

Synchronous Invasive Ductal Carcinoma and Mucosa-Associated Lymphoid Tissue (MALT) Lymphoma of the Breast

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Abstract

We described a rare presentation of synchronous extranodal marginal zone lymphoma of mucosa-associated lymphoid tissue (MALT) lymphoma and invasive ductal carcinoma of the breast. This case highlights that one should keep an open mind to the possibility of synchronous multiple primary neoplasms in patients with carcinoma.

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Key Clinical Message

We described a rare presentation of synchronous extranodal marginal zone lymphoma of mucosa-associated lymphoid tissue (MALT) lymphoma and invasive ductal carcinoma of the breast. This case highlights that one should keep an open mind to the possibility of synchronous multiple primary neoplasms in patients with carcinoma.

Case description

A 36-year-old woman was referred to our center with a painless palpable mass in the upper central portion of the left breast. She had no family history of breast cancer and no personal history of other malignancies. Ultrasonography (US) showed an approximately 3.5x3cm irregularly shaped, indistinct, hypoechoic mass with multiple ipsilateral enlarged axillary lymph nodes (Fig. 1A). Preoperative magnetic resonance imaging (MRI) showed an approximately 3.9x3.5cm irregular mass with heterogeneous enhancement and multiple enlarged axillary lymph nodes (Fig. 1B). On MRI, an irregular mass with heterogeneous enhancement was found on the upper inner quadrant of the right breast, and we recommended MR-guided US for this lesion (Fig. 2A). On MR-guided US, an approximately 1.4 x 0.4cm irregular-shaped and indistinct mass was detected that correlated to the MR lesion (Fig. 2B). US-guided core biopsies for both breast lesions and the left axillary lymph node were performed, and the pathologic results confirmed invasive ductal carcinoma in the left breast, suggested MALT lymphoma in the right breast, and confirmed metastatic adenocarcinoma in the left axillary lymph node. Although the synchronous occurrence of multiple neoplastic processes is uncommon, the possibility of synchronous breast carcinoma and primary breast lymphoma should be considered to avoid inaccurate staging and delays in diagnosis and to ensure good therapeutic and prognostic implications (1, 2).

Conflict of interest

The authors have stated that they have no conflicts of interest.

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Author contribution

JH Byon and EJ Choi: contributed to the design and implementation of the research, analysis of the results, and writing of the manuscript.

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Figure legend

Figure 1. Primary invasive ductal carcinoma in the left breast was demonstrated on ultrasound (US) and magnetic resonance imaging (MRI).

1A: Invasive ductal carcinoma involving the left upper breast was revealed on ultrasound as an irregularly shaped, indistinct, hypoechoic mass.

1B: Maximum intensity projection (MIP) of breast MRI showed invasive ductal carcinoma involving the left whole breast with advanced axillary lymph node metastasis.

Figure 2. Synchronous mucosa-associated lymphoid tissue (MALT) lymphoma was shown on magnetic resonance imaging (MRI) and ultrasound (US).

2A: Irregular mass with heterogeneous enhancement was found on the upper inner quadrant of the right breast on breast MRI.

2B: On MR-guided US, an approximately 1.4 x 0.4cm irregular-shaped and indistinct hypoechoic mass was found. MALT lymphoma was diagnosed on subsequent core needle biopsy.



