ECRONICON OPEN ACCESS

EC EMERGENCY MEDICINE AND CRITICAL CARE

Case Report

Wireless Capsule Endoscopy Detects Ectopic Small Bowel Varices

Petkov A, Vassil Mihaylov*, Stankova T, Stoyanova D and Lukanova Tz

HPB and Transplant Surgery, Military Medical Academy, Sofia, Bulgaria

***Corresponding Author**: Vassil Mihaylov, Assistant Professor, HPB and Transplant Surgery, Military Medical Academy, Sofia, Bulgaria.

Received: September 17, 2018; **Published:** October 31, 2018

Abstract

Background: Ectopic varices are large portosystemic collaterals in locations other than the gastroesophageal region and are uncommon causes of GI bleeding. They account for approximately 5% of variceal bleeds. They are most commonly associated with portal hypertension or abdominal surgery [1].

Case Report: We report on a 43 year old male with recurrent obscure overt gastrointestinal bleeding. For the period between 2003-2015 he underwent thorough examination due to episodes of melena but without any significant findings. In 2016 we performed another wireless capsule endoscopy (WCE), isolated varices of the jejunum were detected. A single balloon enteroscopy (SBE) and endoscopic ultrasound (EUS) confirmed the findings and cyanoacrylate sclerosation was performed. During a one year follow up the patient has no complaints or recurrent bleeding.

Conclusion: Wireless Capsule endoscopy (WCE) is considered a first-line investigation for obscure GI bleeding (OGIB) and small-bowel polyp or tumor detection. Imaging modalities, such as balloon enteroscopy (BE), CT enterography (CTE) or magnetic resonance enterography (MRE) now provide complementary roles to WCE for these indications [2].

Keywords: *Small Bowel Varices; Ectopic Small Bowel Varices; Wireless Capsule Endoscopy (WCE); Obscure Gastrointestinal Bleeding (OGIB)*

Introduction

Small bowel varices are large, portosystemic venous collaterals occurring in the small intestine, they are relatively rare and approximately 5% are related to gastrointestinal bleeding. They are most commonly associated with portal hypertension or abdominal surgery and are uncommon causes of GI bleeding. Their presence is rarely associated with chronic superior mesenteric vein thrombosis and hereditary coagulopathies. They pose a clinical dilemma for the physician, given their diagnostic obscurity and the lack of evidence-based medicine to guide therapy [3].

Our case report describes a 43-year-old male with recurrent episodes of melena for more than 10 years. Extensive evaluation was performed throughout the years as well as a right hemicolectomy and two segmental resections of the small bowel due to dilated venous vessels. WCE achieved the detection of ectopic small bowel varices and a cyanoacrylate sclerotherapy in combination with EUS were performed.

Case Report

A 43 year old male patient with recurrent OGIB episodes was referred for investigation. He had a right hemicolectomy in 2003 due to dilated venous vessels of the ascending colon. In 2005 he had another OGIB episode which led to substantial drop of his hemoglobin and subsequent blood transfusions. Upper endoscopy, colonoscopy, WCE, Meckel scan and angiography were performed - they detected

no significant findings. In 2011 another overt OGIB episode led to a drop of his hemoglobin to 5.6 g/dl. CT angiography showed clusters of dilated venous vessels. Intraoperative enteroscopy detected no active bleeding. Segmental small bowel resections with latero-lateral jejuno-jejunal anastomosis and ileo-ileal anastomosis were performed. In 2016 another OGIB episode led to WCE, which detected isolated varices of the jejunum near the anastomosis (Figure 1) without active bleeding at the time of the procedure (Figure 2). SBE (Figure 3) and EUS (Figure 4) were performed and the varices were confirmed. Cyanoacrylate sclerosation was performed with an excellent outcome (Figure 5). In a period of one year follow-up the patient has had no recurrent OGIB episodes.

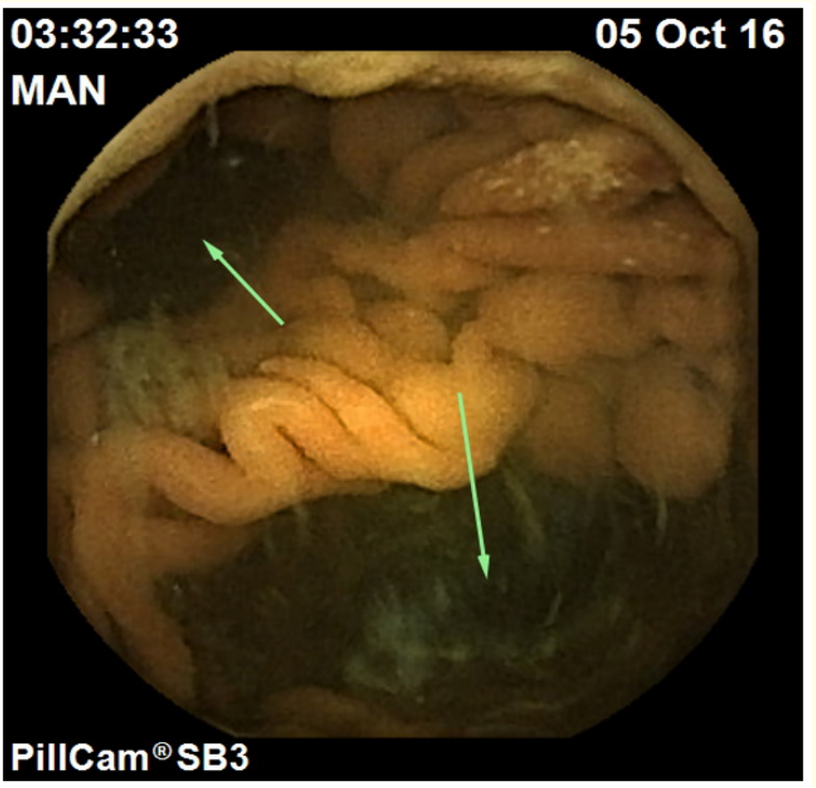

Figure 1

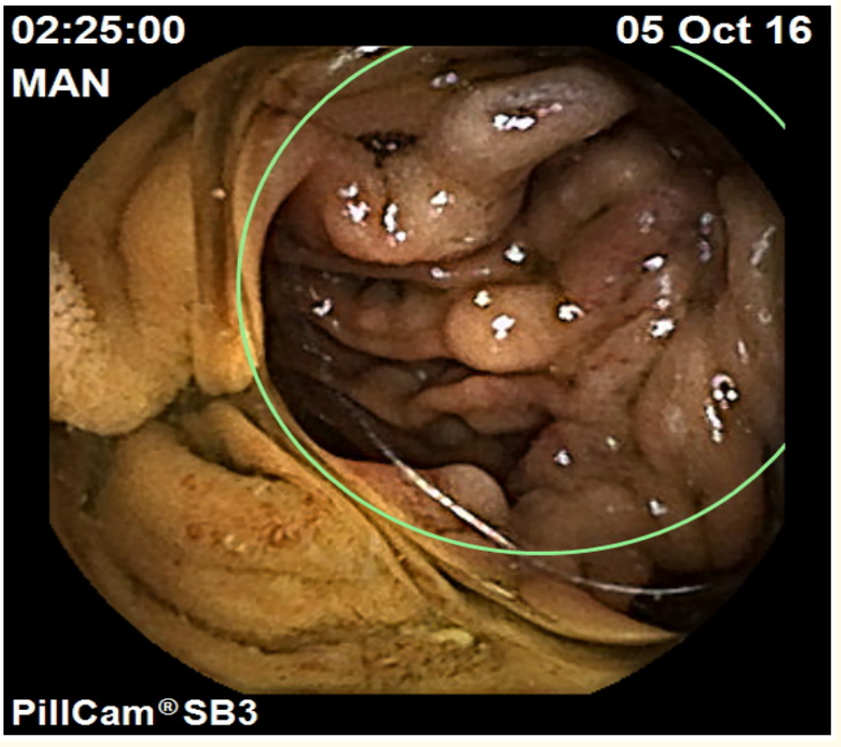

Figure 2

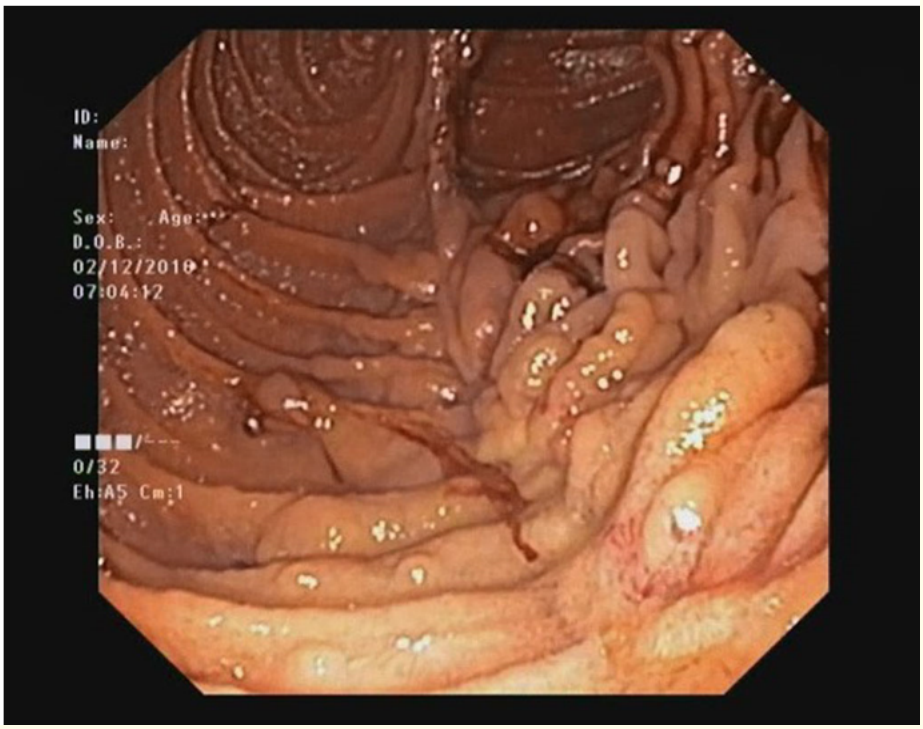

Figure 3

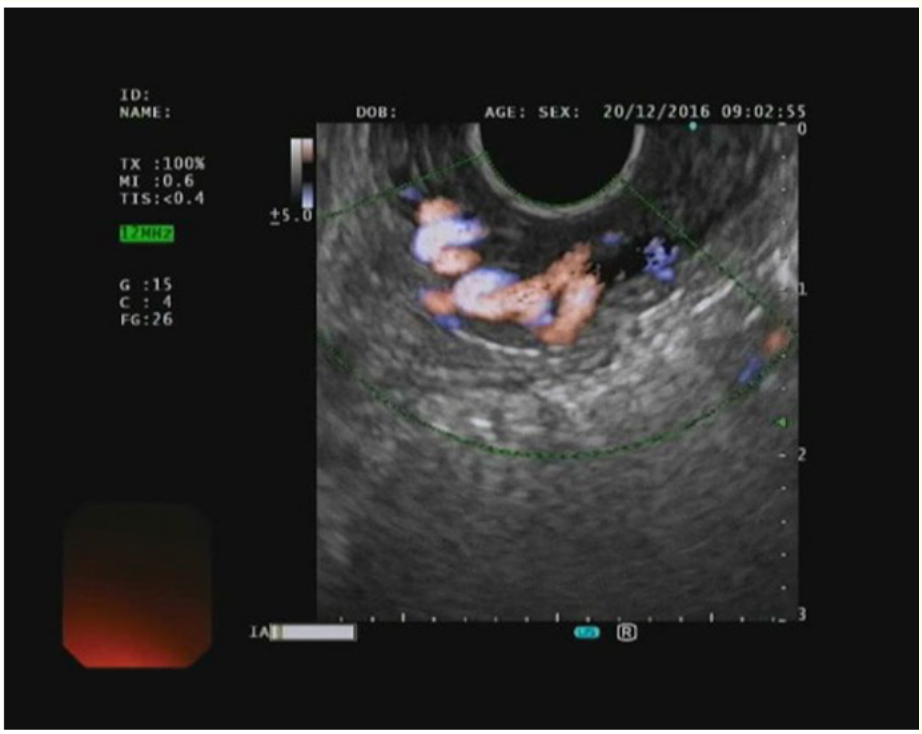

Figure 4

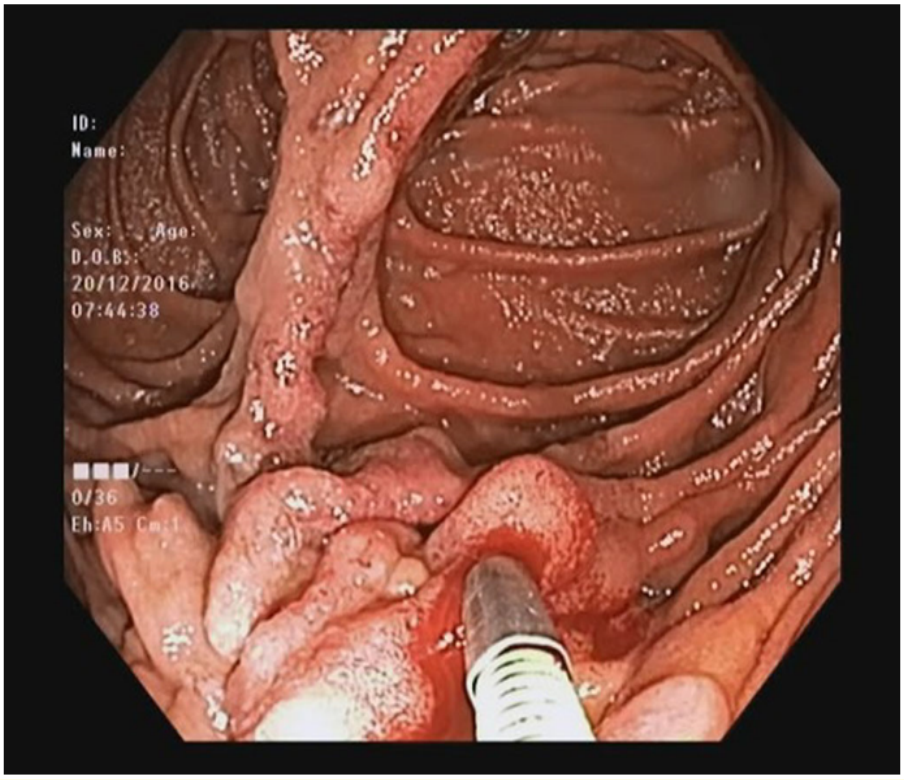

Figure 5

Discussion

Wireless Capsule endoscopy (WCE) is considered a first-line investigation for obscure GI bleeding (OGIB) and small-bowel polyp or tumor detection. The reliability of a negative CE in excluding gross small-bowel pathology remains unclear. New imaging modalities, such as double-balloon enteroscopy (DBE), CT enterography (CTE) or magnetic resonance enterography (MRE) now provide complementary roles to CE for these indications [2]. Investigations of the small intestine, including radiographic contrast studies, nuclear scans, angiography, capsule endoscopy and balloon enteroscopy have been used to diagnose jejunal varices. Capsule endoscopy, which is relatively non-invasive, was a suitable investigation for this patient. Capsule endoscopy is being used increasingly to investigate GI bleeding of obscure origin and disorders of the small bowel. Tang SJ et al. found small bowel varices in four out of 46 patients (8.7%) who underwent capsule endoscopy for obscure GI bleeding. They reported that capsule endoscopy is invaluable and highly sensitive for the detection of small bowel variceal bleeding [4]. Triester SL., *et al.* reported that capsule endoscopy was shown to be superior to push enteroscopy in a meta-analysis, although it has limitations in its inability to therapy [5]. The initial management of bleeding from jejunal varices involves hemodynamic stabilization with correction of anemia and coagulopathy. Otherwise, surgical or endoscopic interventions such as variceal ligation or cyanoacrylate sclerosation can be performed. Regardless of treatment type, WCE can be used to recognize the need for specific medical treatment or further interventions and evaluate the post-therapeutic effect [6].

Conclusion

Small intestinal varices are rare causes of OGIB. WCE is considered as a first-line investigation but CT angiography, device assisted enteroscopy (DAE), CT enterography (CTE) or magnetic resonance enterography (MRE) could provide complementary roles to the final diagnosis. They can serve as a road map to decide subsequent therapeutic interventions and evaluate the treatment effect. The correct diagnostic algorithm relies on a good understanding of the type of GI bleeding, risk evaluation and clinical presentation which may indicate the nature and source of bleeding. Upper endoscopy and colonoscopy are the mainstay of initial investigations. Angiography and radionuclide imaging are best suited for acute overt GI bleeding. Capsule endoscopy and deep enteroscopy play significant roles in the diagnosis of obscure GI bleeding, usually from the small bowel [7].

Bibliography

1. Woo JG., *et al*. "A case of superior mesenteric venous thrombosis due to protein C deficiency in a patient with duodenal ulcer bleeding". *Korean Journal of Gastroenterology* 57.1 (2011): 34-37.

2. Postgate A., *et al*. "Significant small-bowel lesions detected by alternative diagnostic modalities after negative capsule endoscopy". *Gastrointestinal Endoscopy* 68.6 (2008): 1209-1214.

3. Hoshiai A., *et al*. "A rare case of obscure gastrointestinal bleeding: Small bowel varices flowing into the inferior epigastric vein". *Ulus Travma Acil Cerrahi Derg* 23.3 (2017): 266-268.

4. Tang SJ., *et al*. "Diagnosis of small-bowel varices by capsule endoscopy". *Gastrointestinal Endoscopy* 60.1 (2004): 129-135.

5. Triester SL., *et al*. "A meta-analysis of the yield of capsule endoscopy compared to other diagnostic modalities in patients with obscure gastrointestinal bleeding". *American Journal of Gastroenterology* 100.11 (2005): 2407-2418.

6. Park CW., *et al*. "A case of variceal bleeding from the jejunum in liver cirrhosis". *Clinical and Molecular Hepatology* 19.1 (2013): 78-81.

7. Kim BSM., *et al*. "Diagnosis of gastrointestinal bleeding: A practical guide for clinicians". *World Journal of Gastrointestinal Pathophysiology* 5.4 (2014): 467-478.

Volume 2 Issue 3 November 2018