Ileal metastasis of a Colorectal Carcinoma in an asymptomatic patient confirmed by Single-Balloon Enteroscopy

C. Bernardes[1], R. Pinho[2], A. Rodrigues[2], L. Proença[2], A. Ponte[2], J. Silva[2], J. Rodrigues[2], M. Sousa[2], J. Carvalho[2]

(1) Department of Gastroenterology, Centro Hospitalar de Lisboa Central ; (2) Department of Gastroenterology, Centro Hospitalar de Vila Nova de Gaia/Espinho, Portugal.

To the Editor,

Malignant neoplasms of the small bowel are unusual and often constitute a diagnostic and therapeutic challenge. Metastatic small bowel lesions, which are extremely uncommon, usually arise from lung, breast or gastric cancer; metastases originating from a primary colon cancer are particularly rare (1). Involvement of the small bowel usually occurs due to local invasion or peritoneal dissemination, rarely emerging from a direct hematogenous route (1). Small intestine metastases are usually revealed through bowel obstruction or bleeding, being rarely asymptomatic; hence, diagnosis almost always occurs during surgical procedures in an emergency setting (2). In asymptomatic patients, whose lesions are identified preoperatively, the diagnosis can be particularly defiant. We present the case of a female patient with a past history of colorectal carcinoma who developed a small bowel metastasis while asymptomatic. Balloon-assisted enteroscopy had a crucial role since it allowed prompt recognition and characterization of the lesion, thus enabling a proper therapeutic strategy which included preoperative chemotherapy.

Case report:

A 63-year-old woman was diagnosed 4 years earlier with an adenocarcinoma of the sigmoid colon with liver metastasis. She received first-line and second-line neoadjuvant chemotherapy, with capecitabine + oxaliplatin (XELOX) and cetuximab+irinotecan, respectively. Subsequent magnetic resonance imaging (MRI) and positron emission tomography-computed tomography (PET-CT) scans detected no secondary lesions. Thus, the patient was referred for surgical resection of the primary lesion (R0 on microscopic examination) and adjuvant chemotherapy with folinic acid+fluorouracil+oxaliplatin (FOLFOX). After about 16 months of clinical and imaging remission, while asymptomatic, she underwent a MRI followed by a PET-CT scan which described a focus of hyperuptake in a small bowel loop on the left lower quadrant of the

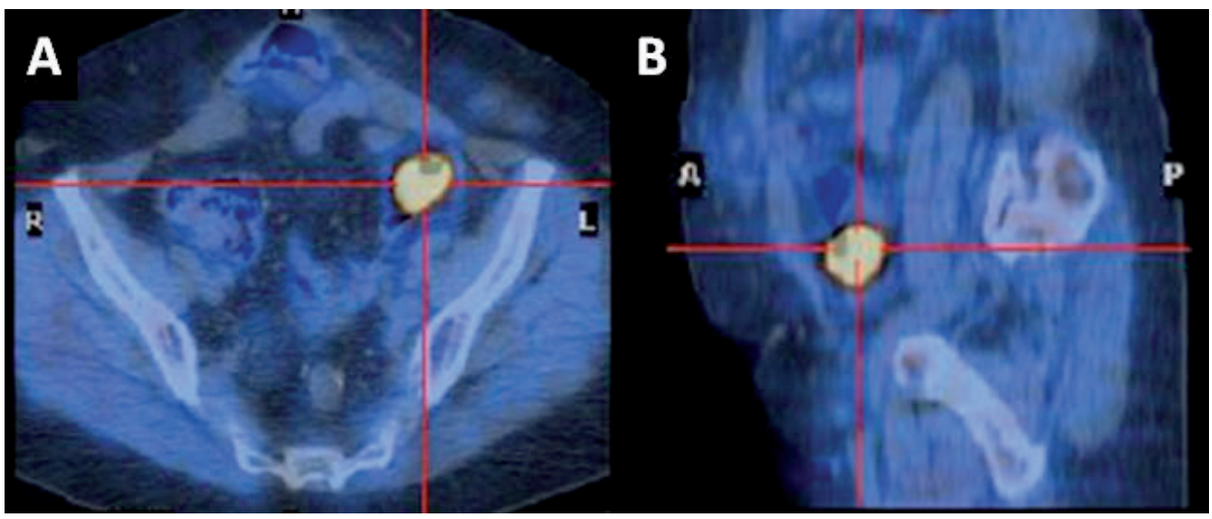

Fig. 1. — Positron emission tomography-computed tomography depicting a focus of hyperuptake on the left lower quadrant of the abdomen, compatible with distal ileum ; (A) axial view, (B) sagital view.

Correspondence to : Carlos Filipe dos Santos Bernardes, Rua Alfredo Inácio Ramos da Silva, número 28, 3º E, 2730-203 Barcarena, Portugal.
E-mail :carlosfbernardes@gmail.com

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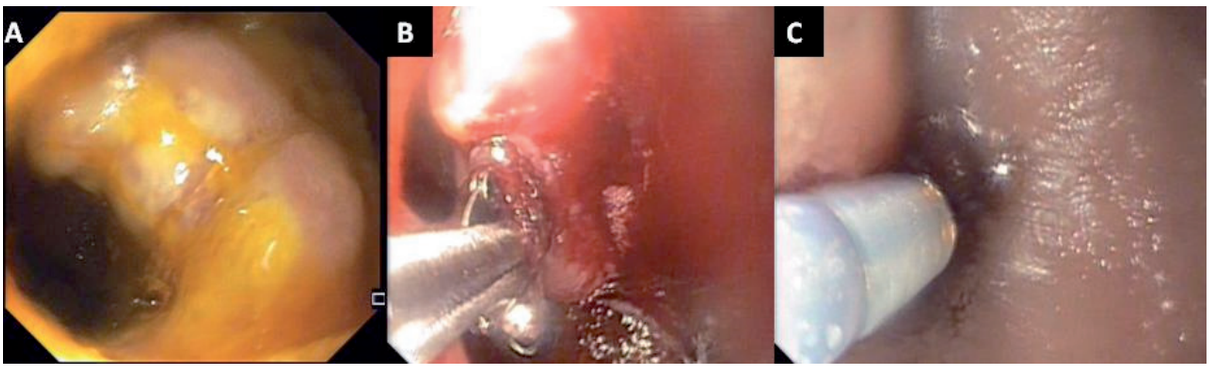

Fig. 2. — (A) Endoscopic image showing ulcerated tumour at the distal ileum. (B) Biopsies were taken and (C) endoscopic tattooing of the lesion was performed.

abdomen, probably corresponding to the distal ileum (Fig. 1). A retrograde single-balloon enteroscopy (SIF-Q180 ; Olympus, Tokyo, Japan) was performed, being able to advance through the ileum up to 30cm from the ileocecal valve, where an ulcerated and friable tumour, occupying about one-half of the perimeter of the intestinal loop and a longitudinal extension of about 5cm was found (Fig. 2). Biopsies showed a moderately differentiated adenocarcinoma, compatible with metastasis of colorectal adenocarcinoma. The patient underwent conversion QT with folinic acid + fluorouracil + irinotecan (FOLFIRI) + cetuximab followed by surgical resection of the small bowel lesion (R0 on microscopic examination). She is currently in complete remission with 8 months of follow-up.

Discussion

Small bowel malignancies are rare, comprising solely 1-2% of gastrointestinal neoplasms, with metastatic lesions accounting for only about 10% of all small bowel tumours (2,3) . In a review of 7 case reports of small bowel metastases, all tumours were identified intra-operatively: with the exception of the cases which were diagnosed accidentally, all the remaining had intestinal obstruction (1). In asymptomatic patients, whose lesions are suspected through diagnostic imaging, preoperative evaluation is essential to define an adequate therapeutic strategy, particularly in situations in which surgery may not be curative, such as the one we described. In our case, offering previous chemotherapy and delaying surgical intervention to be performed in an optimal timing and setting may have contributed to a better prognosis.

The upgrowth of device-assisted enteroscopy led to a significant improvement in the diagnostic and therapeutic management of malignant small bowel tumours. In addition to the advantage of enabling histopathological evaluation of the lesion, direct endoscopic approach of these neoplasms may be crucial to resolve tumour bleeding in an emergency setting (4). Finally, when complete resolution of the disease is not feasible, balloon-assisted enteroscopy is useful to provide palliative treatment as in the situation of malignant stenoses which require stent placement (5,6).

Keywords : single-ballon enteroscopy, enteroscopy, small bowel metastasis, small bowel tumours.

References

1. KOJIMA Y., MATSUMOTO F., MIKAMI Y., NAMEKATA K., TAKEI M. Metastatic small bowel tumor from descending colon cancer with extensive hematogenous or lymphogenous spread : survey of the Japanese literature. *Case Rep. Gastroenterol*., 2010, **4** (3) : 340-5.
2. TUNIO M.A., ALASIRI M., SALEH R.M., AKBAR S.A., ALI N.M., SENOSY HASSAN M.A.. Obstructive small bowel metastasis from uterine leiomyosarcoma: a case report. *Case Rep. Obstet. Gynecol.*, 2014 : 603097.
3. CHOI J.E., PARK S.Y., JEON M.H., KANG S.H., LEE S.J., BAE Y.K., *et al*. Solitary small bowel metastasis from breast cancer. *J. Breast Cancer*, 2011, **14** (1) : 69-71.
4. MÖNKEMÜLLER K., NEUMANN H., MEYER F., KUHN R., MALFERTHEINER P., FRY L.C. A retrospective analysis of emergency double-balloon enteroscopy for small-bowel bleeding. *Endoscopy*, 2009, **41** (8) : 715-7.
5. PINHO R., PROENÇA L., PONTE A., FERNANDES C., DA RIBEIRO I., SILVA J., *et al*. Balloon overtube-assisted stenting in difficult upper and lower gastrointestinal locations using a modified over-the-wire technique. *Endoscopy*, 2015, **47** (3) : 266-71.
6. PONTE A., PINHO R., PROENÇA L., BERNARDES C., COSTA A., FRANCISCO E., *et al*. Palliative stenting of a jejunal stricture secondary to malignant compression using single-balloon enteroscopy. *Gastroenterol. Hepatol*., 2016, Jul 30 ; pii : S0210-5705(16)30089-9 ; doi : 10.1016/j.gastrohep.2016.06.007 [Epub ahead of print]