

Capsule Retention in Meckel's Diverticulum During Evaluation for Iron Deficiency Anemia

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CASE REPORT

A 59-year-old man with a history of treated, nonintestinal follicular lymphoma presented to gastroenterology clinic for refractory chronic iron deficiency anemia (IDA) initially discovered 8 years earlier and believed to be due to obscure, occult gastrointestinal bleeding. Hemoglobin was 12 g/dL, and ferritin was 18.4 ng/mL. Bidirectional endoscopy was normal. Video capsule endoscopy (VCE) revealed a “double lumen” with ulceration in the ileum and no visible enteroliths (Figure 1). Notably, the capsule did not enter the cecum. A computed tomography scan showed the capsule within a blind pouch (Figure 2), confirming a Meckel's diverticulum (MD). Interestingly, this MD was not noted on previous radiological examinations. The patient began parenteral iron therapy with normalization of his hemoglobin and ferritin. Surgical diverticulectomy was delayed for personal reasons, and repeat imaging 6 months after the initial scan revealed that the capsule had spontaneously passed (Figure 2).

MD is a congenital diverticular out-pouching of the small bowel and is the most frequent anomaly of the gastrointestinal tract. MD often presents as overt bleeding or obstruction in adult patients. However, in rare cases, MD can be associated with occult bleeding and therefore can be an overlooked cause of chronic IDA. VCE has emerged as a safe, highly effective method of diagnosing symptomatic MD, especially when it presents with occult or overt gastrointestinal bleeding.¹ VCE may also reduce the need for specialized scans to diagnose MD. A previous case report described an adult patient presenting with obstructive symptoms and negative technetium and computed tomography scans, yet ultimately found to have an MD on VCE.² However, endoscopists should be prepared to recognize the “double lumen” sign, which can occur with or without ulceration.³ With proper experience, VCE has

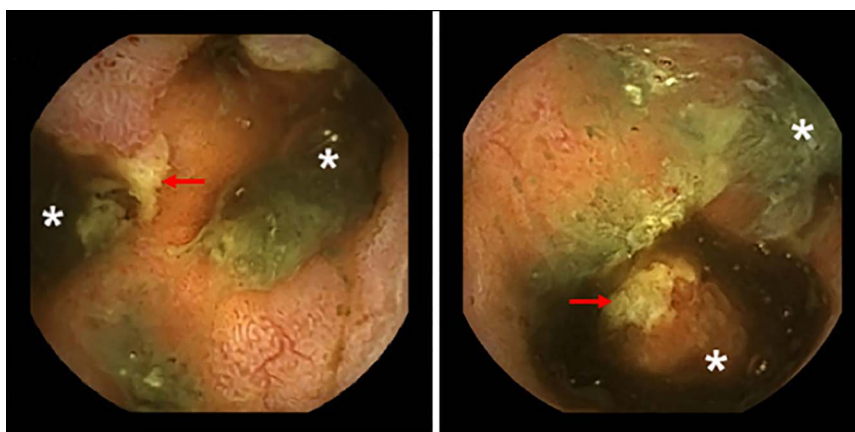


Figure 1. Image of patient's ileum with video capsule endoscopy. Seen is the double lumen (asterisks) and associated ulceration (red arrows) and surrounding inflammation. The ulceration and inflammation were believed to be the most likely etiology of slow blood loss over time. Double lumen is the most frequent characteristic video capsule endoscopy finding of Meckel's diverticulum reported in the literature, and it can be present with or without ulceration.

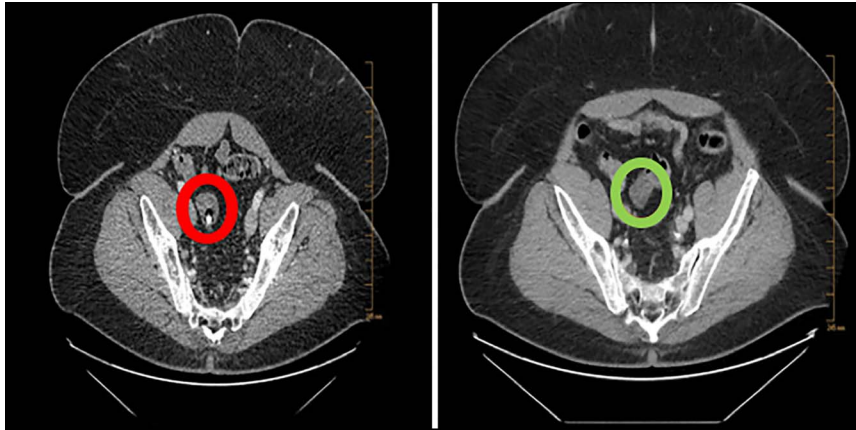


Figure 2. Computed tomography (CT) scan image showing the capsule retained within a MD (red circle). Image of follow-up CT scan 6 months later showing the same MD (green circle) indicating spontaneous passage of the previously retained capsule. MD, Meckel's diverticulum.

been shown to have a high positive predictive value for diagnosing MD, suggesting that VCE may be adequate in the initial workup for patients in whom MD is suspected.⁴

Capsule retention within MD is uncommon, and as this case demonstrates, VCE may eventually pass spontaneously. In fact, retained capsules are often asymptomatic with reports of such capsules passing spontaneously after 1 to 7 months.⁵ Although MD may increase the risk of VCE retention, suspicion for MD should not be a contraindication, given VCE's high diagnostic yield for small bowel sources of IDA. Regardless, if the VCE fails to pass, the treatment for both retained capsule and symptomatic MD includes surgical resection.³

DISCLOSURES

Author contributions: MG Noujaim wrote the manuscript and subsequent revisions as well as prepared the final images. J. Cohn and BA Sullivan saw the patient in clinic. JC interpreted the capsule endoscopy images. J. Cohn and BA Sullivan reviewed and proofread all versions of the manuscript. BA Sullivan is the article guarantor.

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Department of Veterans Affairs or the government of the United States.

Informed consent was obtained from the patient for the publication of their information and imaging.

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