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Metastatic Breast Cancer Found During Colon Cancer Screening

Rutwik Pradeep Sharma

Rochester Regional Health System, RutwikPradeep.Sharma@rochesterregional.org

Tausif Syed

Rochester Regional Health System, Tausif.Syed@rochesterregional.org

Meenal Sharma

Rochester regional health, meenal.sharma@rochesterregional.org

Jay Bapaye

Rochester regional health, jay.bapaye@rochesterregional.org

Ahmed Shehadah

Rochester regional health, ahmed.shehadah@rochesterregional.org

Alexander T. Kusnik

Rochester Regional Health System, alexander.kusnik@rochesterregional.org

Ali Jaan

Rochester Regional Health System, alijaanch187@gmail.com

Richard Alweis

Rochester Regional, richard.alweis@rochesterregional.org

See next page for additional authors

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Author ORCID ID:

0000-0003-3788-7496

Keywords

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Conflict of Interest Statement

No conflict of interests to be reported

Authors

Rutwik Pradeep Sharma, Tausif Syed, Meenal Sharma, Jay Bapaye, Ahmed Shehadah, Alexander T. Kusnik, Ali Jaan, Richard Alweis, and Andrej Strapko

IMAGING-VIDEO-AUDIO MEDIA

Metastatic Breast Cancer Found During Colon Cancer Screening

Rutwik P. Sharma^{a,*}, Tausif Syed^b, Meenal Sharma^c, Jay Bapaye^f, Ahmed Shehadah^d, Alexander Kusnik^a, Ali Jaan^d, Richard Alweis^a, Andrej Strapko^e

^a Department of Internal Medicine, Rochester Regional Health, Unity Hospital, USA

^b Department of Gastroenterology, Rochester Regional Health, Rochester General Hospital, USA

^c Department of Pathology, Rochester Regional Health, Unity Hospital, USA

^d Department of Internal Medicine, Rochester Regional Health, Rochester General Hospital, USA

^e Gastroenterology Associates of Rochester, USA

^f Department of Gastroenterology, Virginia Tech Carilion School of Medicine, Virginia, USA

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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).

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* Corresponding author.
E-mail address: rutwiksharma21@gmail.com (R.P. Sharma).

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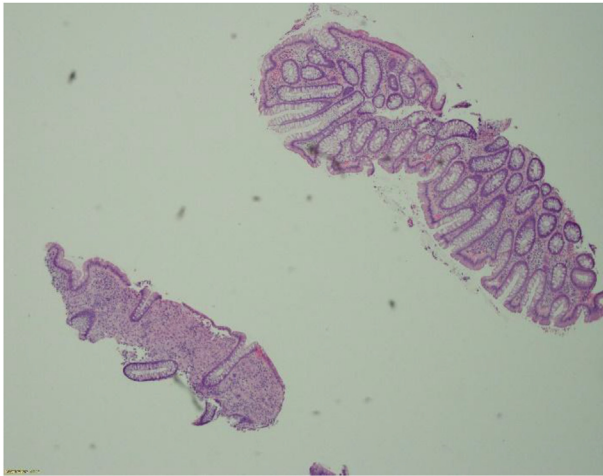


Fig. 2. Blue arrow indicates normal sigmoid colon and green arrow indicates malignant tissue from the biopsy.

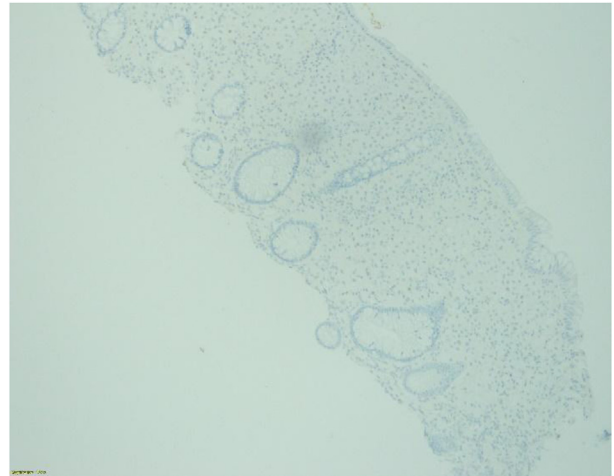


Fig. 5. Malignant cells staining negative for ER receptors.

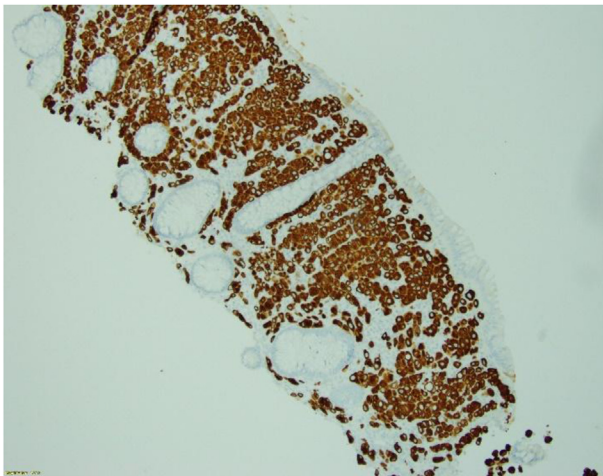


Fig. 3. The biopsy cells were positive for cytokeratin 7 stain.

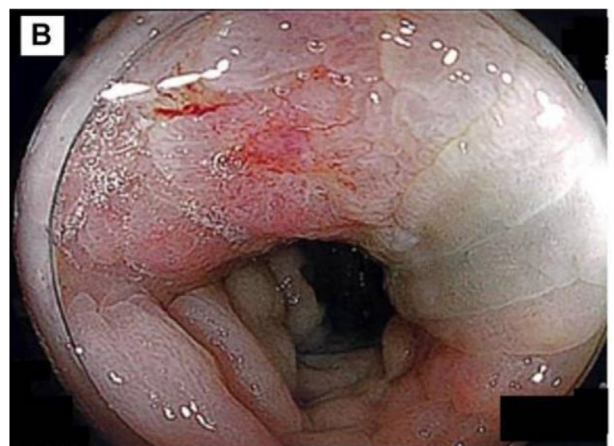


Fig. 6. Stenosing lesion due to invasive breast lobular carcinoma to the colon.¹

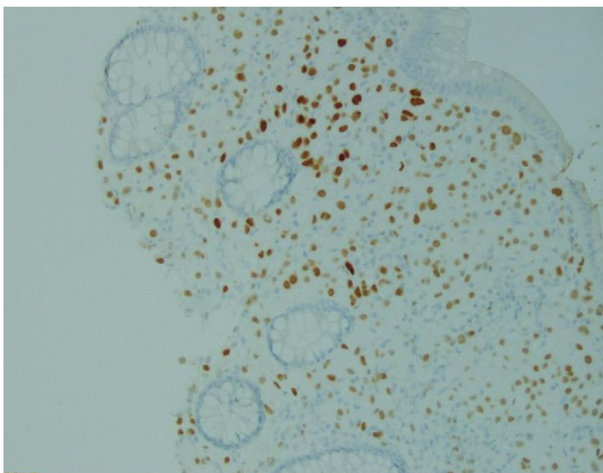


Fig. 4. Malignant cells staining positive with GATA 3 stain.

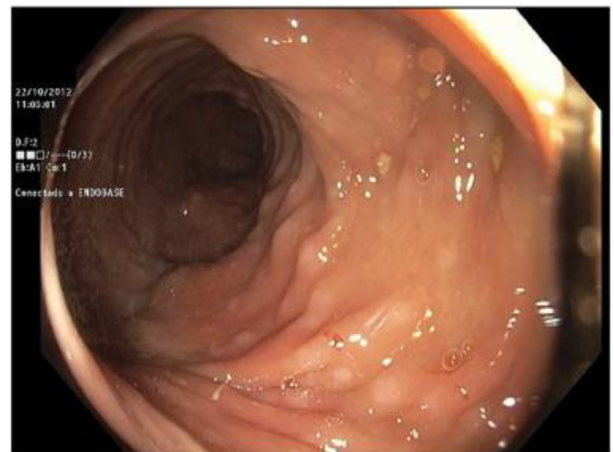


Fig. 7. Multiple polyps due to breast cancer metastasis to the colon.³

options are considered.^{4,6} In other scenarios, patients receive chemotherapy or a combination of hormonal therapy and chemotherapy with or without surgery.⁴

Patients rarely survive beyond 16–24 months after gastrointestinal metastasis.⁴ 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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