

Letters to the Editor

Computed tomography angiography (CTA) in the diagnosis of an infrequent cause of gastrointestinal bleeding

Key words: Occult gastrointestinal bleeding. Angiography. Gastrointestinal tumor.

Dear Editor,

Gastrointestinal bleeding of obscure origin (GIB-OO) is defined as clinically manifest gastrointestinal bleeding that persists or recurs without identification of the cause after a complete upper and lower gastrointestinal endoscopy (UGIE and colonoscopy). It often poses a diagnostic and therapeutic challenge for the clinic that needs a good coordination between gastroenterologists, interventional radiologists and surgeons. We present a case of OGIB-OO secondary to a gastrointestinal stromal tumor (GIST) that bears out the importance of including CT angiography in the diagnosis of a GIB-OO.

Case report

A 66-year-old woman presented intermittent episodes of melena during the last year. The initial study with UGIE and colonoscopy was normal. She returned with a new episode of melena with anemia. UGIE and colonoscopy were performed once again, as well as intestinal transit followed by endoscopic capsule procedure (CE), without any remarkable findings. Based on a clinical diagnosis of OGIB-OO, CT angiography was requested, which resulted in the following report: "solid lesion,

of increased uptake, measuring 3.3 x 4.4 x 4.3 cm, with exophytic growth from the lumen of a jejunal loop and vascular hypertrophy of the feeder vessels draining directly into the mesenteric artery branches, suggestive of GIST without evidence of adenopathy" (Fig. 1). The patient underwent surgery with segmentary resection of the mid-jejunum. Histological and immunohistochemical study: GIST of low-grade malignancy: size < 5 cm, < 1 mitosis/10 high-power fields, muscular differentiation, and < 1 Ki-67 proliferative index. Complete resection of this tumor without metastatic effect indicates that there is no need for subsequent pharmacological treatment with tyrosine kinase inhibitors (imatinib). Three months later the patient was asymptomatic.



Fig. 1. CT angiography: solid lesion about 4 cm, situated in small intestine with exophytic growth.

Discussion

GIST is the second most common cause of OGIB-OO, and in most cases it is a casual finding (1,2). The symptomatic cases tend to be larger tumors that often manifest as episodes of acute or chronic gastrointestinal bleeding with a high degree of vascularization and predominant exophytic growth, leading to mucosal erosion (3,4). As in other cases described in the literature, the study with UGIE, colonoscopy, and endoscopic capsule did not yield a diagnosis in the case of our patient, since the tumors were growing like a large pedicle from the intestinal wall outward, which meant that they often escaped detection in the endoscopic study of OGIB-OO (2,4,5-9).

Recently, the use of CT angiography in the study of OGIB-OO has become widespread, having proved a diagnostic yield of > 80% (8). It is a procedure that requires no special preparation, offers a high degree of sensitivity in the diagnosis of active bleeding (even flowing at rates as low as 0.5 ml/min), detects vascular abnormalities, and above all, diagnoses intestinal wall tumors as small as 1-2 cm (10). In our case, CT angiography provided a pre-surgical diagnosis, thus avoiding the need for intraoperative endoscopy and consequent risk for increased surgical morbidity.

CT angiography is therefore a promising non-invasive diagnostic method that should be established as first-line technique in the diagnostic algorithm of OGIB-OO.

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