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Rectal metastasis from Breast cancer: A rare entity



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ABSTRACT

INTRODUCTION: Breast cancer metastases occurs in around 50% of all presentation. It is the second most common type of cancer to metastasise to the GI tract but this only occurs in less than 1% of cases.

PRESENTATION OF CASE: We report a case that underwent treatment for invasive lobular cancer (ILC) of the breast and 5 years later was found to have rectal and peritoneal metastasis. She is currently receiving palliative management including chemotherapy in the form of weekly Paclitaxel (Taxol®) and stenting to relieve obstruction.

CONCLUSION: There should be high clinical suspicion of bowel metastasis in patients presenting with positive faecal occult blood with or without bowel symptoms even if the incidence is less <1% of metastases, particularly in cases where the initial breast tumour was large, with positive axillary nodes.

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1. Introduction

The risk of distant metastases from breast cancer is around 50%, most commonly to nodes, lung, bones, brain and liver [1,2]. There have been several reports of metastasis to GI tract although this is rare and accounts for less than 1% of all metastatic cases.

In this paper we report the case of a patient who underwent treatment for invasive lobular cancer (ILC) of the breast and 5 years later was found to have rectal and peritoneal metastasis from the breast primary.

2. Presentation of case

A 56 old lady was diagnosed with screen-detected right breast cancer in 2010 for which she underwent a right mastectomy and axillary node clearance. Her breast histology suggested 2 kinds of cancer: one was a 102 mm infiltrating lobular cancer which was ER positive and HER2 negative; the second lesion was a grade 1 invasive ductal carcinoma measuring 8 mm. Ki67 and progesterone analysis are not routinely done as per NICE guidelines. 4 of 10 axillary nodes were positive for metastatic disease. She received 3 cycles of adjuvant chemotherapy in the form of Fluorouracil, Epirubicin and Cyclophosphamide followed by 3 cycles of Taxotere (FEC-T). Subsequently she received chest wall, axillary and supraclavicular fossa radiation of 15 Gy five days of the week for 3 weeks.

She underwent regular surveillance mammograms and CT scans which suggested no evidence of local or distant recurrence.

In February 2015 she was recalled by the NHS Bowel Cancer Screening Programme for a positive result on faecal occult blood testing. The patient was otherwise asymptomatic at this stage. At endoscopy, she was found to have a stricture in the rectum approximately 16 cm from the anal verge. The stricture was negotiated with a gastroscopie but proximal bowel was loaded with hard faeces and the procedure could not be continued. Biopsies were taken from the narrowed area confirming metastatic lobular carcinoma of breast. The specimen was CK7 and ER receptor positive and negative for HER2, CDX2 and CK20 as demonstrated in Figs. 1 and 2. The confirmation of metastatic lobular carcinoma was made on the morphology on the H&E section and the ER and HER2 status which was identical to the primary. She underwent a CT scan of her chest, abdomen and pelvis. This identified the stricture in the rectum at the recto-sigmoid junction. She was also found to have a 41 × 48 × 47 mm left adnexal mass and several peritoneal deposits were also noted. Her case was discussed in the breast and colorectal multidisciplinary meetings and all of these lesions and the adnexal mass were thought to be breast metastases.

She was therefore referred to the oncologist for palliative chemotherapy in the form of weekly Paclitaxel (Taxol®) for a total of 18 cycles and will have a repeat CT after the 9th cycle to assess response.

She has currently completed 3 cycles but started to develop discomfort and a sense of incomplete evacuation. This has been managed symptomatically by the radiologist. They have identified 2 strictures, one known recto-sigmoid stricture and the second 10 cm proximal to it and deployed 2 interlocking stents 1st 8 cm and 2nd 6 cm long successfully to manage this as seen in Figs. 3, 4 and 5.

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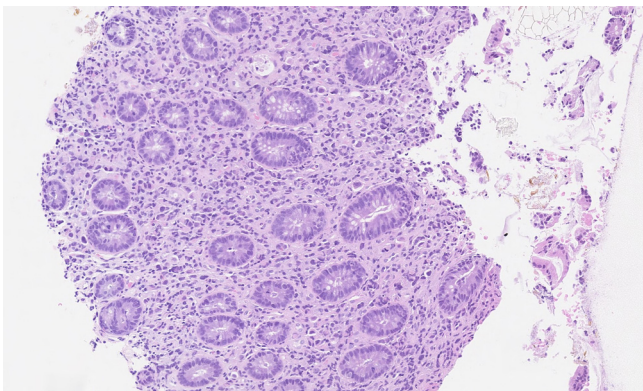


Fig. 1. H&E section the lamina propria is expanded by small malignant cells.

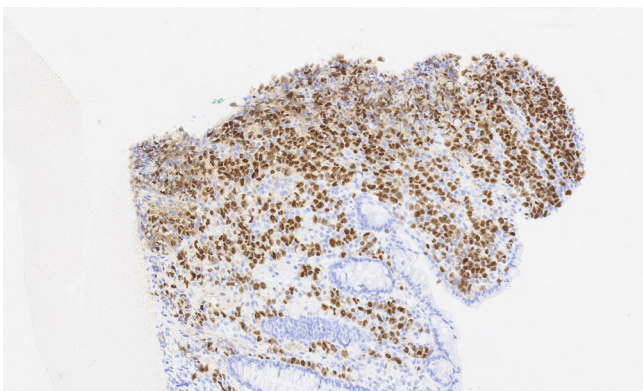


Fig. 2. Immunohistochemistry show positive oestrogen receptor.

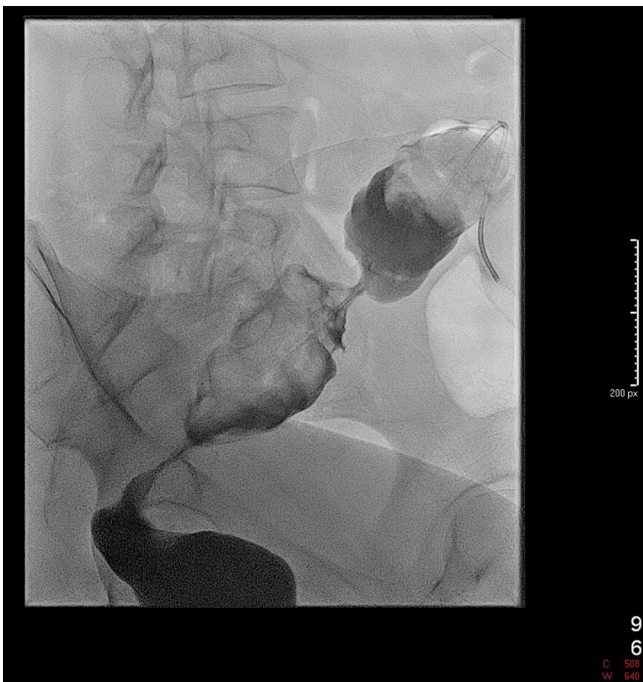


Fig. 3. Pre-procedure demonstrating 2 strictures.

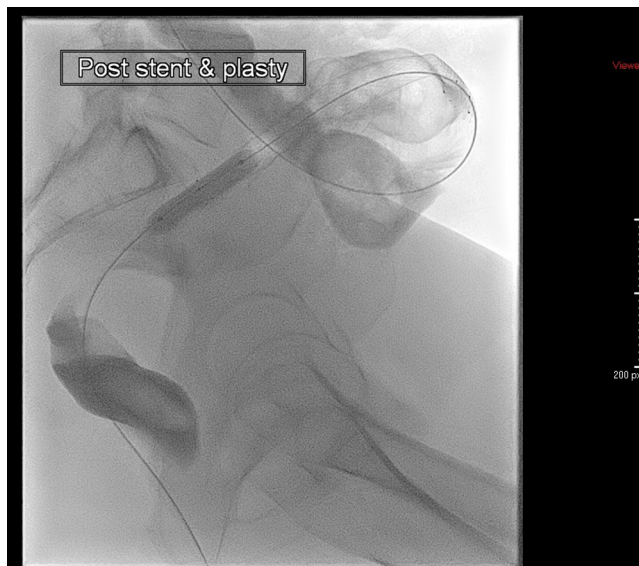


Fig. 4. Successful dilation and deployment of stents.



Fig. 5. Post-procedure showing stent position and contrast through to rectum.

3. Discussion

Breast cancer is the second most common cancer to metastasise to the GI tract, second only to malignant melanoma [2,3].

ILC accounts for 10–20% of breast tumours and is the most likely breast cancer to metastasise due to its loss of cell–cell adhesion molecules [4]. The risk of local or distant metastasis is 60% at the time of first presentation and 30–80% will develop distant metastases after completing the treatment for cancer [5,6]. Although the usual sites for any breast cancer metastases are liver, bone, lungs, brain and nodes [1,2], secondary deposits to the GI tract have been previously documented, but are certainly a rare entity. Borst and Ingold, in their study of 2604 cases of breast cancer had reported GI metastases in only 17 cases (0.7%) [7,8]. An autopsy study suggested that metastasis to the GI tract is more common than clinically suspected and the true incidence is therefore not known [1,9]. Borst

also reported that ILC was more likely to metastasise to the GI tract, gynaecologic organs and peritoneum than invasive ductal carcinoma [4,7,10]. The sites of metastases can be anywhere from the oropharynx [4,11] to the anus [4,12,13]. The most common site is stomach [14,15] followed by small bowel, with colorectal metastasis being much rarer [2,4,5,16]. The most typical presentation is the thickening and rigidity of the rectal wall, as seen in our case, rather than identifying a localized mass [14].

Apart from histology of the cancer, the size of the primary breast tumour and metastasis to regional nodes at time of diagnosis are considered significant risk factors for distant metastasis. Iorfida et al. [17] suggested that a breast tumour greater than 2 cm in diameter and node positive were both independent risk factors for metastases and this was true in our patient who had a lesion over 10 cm in diameter with 4 metastatic nodes. The time from initial diagnosis of breast cancer to metastasis can be just a few months [18] to 5 years [19,20] to more than decades [1,2].

As ILC behaves very different from other known breast cancers in terms of recurrence and sites of metastasis, it has been described as a chronic disease by Anwar et al. [21]. Patients with this cancer should always be suspicious of a recurrence developing in a local or distant site such as the GI tract, even years after curative treatment is given. There should be a high index of suspicion for bowel metastasis in a patient with known ILC if bowel symptoms develop or if they are asymptomatic with a positive faecal occult blood. Metastases to the GI tract is a late manifestation and palliative chemotherapy is usually offered as first line of treatment to control tumour growth. Surgery has little role to play in this situation unless the patient develops bowel obstruction or perforation [22]. About 53% [4,23] will have some response to treatment, and the survival after treatment is poor but some cases of longer survival are also reported [2,5].

4. Conclusion

Due to the relapsing and remitting nature of breast ILC, there should be high clinical suspicion of bowel metastasis in patients presenting with positive faecal occult blood with or without bowel symptoms, particularly in cases where the initial breast tumour was large, with positive axillary nodes. We recommend the suitable mode of monitoring should be routine CTs in such cases. Another consideration would be to enter these patients earlier into the Bowel Cancer Screening Programme as breast cancers are second most common cancer metastasizing to bowel. This case demonstrates the value of long term follow-up of this patient cohort even when they appear to be in remission.

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