

Case Report

Access this article online
Quick Response Code:

Website: www.ijhonline.org
DOI: 10.4103/ijh.ijh_4_17

Diagnosing jejunal adenocarcinoma in a man with severe iron deficiency anemia using pediatric colonoscopy set

Bakhtyar F. Salem, Najmaddin Khoshnaw^{1,2}, Mohamed Alshekhani

Abstract:

Bleeding from the small intestine is an uncommon condition, of about 5%–10% of all gastrointestinal (GI) hemorrhages. Small intestinal malignancies (SIMs) are very rare, accounting for only 1% of the whole GI malignancies. SIM has few and nonspecific symptom and signs as iron deficiency anemia, weight loss, abdominal pain, and upper and lower GI bleeding. Usually, the diagnosis was delayed and most of them present in advances stage. GI stromal tumor, adenocarcinoma, carcinoid tumor, and lymphomas are among the common malignancies. Diagnosis of such cases is difficult as the upper and lower GI endoscopy often normal, capsule visualized endoscopy may show bleeding site and lesion, biopsy also a difficult issue as in our case. Here, we present a 44-year-old male patient who complained of lethargy and fatigue for 2 months duration. On physical examination, he was unremarkable apart from pallor. The initial investigations showed moderate hypochromic microcytic anemia, with low serum iron studies. The stool examination for occult blood was positive for that we did upper and lower GI endoscopy which was normal. On capsule visualized endoscopy revealed a bleeding small intestinal lesion (jejunum) later, we used pediatric colonoscopy for deep enteroscopy which was successful in identifying the lesion and biopsy took from the lesion confirming the diagnosis of GI adenocarcinoma. Surgical removal of tumor performed and the patient treated by oncologist after proper staging had been done. We emphasized that successful use of other diagnostic tools as using pediatric colonoscopy set for diagnosing such rare tumor is an option.

Keywords:

Adenocarcinoma, colonoscopy, endoscopy, iron deficiency anemia, small bowel malignancy

Introduction

Small intestine bleeds remains a relatively uncommon condition, occluding 5%–10% of all cases admitted with gastrointestinal (GI) hemorrhages.^[1] New progressions appeared in diagnosing intestinal bleeds such as video capsule endoscopy (VCE), radiographic imaging, and deep enteroscopy. These new techniques are very useful in finding the site of bleeding in small intestinal. For that reason, the term obscure intestinal bleeding is reserved for that condition were the site of bleeding could not be visualized even by above new advances.^[2] Small intestinal bleeding should be considered in those patients negative upper and

lower endoscopy, with the normal second diagnostic look by push enteroscopy, and or colonoscopy.^[3] Small intestinal first-line investigation is VCE.^[4] Any types of deep enteroscopy such as colonoscopy in our case (although better results can be obtained using balloon enteroscopy) can be performed when endoscopic examination and treatment are required. Video capsule endoscopy (VCE) better to be done before doing deep enteroscopy if there is no contraindication. If we suspect obstruction before or after negative VCE, we must do computed tomographic enterography (CTE).^[5,6] Angiography should be performed emergently when there is acute overt hemorrhage in the

Department of Medicine,
Faculty of Medical
Sciences, School of
Medicine, University of
Sulaimani, ¹Department
of Hematology, Hiwa
Hospital, Sulaymaniyah,
²Department of
Hematology, KBMS,
Ministry of Higher
Education, Erbil,
Kurdistan Region, Iraq

Address for correspondence:

Dr. Najmaddin Khoshnaw,
Hiwa Hospital,
P. O. Box: 54,
Al-Sulaymaniyah Postal
Office, Sulaymaniyah,
Kurdistan Region, Iraq.
E-mail: najmaddin_salih@
yahoo.com

Submission: 17-01-2017

Accepted: 13-03-2017

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

How to cite this article: Salem BF, Khoshnaw N, Alshekhani M. Diagnosing jejunal adenocarcinoma in a man with severe iron deficiency anemia using pediatric colonoscopy set. *Iraqi J Hematol* 2017;6:21-3.

unstable patient.^[7] Multiphasic computed tomography should be performed after VCE or CTE to identify the source of bleeding to guide further management in patients with occult hemorrhage or stable patients with active overt bleeding.^[8-10] Endoscopic therapy is regarded as an important option in patients with on-going anemia and or active bleeding.^[11] Supportive treatment should be done for those who have negative examinations and no active bleeding, whereas in the case of active continuous bleeding rechecking and re-examinations are mandatory.^[12,13]

The intestinal epithelium has a self-renewing capacity, totally replaced in a few days. The carcinogenesis seems to be related to the bacteria-host interaction, with secondary changes in the intestinal stem cell function.^[14] Primary small intestinal malignancies are usually diagnosed at a late stage, due to nonspecific complaints related to the nature of the disease among the first presentations of such tumors may be an acute medical emergency. While in a symptomatic disease, more than half of the patients present with a metastatic condition.^[15,16] Chronic inflammation and hyperproliferation of the intestinal stem cells usually initiate malignant transformation.^[17]

Histologically, many types of neoplasm occur in the small bowel, among the common subtypes are GI stromal tumors, adenocarcinomas, carcinoids, or lymphomas.

Fortunately, malignant tumors of the small bowel are uncommon, and the 5-year overall survival rate for most cancers are improved from 30% to 66% between 1975 and 2006.^[18]

According to the surveillance, epidemiology, and end results stat fact sheets, the estimated new cases of small intestinal cancer for 2015 was 2.2 per 100,000 men and women per year, with almost 66.9% of the patients are alive at 5 years.^[19]

Case Report

A 44-year-old male patient presented with iron deficiency anemia and melena. There was no previous medical or any surgical history. All laboratory investigation was normal apart from microcytic hypochromic anemia for which he received venofer infusion for the past 3 months. Both upper and lower GI tract endoscopy was normal. VCE revealed active small intestinal bleeding [Figure 1]. We used pediatric colonoscopy for deep enteroscopy which was successful in identifying a bleeding tumor with the biopsy confirming an adenocarcinoma. Surgery was performed to remove the bleeding tumor [Figure 2], and the histopathology of the removed segment confirmed the adenocarcinoma [Figure 3a-d]. The patient was appropriately managed by oncologist after proper staging.

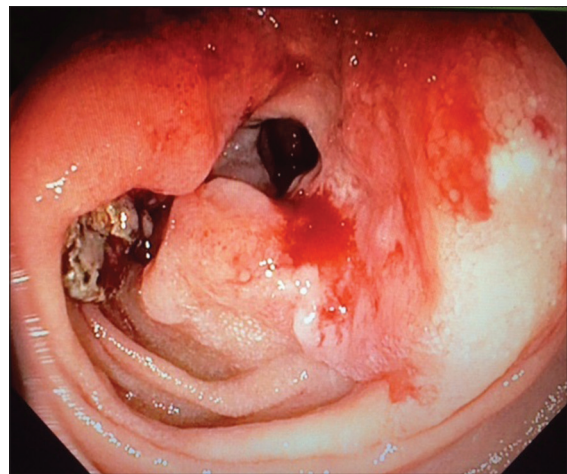


Figure 1: Video capsule endoscopy revealed active small intestinal bleeding



Figure 2: Pediatric colonoscopy for deep enteroscopy which was successful in identifying a bleeding tumor

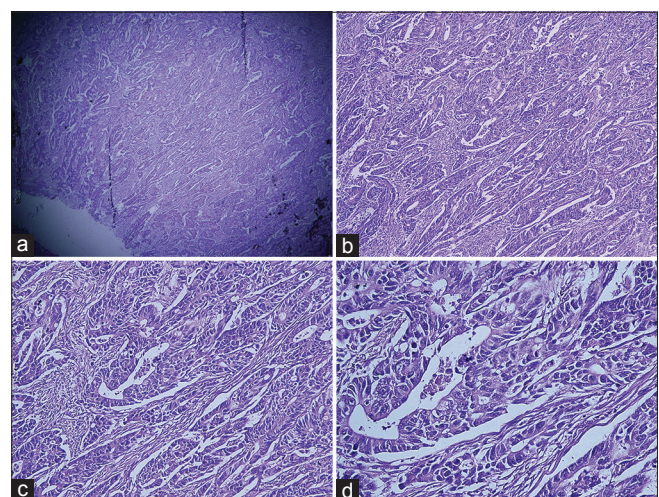


Figure 3: (a) Intestinal biopsy lesion showing intestinal adenocarcinoma (H and E, $\times 4$), (b) intestinal biopsy lesion showing intestinal adenocarcinoma (H and E, $\times 10$), (c) intestinal biopsy lesion showing intestinal adenocarcinoma (H and E, $\times 20$), (d) intestinal biopsy lesion showing intestinal adenocarcinoma (H and E, $\times 40$)

Conclusion

Bleeding secondary to small bowel malignancies are associated with minimum signs and symptoms, and often their diagnoses are delayed. Upper GI endoscopy using pediatric colonoscopy set may be a useful tool in early diagnosis and treatment of small bowel malignancies. The early diagnosis will affect overall survival and mortality rate.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

- Gerson LB, Fidler JL, Cave DR, Leighton JA. ACG Clinical Guideline: Diagnosis and management of small bowel bleeding. *Am J Gastroenterol* 2015;110:1265-87.
- Lau WY, Fan ST, Wong SH, Wong KP, Poon GP, Chu KW, *et al.* Preoperative and intraoperative localisation of gastrointestinal bleeding of obscure origin. *Gut* 1987;28:869-77.
- Longstreth GF. Epidemiology and outcome of patients hospitalized with acute lower gastrointestinal hemorrhage: A population-based study. *Am J Gastroenterol* 1997;92:419-24.
- Guyatt GH, Oxman AD, Vist GE, Kunz R, Falck-Ytter Y, Alonso-Coello P, *et al.* GRADE: An emerging consensus on rating quality of evidence and strength of recommendations. *BMJ* 2008;336:924-6.
- Pasha SF, Leighton JA, Das A, Harrison ME, Decker GA, Fleischer DE, *et al.* Double-balloon enteroscopy and capsule endoscopy have comparable diagnostic yield in small-bowel disease: A meta-analysis. *Clin Gastroenterol Hepatol* 2008;6:671-6.
- Mylonaki M, Fritscher-Ravens A, Swain P. Wireless capsule endoscopy: A comparison with push enteroscopy in patients with gastroscopy and colonoscopy negative gastrointestinal bleeding. *Gut* 2003;52:1122-6.
- Norton ID, Petersen BT, Sorbi D, Balm RK, Alexander GL, Gostout CJ. Management and long-term prognosis of Dieulafoy lesion. *Gastrointest Endosc* 1999;50:762-7.
- Sone Y, Kumada T, Toyoda H, Hisanaga Y, Kiriya S, Tanikawa M. Endoscopic management and follow up of Dieulafoy lesion in the upper gastrointestinal tract. *Endoscopy* 2005;37:449-53.
- Romãozinho JM, Pontes JM, Lérias C, Ferreira M, Freitas D. Dieulafoy's lesion: Management and long-term outcome. *Endoscopy* 2004;36:416-20.
- Schmulewitz N, Baillie J. Dieulafoy lesions: A review of 6 years of experience at a tertiary referral center. *Am J Gastroenterol* 2001;96:1688-94.
- Mitsui K, Tanaka S, Yamamoto H, Kobayashi T, Ehara A, Yano T, *et al.* Role of double-balloon endoscopy in the diagnosis of small-bowel tumors: The first Japanese multicenter study. *Gastrointest Endosc* 2009;70:498-504.
- Cangemi DJ, Patel MK, Gomez V, Cangemi JR, Stark ME, Lukens FJ. Small bowel tumors discovered during double-balloon enteroscopy: Analysis of a large prospectively collected single-center database. *J Clin Gastroenterol* 2013;47:769-72.
- Pennazio M, Santucci R, Rondonotti E, Abbiati C, Beccari G, Rossini FP, *et al.* Outcome of patients with obscure gastrointestinal bleeding after capsule endoscopy: Report of 100 consecutive cases. *Gastroenterology* 2004;126:643-53.
- van der Flier LG, Clevers H. Stem cells, self-renewal, and differentiation in the intestinal epithelium. *Annu Rev Physiol* 2009;71:241-60.
- Negoi I, Paun S, Hostiuc S, Stoica B, Tanase I, Negoi RI, *et al.* Most small bowel cancers are revealed by a complication. *Einstein (Sao Paulo)* 2015;13:500-5.
- Talamonti MS, Goetz LH, Rao S, Joehl RJ. Primary cancers of the small bowel: Analysis of prognostic factors and results of surgical management. *Arch Surg* 2002;137:564-70.
- Sun J. Enteric bacteria and cancer stem cells. *Cancers (Basel)* 2010;3:285-97.
- Shenoy S. Primary small-bowel malignancy: Update in tumor biology, markers, and management strategies. *J Gastrointest Cancer* 2014;45:421-30.
- Available from: <http://www.seer.cancer.gov/statfacts/html/smint.html>. [Last accessed on 2016 Dec 13].