

SURVIVAL BENEFIT WITH GM-CSF USE AFTER HIGH-DOSE CHEMOTHERAPY IN HIGH-RISK BREAST CANCER

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Aims and background: The role of high-dose chemotherapy in breast cancer has not been fully defined. It has been concluded that new trials should focus on defining potential subgroups that are more likely to benefit from high-dose chemotherapy. We compared survival differences in patients receiving human granulocyte-colony stimulating factor (G-CSF) or granulocyte-monocyte colony stimulating factor (GM-CSF) after high-dose chemotherapy with stem cell support.

Methods: High-risk non-metastatic breast cancer patients (axillary lymph node involvement more than 8) aged 16 to 65 years and with a performance status ≤ 1 underwent high-dose chemotherapy with autograft. Written informed consent was obtained from every patient, and the study was approved by the local ethics committee.

Results: For 54 eligible women, the median follow-up was 41.4 months. The five-year disease-free survival was 45.7%. The five-year projected overall survival rate was 53.9%. Among them, patients who received GM-CSF (n = 12) posttransplant lived longer than the patients who received G-CSF (n = 15) (five year survival rates, 46.6% vs 75%, $P < 0.050$). The patients who received GM-CSF posttransplant had fewer relapses (5 vs 9). However, between the two groups there was no statistically significant difference regarding disease-free survival rates calculated with the Kaplan-Meier method (58.8% vs 40%; $P = 0.121$).

Conclusions: Patients receiving GM-CSF posttransplant lived longer and they had fewer relapses than those who received G-CSF. This result merits consideration. The antitumor activity of GM-CSF should be investigated further in prospective randomized trials.

Key words: autograft, breast cancer, granulocyte-colony stimulating factor, stem cell transplantation, survival.