Metastatic Breast Cancer Found During Colon Cancer Screening

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**Recommended Citation**


ISSN: 2769-2779

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Keywords
colonoscopy, breast cancer, colon cancer screening

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Conflict of Interest Statement
No conflict of interests to be reported

Authors

This imaging-video-audio media is available in Advances in Clinical Medical Research and Healthcare Delivery:
https://scholar.rochesterregional.org/advances/vol3/iss4/10
Metastatic Breast Cancer Found During Colon Cancer Screening

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Keywords: Colonoscopy, Breast cancer, Colon cancer screening

A 60-year-old female with a history of invasive ductal carcinoma status post right mastectomy and chemotherapy, on tamoxifen and in remission, underwent a screening colonoscopy. A solitary white plaque was seen in the sigmoid colon (Fig. 1) and the biopsy revealed invasive adenocarcinoma (Fig. 2). The tumor cells were strongly positive for Cytokeratin-7 (Fig. 3) and GATA 3 (Fig. 4) and negative for Estrogen receptors (Fig. 5). She was diagnosed with metastatic breast adenocarcinoma. The patient's prior biopsies were positive for GATA 3 stain and her carcinoembryonic antigen (CEA) and cancer antigen (CA) 27 29 levels were elevated as compared to previous values confirming recurrence of breast cancer. On further workup, metastasis to right external iliac nodes, left axillary and subpectoral nodes, and right and left upper lobes of the lungs were found. The patient received chemotherapy for 3 years and maintained a good quality of life until she started deteriorating due to liver failure and elected to enter hospice care. She passed away a month after entering hospice care.

A unique feature of this case is the appearance of the metastatic lesion. Usually, the gross appearance of the metastatic lesions are polyps or intraluminal obstructing lesions (Figs. 6 and 7).1–3 Breast cancer metastasizing to the colon is uncommon. Invasive ductal carcinoma metastasizes to the liver and stomach but rarely metastasizes to the colon.1,2,4,5

On the contrary, lobular breast carcinoma most commonly spreads to the colon.2,6 Breast cancer most commonly spreads to the colon via hematogenous or lymphatic spread.2 The stains Cytokeratin-7 and GATA 3 are commonly used as immunohistochemical markers for diagnosis of breast cancers.7

The treatment plan depends on symptoms and the presence of multifocal disease. If the patient has gastrointestinal symptoms or complications, such as perforation or intestinal obstruction secondary to the metastatic lesions, palliative surgical

Fig. 1. Solitary white plaque-like lesion in the sigmoid colon, which on histological examination turned out to be metastatic breast cancer (blue arrow).
Fig. 2. Blue arrow indicates normal sigmoid colon and green arrow indicates malignant tissue from the biopsy.

Fig. 3. The biopsy cells were positive for cytokeratin 7 stain.

Fig. 4. Malignant cells staining positive with GATA 3 stain.

Fig. 5. Malignant cells staining negative for ER receptors.

Fig. 6. Stenosing lesion due to invasive breast lobular carcinoma to the colon.

Fig. 7. Multiple polyps due to breast cancer metastasis to the colon.
options are considered. In other scenarios, patients receive chemotherapy or a combination of hormonal therapy and chemotherapy with or without surgery.

Patients rarely survive beyond 16–24 months after gastrointestinal metastasis. Our patient was unusual in that she survived for 36 months until she entered hospice care in the last month of her life.

We wish to highlight the rare finding of invasive ductal breast cancer metastasis to the colon, the unique appearance of the lesion, and the importance of a keen eye in the endoscopist.

**Author Contribution**

Conceptualization, Data curation, Supervision, Visualization, Writing — original draft, Writing — review & editing.

**Conflicts of interest**

The authors have no conflicts of interests to report.

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