

Gastric metastasis of breast carcinoma 9 years after mastectomy

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To the Editor,

A 71-year-old woman was admitted for medical examination because of gastric symptoms such as nausea, vomiting, epigastric discomfort and weight loss.

She underwent 9 years before a right mastectomy for a poorly differentiated infiltrating ductal carcinoma of the breast, with a homolateral node dissection that showed metastasis in 3 lymph nodes. She was treated with 6 cycles of adjuvant chemotherapy, followed by hormonal therapy for 4 years.

Esophagogastroscopy revealed a nodular thickening, 5 mm in diameter, of the body of the stomach at the greater curvature. Gastric biopsy showed a neoplastic lesion infiltrating the *lamina propria*, difficult to detect at low power (Fig. 1A), more easily approachable at higher magnifications (Fig. 1B-C), composed of solid nests of cells with round to ovoid nuclei, small nucleoli, ill defined cellular borders and eosinophilic cytoplasm. No dysplastic changes of the gastric superficial and glandular epithelium were observed.

Immunohistochemistry showed positivity of neoplastic cells for cytokeratin 7, estrogen receptors (ER) (Fig. 1D) and mammaglobin (Fig. 1E). Gross Cystic Disease Fluid Protein-15 (GCDFP-15) immunoreaction

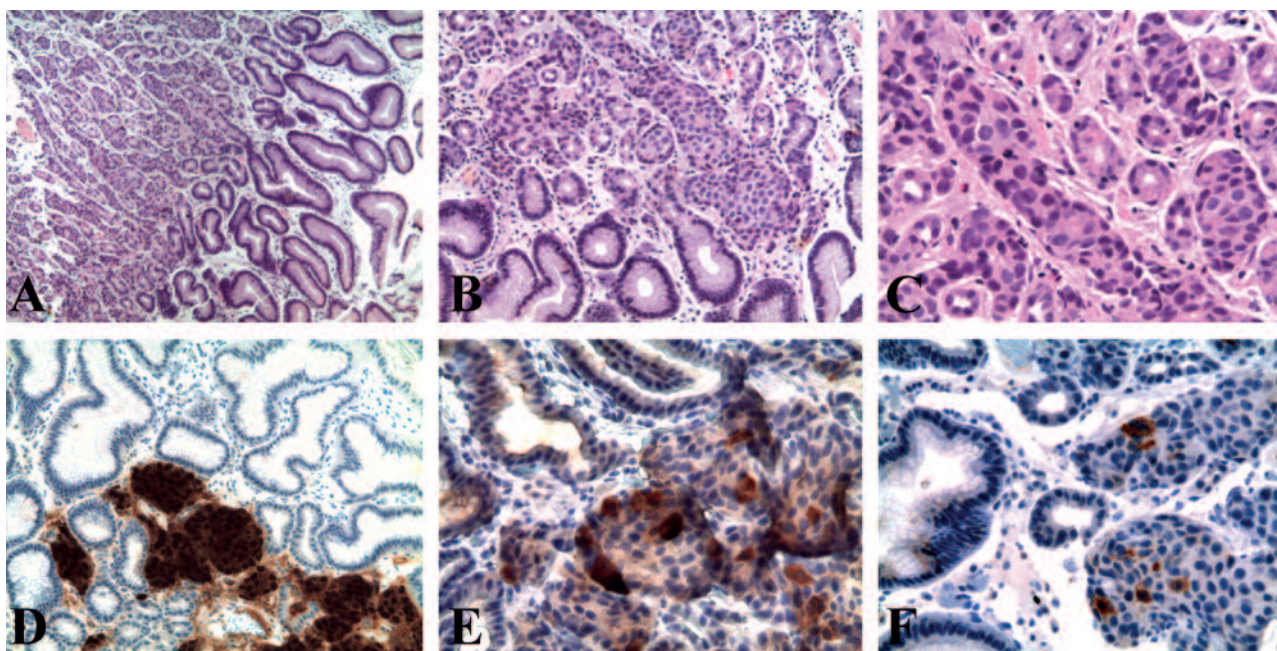


Fig. 1. — Gastric biopsy showing no dysplastic changes in the superficial and glandular epithelium (A, hematoxylin-eosin, original magnification 100×), but at high power examination solid neoplastic nests were seen infiltrating the *lamina propria* (B, hematoxylin-eosin, original magnification 200×). Cells are characterized by round to ovoid nuclei, small nucleoli, ill defined cellular borders and eosinophilic cytoplasm (C, hematoxylin-eosin, original magnification 400×). Immunohistochemistry showing a diffuse and strong positivity of neoplastic cells for estrogen receptors (D, original magnification 200×), a multifocal positivity for mammaglobin (E, original magnification 400×), and positivity for Gross Cystic Disease Fluid Protein-15 in a few cells (E, original magnification 400×).

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was detected in few cells (Fig. 1F). Progesterone receptors and cytokeratin 20 were negative.

The histological and immunohistochemical features were consistent with gastric metastasis of breast carcinoma. The patient was started on chemotherapy and died 2 years later from cerebral and pulmonary metastasis.

Gastric metastasis of breast carcinoma is a relatively uncommon event (1). Symptoms are similar to those of primary gastric carcinoma and the diagnosis can be difficult in cases of long tumor-free interval (1). The histological examination can show features of a poorly differentiated carcinoma that can be erroneously interpreted as a primary gastric carcinoma (2). Immunohistochemistry is mandatory for the differential diagnosis. ER immunostain, typically used for disclosing the mammary origin of a neoplastic lesion, may be expressed in gastric carcinoma (3). Therefore other more specific and sensitive diagnostic markers, such as mammaglobin and GCDFP-15 (4), should be used for

the immunohistochemical analysis, in order to make the right diagnosis and avoid an unnecessary surgical treatment (5).

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