Abstract

Characteristics and Outcome of Early-onset Breast Cancer Patients at Siriraj Hospital

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The Thai Cancer, 2016, 31.53.008

**Background:** The incidence of breast cancer in women aged ≤ 35 years is relatively low. Clinical characteristics and outcome may be different from older women. There is conflicting data regarding prognosis of these women.

**Objective:** To determine clinical characteristics, treatments, outcome and prognostic factors for survival in patients with early-onset breast cancer treated at Siriraj Hospital.

**Method:** We retrospectively reviewed charts of 170 patients with early-onset breast cancer who were diagnosed between January 2001 and December 2007. Early-onset breast cancer patients were defined as patients aged ≤ 35 years at the time of diagnosis. The clinical and pathological features, treatments and clinical outcome were collected and analyzed.

**Results:** A total of 3,138 breast cancer patients were seen at the Division of Medical Oncology at Siriraj Hospital between January 2001 and December 2007, 170 patients (5.4%) were diagnosed at or before the age of 35. Patients were found to have stage I 17.1%, stage II 42.9%, stage III 33.5% and stage IV 6.5%. Forty percent of these patients (95% CI 32%, 47%) had stage III and IV diseases. Invasive ductal carcinoma was the most common type (90.5%). Tumor size was > 2 cm. in 78%, 44% were node-positive, and 42% were poorly differentiated tumors. Forty-seven percent, 38% and 15% of the tumors were positive for ER, PgR and HER-2/nue, respectively. With regards to treatments, of the 159 patients with stage I-III: 100 patients (62.9%) received mastectomy, 53 patients (33.3%) had lumpectomy, 6 did not have surgery; 123 patients (77.3%) had axillary lymph node dissection while 30 patients (18.9%) received sentinel node biopsy; 92 patients (57.9%) had either breast or chest wall radiation; 21 patients (13.2%) received neoadjuvant chemotherapy, 145 patients (91.2%) received adjuvant chemotherapy and 80 patients (50.3%) received adjuvant tamoxifen. The median follow-up time was 36.6 months. 5-year DFS in stage I-III patients was 66% and 5-year OS in this cohort of patients was 89%. In multivariate analysis, the only significant prognostic factor that affected DFS was pathological node status.

**Conclusion:** More than one-thirds (40%) of early-onset breast cancer patients presented with stage III and IV tumors. Most patients (>90%) received adjuvant chemotherapy. One-half received tamoxifen as adjuvant endocrine therapy. 5-year DFS was 66%. Pathological node status was a significant prognostic factor for DFS.