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Triple negative invasive lobular carcinoma of the breast presents as small bowel obstruction

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ABSTRACT

Metastasis from breast carcinoma to the gastrointestinal tract (GIT) is very uncommon. To date, only a few cases have been described worldwide. Of those which do metastasize to the GIT, only estrogen receptor (ER), progesterone receptor (PR) and HER2-neu receptor positive cancers have been reported and none have been mentioned in the U.S. We report a case of a 70-year-old white female with history of triple negative lobular carcinoma eight years earlier who presented with solitary jejunal mass causing obstruction.

1. Introduction

Breast cancer is the most common cancer affecting women in the US and the second-leading cause of cancer death according to the Centers for Disease Control and Prevention. One in eight U.S. women (about 12%) will develop invasive breast cancer over the course of her lifetime. Invasive lobular carcinoma (ILC) compromises 10% of breast cancers and is the second most common subtype after invasive ductal carcinoma (IDC) [1]. While metastatic pattern of IDC is associated with liver, lung, bone and brain, ILC is more likely to metastasize to the intra-abdominal viscera, uterus, ovaries, peritoneum or retro-peritoneal surfaces [3]. Small bowel metastasis from breast cancer is uncommon [4] and only 9% have been found in autopsy studies. Among cases spreading to the GIT, the histopathology is usually positive for ER, PR or HER2 receptors [5], especially in the invasive lobular type [6]. We describe a case of a triple negative ILC presenting 8 years later with small bowel metastasis causing obstruction.

The following case report is compliant with SCARE guidelines as per Agha et al.

2. Case report

A 70-year-old Caucasian female presented to Southampton Hospital Emergency Department complaining of intermittent abdominal pain, vomiting and diarrhea for the past two weeks. The patient had extensive past medical history including asthma, COPD, HTN, myocardial infarction x3, DM, ovarian cancer, uterine cancer, breast cancer and the following surgical history: hysterectomy, cholecystectomy, hernia repair and right total mastectomy with sentinel lymph node biopsy (SLNB) eight years earlier. Physical exam revealed a tender abdomen with involuntary guarding and hyperactive bowel sounds. A CAT scan of the abdomen and

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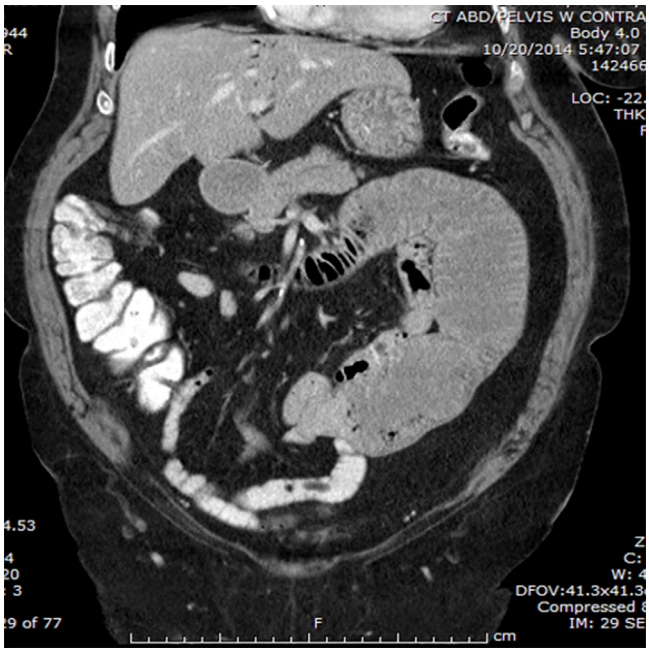

Fig. 1. CT scan showing small bowel obstruction.

pelvis was suspicious for small bowel obstruction and ischemia (Fig. 1). Laparoscopy and subsequent laparotomy revealed a mass-like lesion at the proximal jejunum about 30 cm from the ligament of Treitz with no adhesions around the tumor. While the distal small bowel was collapsed, the proximal bowel was severely thickened and edematous but there was no evidence of gangrene. Frozen section showed malignant tumor and an extended radical small-bowel-resection and an end-to-end anastomosis were performed. The immunohistopathologic profile of the tumor revealed cells positive for mammaglobin, supporting the diagnosis of metastatic carcinoma of the breast origin. Tumor cells presented as diffusely infiltrating cells or small clusters of cells positive AE1/AE2 but negative e-cadherin, favoring metastatic lobular carcinoma (Figs. 4 and 5

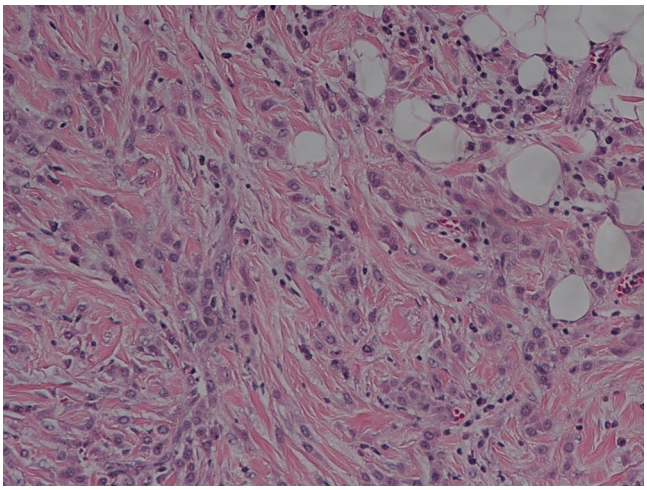

Fig. 3. Histology of original breast mass.

). In addition, immunostains were positive for GATA3 but negative for CDX2, ER, PR and the HER2-receptor. On further investigation of her original breast cancer history in 2005, mammography from 12/22/05 had revealed a 15 mm mass in the upper outer quadrant of the right breast as well as a focal asymmetric density in the medial aspect of the right breast. (Fig. 2). An ultrasound guided biopsy of the two masses revealed triple negative invasive lobular carcinoma. The patient had undergone a right total mastectomy and SLNB with two of the three sentinel nodes revealing isolated tumor cells by IHC. The patient was referred to a medical oncologist for possible chemotherapy but declined both times (at the time of the original breast cancer and at the time of metastasis to the jejunum) (Fig. 3).

3. Discussion

Invasive lobular carcinoma may be clinically difficult to diagnose due to being poorly defined. It is associated with an insidious growth and subtle mammographic features with architectural distortion being more common and microcalcifications less common

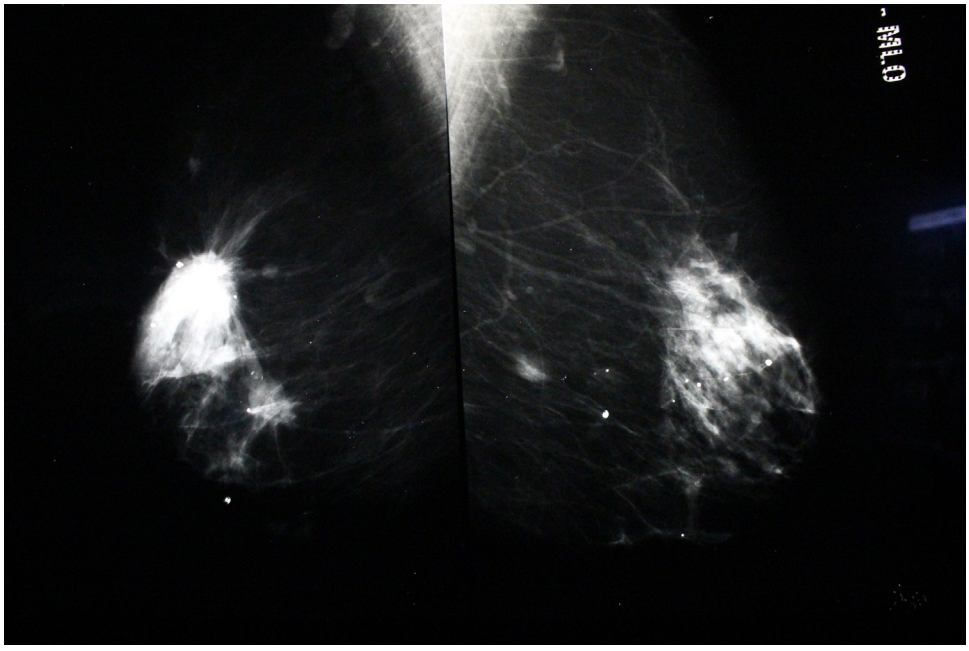

Fig. 2. Mammogram showing breast mass.