Title: Rectal ultrasound as unique diagnostic option in obstructive colorectal metastasis from breast adenocarcinoma

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Dear Editor,

We present the case of a 70-year-old woman with a prior diagnosis of invasive ductal carcinoma Stage IV and treated with letrozole for two years. Due to radiological tumoral progression, palbociclib and exemestane were prescribed with stable disease. She was admitted to our gastroenterology department for a 2-months history of weakness, anemia, and watery diarrhea.

A preferent colonoscopy was performed. It showed a circumferential stricture of the rectum with edematous mucosa. Multiple biopsies were taken. Pathological evaluation showed hyperplastic changes and chronic inflammation, with no evidence of...
malignancy. 
Abdominal computed tomography (CT) and pelvic magnetic resonance imaging (MRI) were performed revealing a stenotic regular circumferential thickening of the terminal ileum, cecum, ascending colon, sigma wall and rectum. The image was compatible with a nonspecific Crohn's disease-like inflammatory process.
Occlusive symptoms progressed, so a rectal endoscopic ultrasound (EUS) was performed and showed a circumferential rectal wall thickening invading the perirectal tissue (Figure 1B). EUS-guided tissue sampling was performed by means of an 22G histologic core biopsy needle.
Samples were processed as cellular block. Histopathologic examination (hematoxylin and eosin staining) showed a neoplastic epithelial lesion that infiltrates mucosa, submucosa, and rectal muscular layer.
Immunohistochemical analysis indicated that tumor cells were positive for CK7, Gata 3, mamoglobin and estrogen and progesterone receptors (breast specific immunohistochemical markers). (Fig 1 C, D).
So, a colonic metastatic breast cancer diagnosis was made. The disease gradually progressed, and unfortunately, the patient died four months after the diagnosis.

Discussion
Colorectal metastasis of breast lobular carcinoma diagnosis is challenging.
The incidence of gastrointestinal metastasis of breast cancer is approximately 1% and the estimated metastatic rate to the colon is 0.1% (1).
The interval between the primary breast cancer and diagnosis of colorectal metastasis is variable. In the literature the median interval was 6 years (range 0.25-12.5 years) (2).
Metastatic breast lobular carcinoma into the colorectum, presents endoscopic and radiologic appearance of linitis plastica-type lesion with circumferential stricture and wall thickening (3,4).
When metastatic cancer remains in submucosa with a non-malignant mucosal appearance, biopsy samples may be difficult to obtain (5).
In our case report, a biopsy specimen showed no evidence of malignancy at the stenotic area. The tumor invaded deep rectal wall and perirectal leading to rectal
stenosis without affection of mucosal layer. The correct final diagnosis was obtained by means of histopathological examination of the EUS-FNA deep layer samples.

References
Figure 1: Figure 1A: CT revealed a stenotic regular circumferential thickening of the terminal ileum, cecum, ascending colon, sigma wall and rectum Figure 1B: EUS showed a circumferential rectal wall thickening invading the perirectal tissue. Figure 1C: Hematoxylin and eosin staining showed a neoplastic epithelial lesion that infiltrates mucosa, submucosa, and rectal muscular layer. Figure 1D: Immunohistochemical analysis indicated that tumor cells were positive for CK7.