Case Report

The Pathological Findings of Vasculitis Simultaneously Occurring with Carcinoma, Invasive Breast Carcinoma in a Patient with Behçet’s Disease

Makoto Kammori*1, Ei-ichi Tsuji*1, Toshihisa Ogawa*1, Niwa Takayoshi*1, Rie Kurabayashi*1, Kaiyo Takubo*2, and Michio Kaminishi*1

*1Division of Breast and Endocrine Surgery, Department of Surgery, The University of Tokyo, *2Department of Clinical Pathology, Tokyo Metropolitan Institute of Gerontology, Tokyo, Japan.

We present a rare case of invasive right breast carcinoma in a 72-year-old woman with Behçet’s disease (BD). A radical modified right mastectomy and axillary lymphadenectomy were performed and postoperative hormonal therapy with the aromatase inhibitor anastrozole was administered for adjuvant therapy. At 10 months follow-up the patient remains disease free. Malignancies associated with BD are very uncommon. The pathological findings showed small vessel vasculitis and lobulitis of the breast in association with invasive carcinoma.


Key words: Behçet’s disease, Breast cancer

Behçet’s disease (BD) is a vasculitis of unknown origin, characterized by recurrent systemic manifestations that are traditionally defined by oral and genital ulcers and uveitis; however, cutaneous, articular, neurologic, vascular, intestinal, pulmonary and/or mammary manifestations may also be observed1. The association of malignant disease with BD is rare. In the world literature 112 cases of malignancies associated with BD were found2. This patient had a history of prolonged use of colchicine and prednisolone3 as treatment for BD. We herein report a case of breast carcinoma that may have been associated with BD.

Case Report

The patient was a 72-year-old woman who reported recurrent painful erosive lesions of the oral mucosa and tongue accompanied by less frequent genital ulcers since 28 years of age. The patient also presented with iridocyclitis and thrombophlebitis on the skin of her foot. BD was thus diagnosed according to the ISG criteria and a skin biopsy. Incomplete BD had been diagnosed and she had therefore been taking 0.5 mg colchicine three times a day for the past 15 years, 5 mg prednisolone every 2 days, and 81 mg aspirin everyday for the past 5 years. She had neither diabetes mellitus (DM) nor rheumatoid arthritis (RA).

In July 2005 the patient was urgently referred to our department for examination of a hard palpable right breast lesion (size 26×27 mm) at the 5 o’clock position. The nipple tumor distance (NTD) was 6 mm from the tumor. These symptoms led to a clinical suspicion of a tumor. Mammography showed an increased focal density in the retroaerolar mammary parenchyma with pleomorphic and segmental calcification in her right breast (Fig 1A, B). Ultrasound showed a hypoechoic nodule with poorly defined margins at the area surrounding the right breast (Fig 2).

The imaging abnormalities were considered suspicious for malignancy. As a result, core needle biopsy (CNB) was performed on one of the palpable lesions. Invasive ductal carcinoma was seen on CNB. The patient underwent a modified radical right mastectomy and axillary lymphadenectomy. The pathological examination revealed invasive a solid-tubular type ductal carcinoma, with no fat...
Fig 1. A 72-year-old female with Behçet's disease. A: Medio-lateral oblique (MLO) right mammography. B: Cranio-caudal right mammogram. Mammography showed an increased focal density in the retroaero-lar mammary parenchyma with pleomorphic and segmental calcifications in her right breast.

Fig 2. Ultrasound showed a hypoechoic nodule with poorly defined margins in the right breast.

invasion (Fig 3A, B) or lymph node metastasis. Lymphocytic lobulitis and phlebitis were occasionally observed in the mammary stroma far from the carcinoma tissue (Fig 4A, B). These histologic findings suggested breast involvement by BD. The disease stage was determined to be pT2, pN0, pMx. Immunohistochemical staining for estrogen (ER) and progesterone (PR) receptors was performed using the streptavidin-biotin-peroxidase method. ER and PR were expressed in 70%, moderately, and 30%, moderately in the breast carcinoma, respectively. Thereafter, postoperative hormonal therapy with the aromatase inhibitor anastrozole was given as adjuvant therapy. After 10 months of follow-up the patient remains free disease but she has also demonstrated complications of wound infection and a wide area of skin necrosis after a mastectomy for BD.

Discussion

BD was first described in 1937 by Hulusi Behçet and it tends to be most frequently seen in the Middle East, Japan and Mediterranean countries. It is a multisystem disorder that is characterized by vascular, neurological, ocular, gastrointestinal, mucocutaneous, and articular abnormalities. Malignancies can be seen in association with BD, but they are very rare. To date, approximately 41 cases have been reported and nearly half of them were solid tumors. Except for one