

Case Report

Gastric cancer with a breast metastasis

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ABSTRACT

Metastasis of gastric carcinoma to the breast is relatively uncommon. It may cause difficulty in differentiating metastasis from primary breast cancer. Our patient was 64 year-old woman presented with dysphagia, weight loss and mass on right breast. Mammography showed mass on the right breast and computerized tomographic scan of the abdomen showed thickening of the gastric cardia and small curvature. Pathological evaluation of both breast mass and gastric lesion showed that there is a primary gastric carcinoma and the mass on the breast is the metastasis of this primary gastric carcinoma. In this report; we present a case of gastric carcinoma with metastasis to the breast.

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1. Introduction

Breast metastases from other tumors are extremely rare and constituting 2% of all breast cancers (Yeh et al., 2004). The most primary malignancies metastasizing to the breast are as follows; malign melanom, lung tumors, carcinoid tumors, ovarian tumors, renal cell tumors and gastrointestinal tumors (Boutis et al., 2006). We report a rare case of gastric adenocarcinoma metastasizing to the breast.

2. Case Report

In June 2006, a 64-year-old female presented with weight loss and mass on the right breast. Physical examination revealed a mass on the right breast. Mammography showed well-circumscribed, 9 and 8 mm diameters increased density in the lower quadrant of the right breast. Microscopic examination of the excisional biopsy of the breast revealed well-differentiated adenocarcinoma with surrounding hyaline-fibrous stroma. The neoplastic glands of adenocarcinoma were variably sized and had crowded nuclei with hyperchromatism and pleomorphism (Fig. 1a,b). On immunohistochemistry, the neoplastic cells were strongly positive for pan-CK (anti-human cytokeratin, reacting to a wide range of cytokeratin), epithelial membrane antigen and CEA. Estrogen receptors (ER, Clone SP1, Neomarkers) and progesterone receptors (PR, Clone 1A6, Neomarkers) were negative. Mucicarmine revealed the intracytoplasmic mucin in tumor cells. Computerized tomographic scan of abdomen showed thickening of

the gastric cardia and small curvature, around superior mesenteric arter pathologic lymph nodes. Upper gastrointestinal endoscopy demonstrated ulserovegetan mass of which obstructed lumen in cardia.

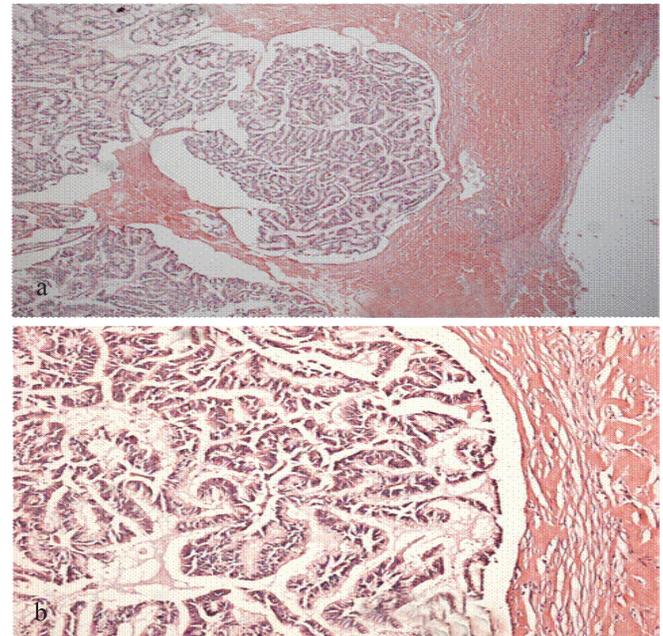


Fig. 1a,b Breast biopsy showing adenocarcinoma with prominent glandular structures (H&E, x25 and x100).

Histopathology of gastric biopsy specimens showed a well-differentiated intestinal-type gastric adenocarcinoma with papillary features (Fig. 2).

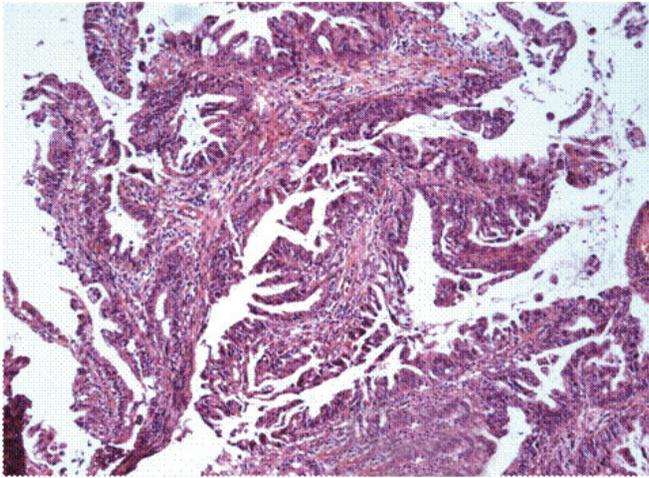


Fig. 2. Gastric biopsy showing intestinal-type gastric adenocarcinoma (H&E x100).

The mucin and the immunohistochemical staining profile of the stomach carcinoma were identical of the breast tumor. The case was diagnosed as gastric adenocarcinoma metastasis to breast by the help of clinical, radiological and pathological evaluations. After systemic treatment, the patient is still living for 13 months.

3. Discussion

Breast metastases from extra-mammary malignancies are in-

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frequent. The incidence is 1.7- 6.6 % in autopsy series (Boutis et al., 2006). An accurate diagnosis of breast metastasis is important because the treatment and outcome of primary and secondary malignancies of the breast are completely different (Yeh et al., 2004). Metastatic lesions are generally palpable. Multiple, diffuse, bilateral axillary lymph node involvement are quite rare (Alexander et al., 1989; Hamby et al., 1991; Cavazzini et al., 1993). The clinical presentation is the same for both types of tumors, it is not possible to clinically differentiate a primary breast tumor from a breast metastasis. Our patient presented with only breast mass without gastric complaints. On mammography, the metastatic lesions may appear as well circumscribed round, therefore difficult to distinguish from fibroadenoma and other benign solid lesions. Spicules and microcalcifications are absent in metastatic lesion except metastatic ovarian cancer (psammoma bodies). On mammography; the presence of spicular lesions and microcalcifications is consistent with primary breast carcinoma (Kwak et al., 2000; Qureshi et al., 2005). The mammographic findings of our patient is also similar to these findings. The treatment recommendation for gastrointestinal metastasis to breast cancer is systemic treatment of the metastatic disease. The response rate in one series was approximately 30% and survival exceeding 1 year has been reported (Tremblay et al., 2002). Surgical treatment must be reserved for patients who develop a complication such as obstruction or hemorrhage from the tumor.

Consequently; the onset of gastrointestinal symptoms in a patient with a history of breast mass should prompt the physician to rule out the possibility of breast metastases from primary gastric carcinoma.