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Awareness of Invasive Micropapillary Breast Carcinoma is an Essential Requirement

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To the Editor,

Invasive micropapillary carcinoma (IMPC) of the breast is a popular and important malignant entity. However, it is one of the relatively rare tumors and shows clinical behaviors different from other breast tumors. Thus, a relatively large series is essential in forming a roadmap for its clinical management. The article by Eren Kupik ve Altındağ[1] caught our attention. They described the main pathological features of this patient group in their database. They also reported that patients with IMPC have higher overall survival and locoregional recurrence-free survival rates than reported in the literature and were consistent with infiltrative ductal carcinoma (IDC). They revealed that this is attributed to the higher estrogen receptor (ER) and progesterone receptor (PR) positivity rates.

This entity was first described by Petersen[1] and later identified as IMPC by Siriaunkgul and Tavassoli in 1993.[2,3] The 2012 World Health Organization classification of breast tumors included IMPC as a rare subtype of invasive ductal tumors. IMPC is a rare histological tumor first described in invasive ductal breast cancer. However, it was also reported to originate from malignancies in other organs such as the lungs, bladder, ovaries, gastrointestinal tract, or salivary glands. Unfortunately, the presence of IMPC in breast tumors is associated with the aggressive behaviors of the neoplasm. Therefore, IMPC was considered to have a worse prognosis than IDC.[4] Some studies have also reported that negativity of ER and PR receptors, which can be considered poor prognostic factors, is more common in this histopathological subtype.[5] However, whether there is a difference in prognosis between pure and mixed types is controversial; if there is such a difference, it may be related to the hormone receptor status. Accumulating data will help define treatment boundaries and resolve controversial situations in relatively rare cases. Therefore, experienced centers should collect high-level evidence for this pathological subtype. Our data in this subtype show that patients present with relatively unfavorable prognostic factors and do not have an inferior prognosis if treated appropriately.

In our 2004 patient series of patients with breast cancer, 11 patients with a median age of 52 (32-77) years presented these pure micropapillary pathological features. Seven patients underwent breast conservative surgery, and four had modified radical mastectomy. Axilla treatment was axillary curettage in seven patients and sentinel lymph node sampling in four patients. Nine patients had postoperative radiotherapy. Six patients with axillary curettage had axillary lymph node positivity. Five patients had regional lymphatic irradiation in addition to radiotherapy to the breast or chest wall. One patient with metastatic disease had not received local treatment and was treated with systemic chemotherapy and hormone therapy. Regarding systemic treatment, two patients received neoadjuvant chemotherapy, and 12 received adjuvant chemotherapy. In addition, 10 patients received hormonotherapy for a median of 10 (2-10) years.

Pathologically, four of these patients had stage I disease, one had stage II, five had stage III and, and one had stage IV. Ten patients (91%) had ER-positive receptor status, nine patients 82%) had PR-positive receptor status, and only one patient had triple-negative hormone receptor status. ER and PR positivity rates were 70% and 66% in all other patients, respectively. Lymphovascular invasion was noted in 6 (54%) patients, and perineural invasion was positive in 6 (54%) patients, and the corresponding rates in all other patients diagnosed with breast cancer were 47% and 19%. After the axillary curettage or sampling, 6 (55%) patients were found to have axillary lymph node-positive status and 5 (45%) had a negative status. Fifty-six of all other patients had pathologically positive axillary nodes.

Only one patient had a local recurrence, and another patient with initially metastatic disease experienced systemic progression during the follow-up period. The median overall survival was 58.4 (13.2-184.8) months for pure micropapillary type carcinomas and 75.6 (13.2-208.5) months for other pathological subtypes ($p = 0.2$).

Contrary to some publications on this pathological subtype, only one patient in our series had triple-negative disease characteristics. However, more than half of our patients had lymphovascular or perineural invasion at presentation. In addition, six patients had

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more than three positive lymph nodes. According to current guidelines, this histopathology does not affect the treatment decision for now. Indeed, the low rate of micropapillary subtypes in the published series may indicate that this issue needs attention. The limited data on this topic must be more consistent to influence this decision. However, pathologists should be mindful of these pathological features, and clinicians should be aware of such a relatively aggressive subtype. However, combining national and international clinical data on this clinical entity and thus publishing a relatively large series will help fill the need for more information on this topic.

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