

Title:

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Linitis plastica of the colon due to metastases of invasive lobular breast carcinoma

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ABSTRACT

Colon metastases from breast carcinoma are relatively rare and the invasive lobular subtype tends to metastasize more frequently due to its peritoneal dissemination. A 67-year-old female with a lobular subtype breast neoplasm was treated via a surgical resection ten years previously, with subsequent radiotherapy and adjuvant chemotherapy. She is currently in clinical remission.

A colonoscopy was performed due to a recent onset cachexia syndrome, which identified diffuse linitis plastica of the colon. Biopsies confirmed that it was secondary to infiltration by cancer cells of invasive lobular breast carcinoma (ILBC). In conclusion, linitis plastica of the colon may be a new presentation of colon metastases from ILBC.

Key words: Invasive lobular breast carcinoma. Colon metastases. Linitis plastica of the colon.

INTRODUCTION

Breast cancer is the most common tumor in females and is mainly diagnosed in early stages. The lungs, liver and brain are the main sites of metastases in cases diagnosed at an advanced stage (1). However, the involvement of the gastrointestinal tract remains

unusual (< 1%) and the stomach is most frequently affected (2). Colonic metastases from breast neoplasm are relatively rare and usually have a long latency, seven years after the initial breast cancer diagnosis (2). The invasive lobular breast carcinoma (ILBC) subtype tends to metastasize more often due to its association with peritoneal dissemination. Metastases from invasive ductal breast carcinoma (IDBC) are much less common due to the associated lymphatic dissemination (3).

CASE REPORT

A 67-year-old female was diagnosed with lobular carcinoma of the left breast ten years previously (T1N1M0). She underwent a mastectomy plus axillary lymphadenectomy, with subsequent radiotherapy (45 Gy) and adjuvant chemotherapy with six cycles of the FEC scheme (5-fluorouracil 600 mg/m² + epirubicin 75 mg/m² + cyclophosphamide 600 mg/m²). The patient was in clinical remission and there were no alterations on the most recent imaging tests. She had been discharged by the Oncology Service. However, she was referred by the Primary Care physician for a colonoscopy due to the onset of cachexia syndrome with a weight loss of 8 kg and altered bowel habits during a four month period.

The colonoscopy showed a complete loss of the typical pattern of colonic haustration, with stenosis at the level of the splenic angle that prevented progress with the conventional endoscope. A fine endoscope was used to progress to the stenosis. There was a continued loss of the pattern of haustration, with total blurring of the normal vascular pattern and granular mucosa with patched ulcers covered with fibrin in the proximal colon. This was suggestive of a Crohn-like disease pattern or a diffuse linitis plastica of the colon (Figs. 1 and 2).

Biopsies were taken from segments of the entire colonic mucosa. The histopathological analysis confirmed the infiltration by cancer cells from ILBC (Fig. 3). Thus, she was referred to the Oncology Service again. The multidisciplinary tumor committee decided that the most optimal therapeutic option was systemic treatment, as the disease was advanced with a diffuse metastatic infiltration of the whole colon. This ruled out surgical treatment.

Different therapeutic options were presented, such as additional chemotherapy cycles with the FEC scheme or switching to capecitabine. The lesion was positive for hormone receptors and the patient had never been treated with hormone therapy previously. Thus, the patient started hormone therapy treatment with tamoxifen 20 mg/day as agreed by the clinical session members and the patient. Additional cycles of chemotherapy with FEC are reserved as a second line treatment.

The patient had little response to tamoxifen and was admitted to hospital the following month due to an episode of bowel obstruction. Several diffuse peritoneal metastases were found by an exploratory laparotomy. The patient had a poor clinical evolution and subsequently died.

DISCUSSION

Colonic metastases from breast carcinoma are relatively rare and only a few cases have been reported in the literature. Nodular lesions are most commonly reported that mimic primary colon cancer (3,4). A few cases of gastric linitis plastica have been reported as a metastatic pattern from ILBC (5). However, until now, there are no reported cases in the literature of colonic linitis plastica as a metastatic pattern from ILBC.

The specific endoscopic pattern of colonic metastases from IDBC are nodules or masses and ulcerated lesions which mimic a primary colon tumor (2). Nevertheless, the endoscopic pattern of colonic metastases from ILBC is non-specific, with different endoscopic findings such as nodules and stenosis. In this case, a new pattern of presentation is diffuse infiltrative lesions that mimic a colonic linitis plastica.

The low specificity symptoms is the main problem for an early diagnosis, as they resemble the side effects of chemotherapy and mimic other gastrointestinal disorders, such as abdominal pain, anemia or cachexia syndrome (4). An endoscopic examination should be considered in order to rule out possible metastatic involvement (4) in patients with gastrointestinal symptoms and a history of breast cancer, especially the lobular type.

The treatment of choice of colonic linitis plastica from ILBC is hormone therapy with tamoxifen, provided that the tumor is positive for hormone receptors and the patient

has not received hormone treatment previously, even with little response. On the other hand, chemotherapy cycles with the FEC scheme can also be given, with poor response as seen with hormone therapy. Surgery is the treatment of choice in patients with intestinal obstruction or massive bleeding. A total or partial colectomy is required according to the affected portion of the colon (2).

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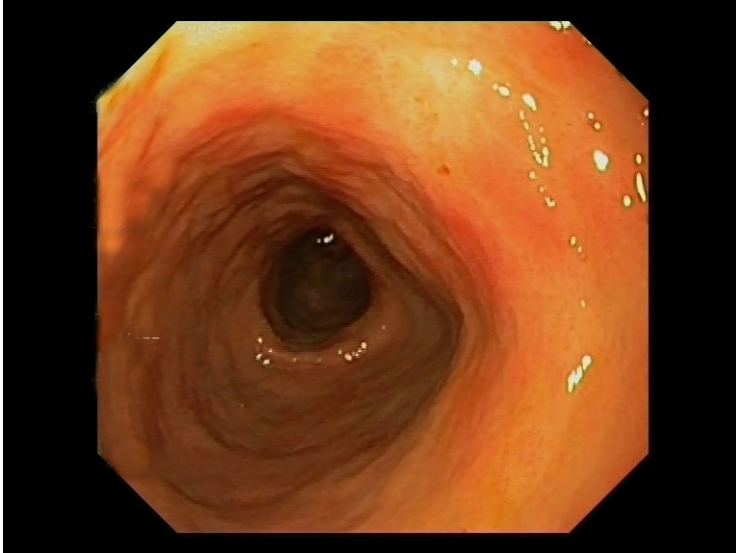


Fig. 1. Colon with a complete loss of the typical pattern of colonic haustration of the mucosa and stenosis at the level of the splenic angle that prevents progression with the conventional endoscope. A fine endoscope was finally used to progress to the stenosis.

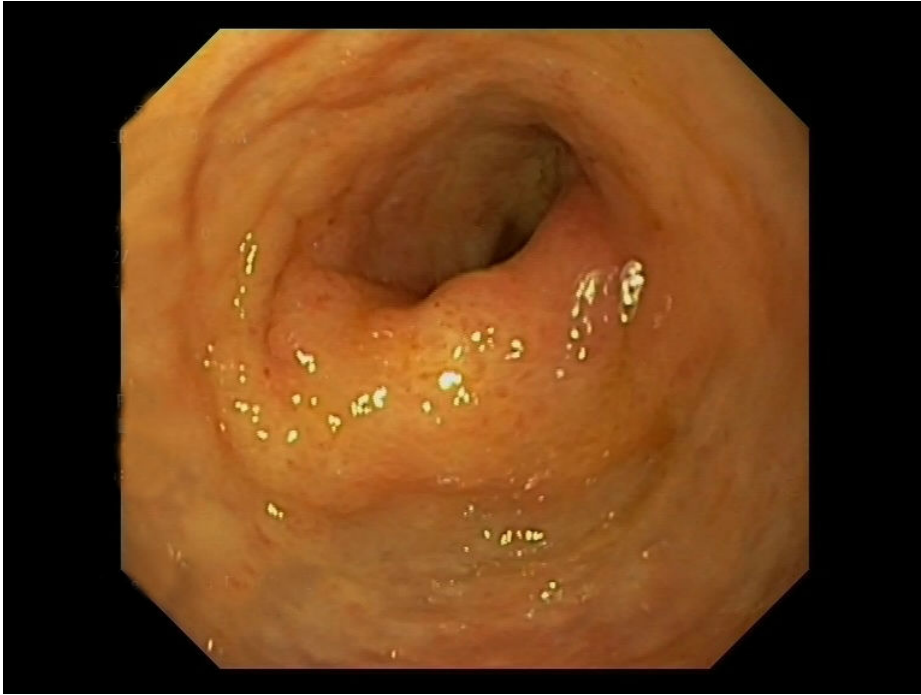


Fig. 2. Granular mucosa with total blurring of the normal vascular pattern and mucosal friability.

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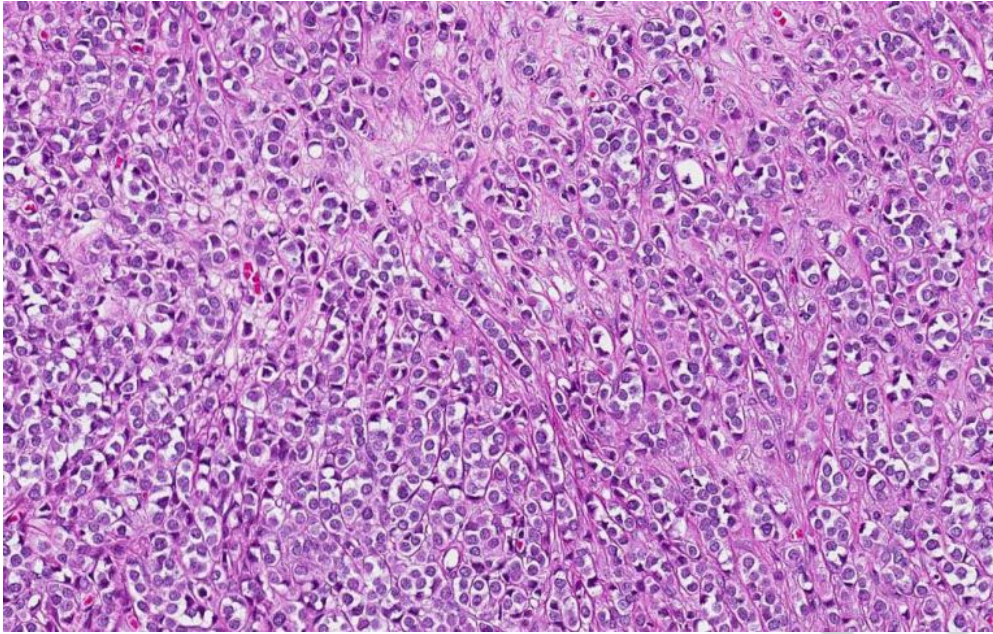


Fig. 3. The histopathological analysis confirmed the infiltration by cancer cells from invasive lobular breast carcinoma.