A Case of Invasive Lobular Carcinoma of the Breast

MASAYUKI NAKAMURA*, **, AKIRA TANGOKU**, MASAAKI OKA**
AND TAKASHI SUZUKI†

*Department of Surgery, Tokuyama Hospital, Tokuyama, Yamaguchi 745,
**The Second Department of Surgery, Yamaguchi University School of Medicine, Ube, Yamaguchi 755 and
†Department of Surgery, Ube Central Hospital, Ube, Yamaguchi 755-01, Japan

Summary: A 43-year-old woman presented to our department with left breast lump, measuring 10 mm×10 mm×6 mm. On physical examination and mammography, the lump was suspected to be due to mastopathy, but malignancy could not be excluded based on ultrasonography. Excisional biopsy showed that it was an invasive lobular carcinoma. A modified radical mastectomy was performed after obtaining informed consent. She remained disease-free seven years after surgery.

Key words invasive lobular carcinoma, breast conservation surgery

INTRODUCTION

Invasive lobular carcinoma (ILC) is a rare type of breast cancer, classified as a special type in the general rule for clinical and pathological recording of breast cancer [1]. This paper describes a patient with ILC.

CASE REPORT

A 43-year-old woman presented to our department on August 7, 1990 with a left breast lump. Physical examination revealed a vague thickness in the upper outer quadrant of the left breast 60 mm away from the nipple. The axillary lymph nodes were not palpable. Mammography did not show any tumor shadow, calcification, parenchymal asymmetry or architectural distortion (Fig. 1). Ultrasonography showed an irregular heterogeneous mass with no posterior echo attenuation, measuring 10 mm×10 mm×6 mm in diameter (Fig. 2).

Excisional biopsy was performed in August 17, 1990. Microscopically, the tumor consisted of small, non-cohesive uniform cells arranged in a linear fashion (Fig. 3). These cells had pale nuclei. There were few mitotic figures. It was diagnosed as ILC. Hormone receptor analysis was not tested. We obtained informed consent from the patient. Instead of breast conservation surgery with irradiation to the residual breast, she chose to have modified radical mastectomy, which was performed in August 30, 1990. Subsequent histology revealed no residual tumor in the resected breast and there were no lymph nodes involvement. The tumor was staged as t1n0m0 (stage I) according to the general rule for clinical and pathological recording of breast cancer [1]. Adjuvant chemo-endocrine therapy as well as irradiation was not given. She remained disease-free seven years after the operation.

DISCUSSION

ILC was first classified by Foote and Stewart [2] following recognition of lobular carcinoma in situ by the same authors [3]. Since then many cases of ILC have been documented in literature. It arises in the lobules and the terminal ducts. When confined the lobules and the terminal ducts, it is known as the in situ form and when it spreads outside these structures, it is as the invasive form.

Recent incidence of ILC in all breast cancer in Europe and America has been reported to be between 6.3% to 12.8% [4-6]. In Japan, a collective review by Nomura [7] in 1981 revealed an overall incidence of
1.19% of 29,719 cases and that by Izuo [8] in 1983 revealed above 2%. The incidence tends to be increased in Japan due to a change towards Euro-American life style. Based on the physical findings and mammography, the tumor in our case was suspected to be due to mastopathy. However, as malignancy could not be excluded on ultrasonography, excisional biopsy was done. Koike et al. [9] also reported that ILC presented with difficulty in diagnosis by the physical examination and that ultrasonography was more useful than mammography in diagnosing these lesions. Rosen [10] described tumor cells of ILC as infiltrating in linear arrays ("single file") along and around the arborizing duct, the latter serving as scaffolding for these small, malignant cells to permeate the parenchyma without a central nidus. This feature of ILC may help to explain why the tumor may be palpable as a vague thickness rather than as a discrete lesion. Mendelson et al. [11] reported that the most common mammographic pattern of ILC was a poorly defined asymmetric density with architectural distortion for this feature. Although we did not perform aspiration biopsy cytology before excisional biopsy, it had been recognized as a useful method for diagnosis of breast cancer. However, cytological diagnosis of ILC has been reported to be difficult, because most of these cells are small, not markedly atypical and non-cohesive and obtaining sufficient samples for cytology is also difficult [9,12,13].

The prognosis of ILC in Japan is better than that in Europe and America. Watanabe [14] reported that the 5-year and 10-year survival rates in her 93 cases of ILC were 86.7% and 74.4%, respectively. The 5-year survival rate of scirrhous carcinoma was similar to the 10-year survival rate of ILC based on the tumor size. On the other hand, the 5-year survival rate in Europe and America has been reported to be between 57% to 84% and many authors concluded that the prognosis of ILC was the same or better than invasive ductal carcinoma (IDC) [5,6,15]. These data were derived from patients, who underwent mastectomy.

Digison et al. [15] and Watanabe [14] reported that ILC was slow-growing and had a tendency to late recurrence. Contralateral carcinoma in ILC was also common. The reported rate of 5.9% [7] was higher than that of all bilateral breast cancer in Japan which was about 3.3% [16]. Patient with ILC will have to be needed diligent long term follow-up, including the contralateral breast examination.

Recently, breast conservation surgery was performed on 20.4% of all breast surgeries in Japan [17]. However, the role of breast conservation surgery in ILC is controversial as ILC is well known to be multicentric. Warner [18] reported that residual foci of lobular carcinoma in situ were seen in approximately 70% of mastectomy specimen. Mate et al. [19] reported that as the rates of tumor recurrence in the residual breast after breast conservation surgery with irradiation to residual breast in ILC and IDC patients were 25% and 13%, respectively, ILC was identified as a predictor of
increased tumor recurrence in the residual breast. However, recent rates of tumor recurrence in the residual breast after breast conservation surgery with irradiation in ILC were between 5.2% to 14.5% [20-22]. Hence breast conservation surgery with irradiation to residual breast may have a role in treating...
ILC. Median follow-up in these reports was between 5.1 year to 6.9 year. As ILC is slow-growing and late recurrence is common, longer follow-up is needed.

The presence of estrogen receptor in ILC is higher than that in IDC in Japan [7] as well as Europe and America [23,24]. This means that ILC is hormone-dependent.

In summary, breast conservation surgery with irradiation to residual breast is recommended to early ILC if a clear margin can be obtained with acceptable cosmetic result and the patient can be followed up closely and firmly.

REFERENCES


