

# Anorectal Metastasis from Breast Carcinoma: A case report with literature review

M Nair, O Fafemi

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## Abstract

Gastrointestinal metastases from breast cancers usually derive from invasive lobular carcinomas. This is a case report of an anorectal metastasis, which presented as a digitally palpable anorectal mass, originating from an invasive ductal carcinoma of the breast. A vigorous diagnostic approach prior to planning treatment permits prolonged survival without surgical intervention if the proper diagnosis of metastatic breast cancer can be made.

## CASE HISTORY

A 57-year-old lady presented with recent alteration of bowel habits of 6 weeks duration, crampy lower abdominal pain and increased frequency of bowel movements up to 20 times a day. Her abdominal examination was unremarkable. On rectal examination a bleeding circumferential ulcerative lesion was felt at the anorectal region. A lower gastrointestinal endoscopy revealed a circumferential ulcerative growth, starting about 3 cm from the anal verge, and extending up to 5 cm. A biopsy was done. The rest of the large bowel was normal. Examination of the left breast revealed a 5x4 cm lump around the nipple areola complex with ipsilateral axillary lymph nodes. This lump was core biopsied. The carcino embryonic antigen level was 107 mcg/l (normal between 0-4) and the CA 15-3 was 965 U/ml (normal up to 30). Seven years back, she underwent treatment for locally advanced, Grade 3 invasive ductal carcinoma of the right breast with neoadjuvant chemotherapy followed by right mastectomy with axillary clearance and radiotherapy to right chest wall. The hormone receptor status was negative, but there was overexpression of HER-2. She initially received taxotere and herceptin therapy in an adjuvant fashion. Five years later, she developed a tumour recurrence in the right supraclavicular fossa, for which she received vinorelbine chemotherapy and palliative high dose radiotherapy. After one year, she underwent pleurodesis for a right sided pleural effusion and completed a course of capecitabine chemotherapy for right anterior chest wall recurrence. She subsequently received a combination of epirubicin and cyclophosphamide chemotherapy for progressive disease.

The biopsy of the anorectal ulcerative growth was an adenocarcinoma of apocrine appearance infiltrating between intact large bowel crypts. The morphological appearances were similar to those of the previous breast cancer. Immunostaining showed that the tumour cells were positive for CK7 and EMA and negative for CK 20 and CEA. The appearance and immunoprofile were those of a metastatic breast carcinoma involving large bowel. She had a loop colostomy done in preparation for radiotherapy.

## DISCUSSION

Gastrointestinal metastases from breast cancers are rare <sup>1</sup>. Spread to the lower gastrointestinal tract is even rarer <sup>5</sup>. They occur more often in patients with invasive lobular carcinoma <sup>2,6,7,10</sup>. Common sites of metastasis for the breast cancer are bones, lungs, the central nervous system and liver <sup>5</sup>. The anorectum is the rarest site of metastases for breast carcinoma. The metastatic patterns of the two commonest histological types of breast cancers, lobular and ductal carcinoma are different, with the gastrointestinal, female reproductive organs, and the peritoneal-retroperitoneal metastases markedly more prevalent in lobular carcinoma <sup>9</sup>. Clinical presentations of primary and secondary anorectal carcinoma are the same <sup>4</sup>. The method for distinguishing between the two is histology and immunohistochemistry <sup>4</sup>. Because of luminal obstruction, endoscopic examination may not be possible in all these patients, but when possible will provide material for a biopsy <sup>10</sup>. Identity of the lesion is confirmed by direct histologic comparison of the resected tumour with the prior breast specimen, cytokeratin expression, and the staining for hormonal receptors <sup>6</sup>.

Prolonged survival without surgical intervention can be expected if the proper diagnosis is made. A vigorous diagnostic approach of differentiation of primary from metastatic lesion permits alternative therapy for the metastatic colorectal lesions<sup>3</sup>. This should be done in all cases, particularly those with a previous history of treated cancer. Given the increased survival of breast cancer patients with current therapeutic regimens, more unusual presentations of metastatic disease, including involvement of the gastrointestinal tract can be anticipated<sup>7</sup>. Despite the fact that isolated gastrointestinal metastases are very rare and much less common than benign disease processes or second primaries of the intestinal tract in patients with a history of breast cancer, metastatic disease should be given consideration whenever a patient experiences gastrointestinal symptoms<sup>8</sup>. This is particularly true if the colorectal lesion is scirrhous in nature<sup>11</sup>.

The treatment of secondary anorectal carcinoma is with systemic therapy, and surgery is usually palliative<sup>4</sup>. Systemic hormonal or chemotherapy or x-irradiation, either alone or in combination with surgery, produces a favourable response in over half of the patients<sup>10</sup>. Surgical intervention will not significantly extend overall survival, but may be considered in a select group of patients<sup>2</sup>. If surgery is planned, the incision for laparotomy and the probable stoma site should be planned carefully, more so in females after breast reconstructive surgery<sup>11</sup>. Disease remissions have been reported (more than 3 years) from surgical removal of the lesion followed by cyclophosphamide, epirubicin, and 5-fluorouracil chemotherapy<sup>12</sup>. Treatment with systemic chemotherapy or tamoxifen has a positive effect on overall survival if the tumour bears hormonal receptors<sup>2</sup>.

## CORRESPONDENCE TO

Dr Manojkumar Sreedharan Nair Specialist Registrar in General Surgery North Middlesex University Hospital NHS Trust London UK N18 1SU Mob:0044 07910946629 Email:

drmanojms@yahoo.co.in

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**Author Information**

**Manojkumar S. Nair, MRCS MS MNAMS**

Department of General Surgery, North Middlesex University Hospital NHS Trust

**O. Fafemi, FRCS**

Department of General Surgery, North Middlesex University Hospital NHS Trust