

Metastasis of breast cancer presenting as enlarged folds in the stomach

So Eun Jeun¹, Gwang Ha Kim^{1,2}, Moon Won Lee^{1,2}, Sojeong Lee³

¹Department of Internal Medicine, Pusan National University College of Medicine, Busan; ²Biomedical Research Institute, Pusan National University Hospital, Busan; ³Department of Pathology, Pusan National University College of Medicine, Busan, Korea

A 45-year-old female patient presented for the evaluation of intermittent abdominal pain and weight loss (15 kg over 4 months). The patient recently underwent a needle biopsy for a 2 cm-sized mass in the right breast (Fig. 1A) and was diagnosed with invasive lobular carcinoma. On endoscopy, diffusely nodular, enlarged folds with hyperemia were observed on the greater curvature of the gastric body (Fig. 1B). On air inflation, the stomach maintained relatively good distensibility. Endoscopic ultrasonography revealed the thickening of the submucosal layer (Fig. 1C). Endoscopic biopsy using a bite-on-bite technique revealed only chronic gastritis; therefore, a strip biopsy was performed. Discohesive tumor cells had infiltrated the submucosa of the stomach (Fig. 2A), and the tumor cells were immunopositive for gross cystic disease fluid protein-15, human milk fat globule protein membrane-2, estrogen receptor, and progesterone receptor (Fig. 2B). These results were consistent with the histopathological findings of the right breast cancer. Therefore, the gastric lesion was diagnosed as a metastasis of breast cancer to the stomach. The patient underwent a radical mastectomy for right breast cancer, but gastrectomy was impossible owing to the

presence of metastatic nodules in the small bowel and peritoneum. At the time of writing this report, the patient is receiving systemic chemotherapy (paclitaxel 175 mg/m² every 3 weeks).

Breast cancer is reported to be the second most common metastatic cancer of the gastrointestinal tract after lung cancer.¹ The incidence rate of breast cancer metastasis to the stomach is <1%. Gastric metastasis from breast cancer shows nonspecific endoscopic features such as an elevated mucosal lesion, erosion, or ulcer, and it can rarely appear as enlarged folds on endoscopy, as in the present case.² In case of such folds, a strip biopsy or endoscopy ultrasound-guided fine needle biopsy is sometimes needed to obtain adequate tissue sample. Because breast cancer metastases to the stomach are morphologically similar to poorly cohesive gastric carcinomas, especially in invasive lobular carcinoma, an immunohistochemical examination is warranted for a definite diagnosis.³ For the treatment of breast cancer metastasis to the stomach, systemic agents such as cytotoxic chemotherapeutic agents or hormonal agents are used. Surgical resection of the stomach has a limited role in palliative treatments such as relieving obstructive symptoms.¹

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Correspondence: Gwang Ha Kim
Department of Internal Medicine, Pusan National University College of Medicine and Biomedical Research Institute, Pusan National University Hospital, 179 Gudeok-ro, Seo-gu, Busan 49241, Korea
E-mail: doc0224@pusan.ac.kr

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Conflicts of Interest

The authors have no potential conflicts of interest.

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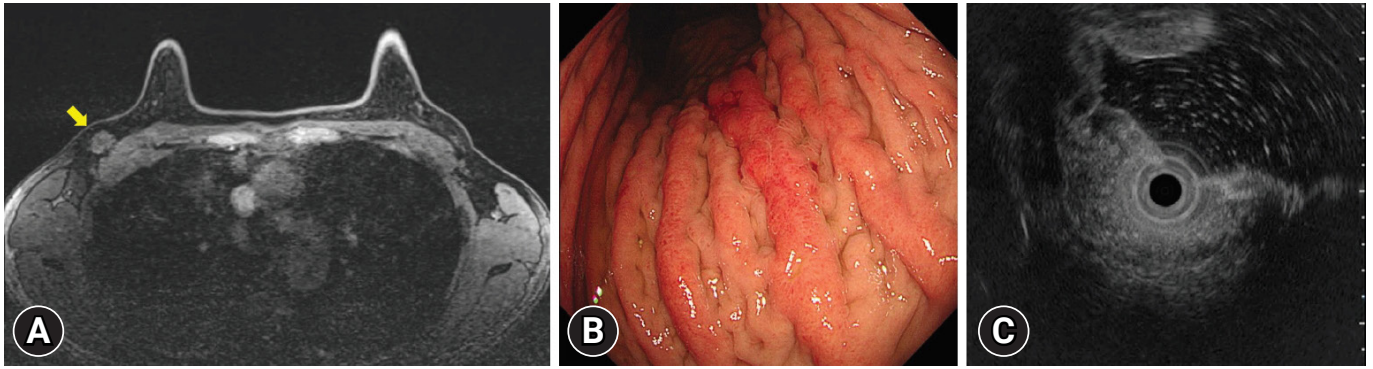


Fig. 1. (A) Breast magnetic resonance imaging shows a 2 cm-sized mass in the right breast (arrow). (B) On endoscopy, diffusely nodular, enlarged folds with hyperemia are seen on the greater curvature of the gastric body. On air inflation, the stomach maintains relatively good distensibility. (C) Endoscopic ultrasonography reveals the thickening of the submucosal layer.

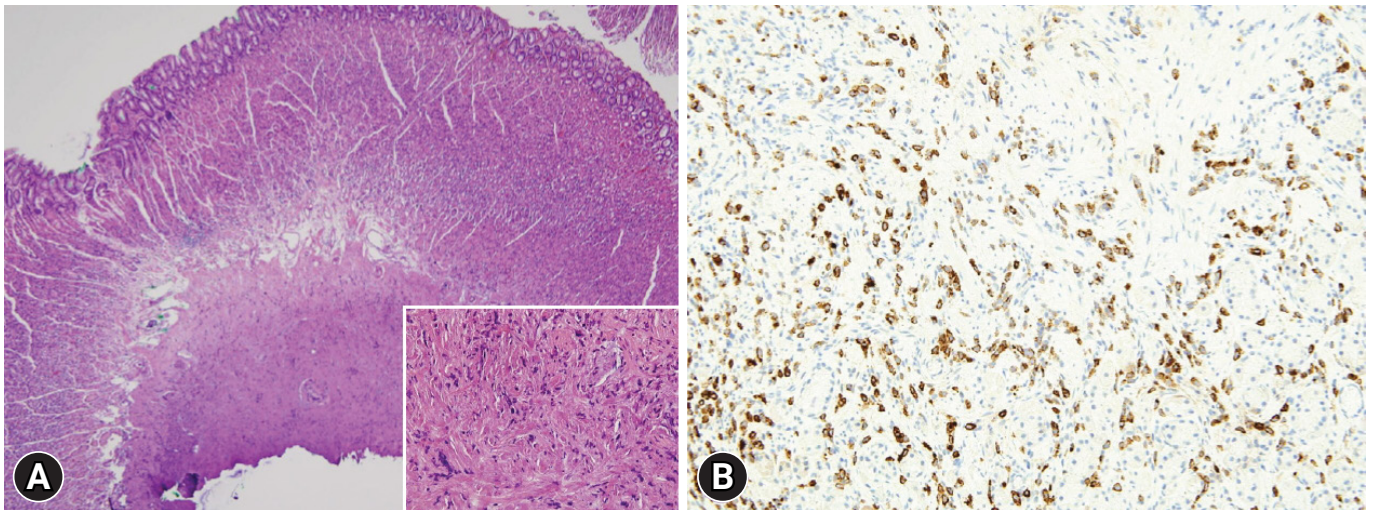


Fig. 2. (A) Strip biopsy shows that discohesive tumor cells infiltrate the submucosa of the stomach (hematoxylin & eosin, $\times 40$; boxed area: hematoxylin & eosin, $\times 400$). (B) The tumor cells are immunopositive for gross cystic disease fluid protein-15 (immunohistochemical stain, $\times 200$).

Author Contributions

Conceptualization: GHK; Data curation: SEJ, MWL; Resources: GHK, SL; Writing-original draft: SEJ, GHK; Writing-review & editing: SEJ, GHK, MWL, SL.

ORCID

So Eun Jeun <https://orcid.org/0000-0002-7541-6508>
 Gwang Ha Kim <https://orcid.org/0000-0001-9721-5734>
 Moon Won Lee <https://orcid.org/0000-0002-8411-6398>
 Sojeong Lee <https://orcid.org/0000-0002-6465-9811>

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