding rate of at least 0.5 mL/min to be positive (1). Gastric mucosa readily shows free technetium uptake and thus reveals the presence of ectopic tissue (2). However, it has 60% sensitivity and 95% specificity in the detection of ectopic gastric mucosal uptake in the adult population. Surgical resection remains the permanent cure for a bleeding MD.

Here we are highlighting the importance of a Technetium 99m-pertechnate scan in the evaluation of painless recurrent lower GI bleeding. Recurrent bleeds in adult patients with negative endoscopy and a tagged RBC scan, should be evaluated with a Technetium 99m-pertechnate scan for diagnosing the potentially curable etiology of MD.

References