Adjuvant chemotherapy in breast cancer with 10 or more positive lymph nodes: Nonrandomized retrospective comparison of adriamycin-containing regimens

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Background Although adjuvant chemotherapy generally benefits women with node positive breast cancer, patients with 10 or more involved axillary lymph nodes have a poor prognosis. The purpose of this study is to evaluate the treatment efficacy of adriamycin-containing adjuvant chemotherapy in high-risk breast cancer with 10 or more nodes, and to compare these results with those of high-dose chemotherapy (HDC) followed by autologous stem cell transplantation(SCT), which was performed during the same period in our institution.

Methods Between January 1997 and December 1999, 73 patients who had resected breast cancer with 10 or more nodes and received adriamycin-containing adjuvant chemotherapy were included in this study. Pathology records and clinical data on these patients were reviewed, retrospectively.

Results Median age was 46 years (range 30-67). Thirty-one patients were planned to receive 4 courses of adriamycin followed by 8 courses of CMF (cytoxan+ methotrexate +5-fluorouracil), but only 22 of these patients received this full course of chemotherapy(4A-8CMF); 2 failed to initiate CMF, 7 omitted 4th course of adriamycin due to transcriptional error of the protocol. Twenty-six patients received 5 or more courses of CAF (cytoxan+adriamycin+5-fluorouracil); 16 patients received CAF followed by HDC with autologous SCT. Radiotherapy was given to 48 patients(65.8%). With a median follow-up of 23 months, relapse was observed in 21 patients(28.8%) and local recurrence at chest wall or operation site were observed in 4 patients despite of radiotherapy. Three-year DFS and OS of total patients were 61.5% and 85.1%, respectively. Patients treated with HDC followed by SCT showed a trend toward better 3-year DFS than those treated with chemotherapy alone(86.5% vs 53.3%, P-value 0.069), but it did not impact on survival. Radiotherapy was a statistically significant prognostic factor in patients treated with chemotherapy alone without SCT(3-year DFS 69.9% vs 15%, 3-year OS 92.4% vs 53.4%, P-value <0.05). There was no significant difference in survival rate and relapse rate among 4A-8CMF, CAF and HDC groups.

Conclusion Our data showed that treatment results of adriamycin-containing adjuvant chemotherapy in breast cancer with 10 or more nodes was moderately effective and similar among 3 groups. Although HDC group showed a trend toward better DFS, further follow-up is needed.