

CHEMOTHERAPY TREATMENT OF PATIENTS WITH METASTATIC BREAST CARCINOMA

by: Gil Lederman, MD

One of the most commonly asked questions for those with breast cancer that has spread throughout the body is why proceed with chemotherapy.

It is well-known that for those with early or localized breast carcinoma, long-term disease-free survival is very high. Chemotherapy is often given in the adjuvant setting to increase the likelihood of disease-free survival. Adjuvant treatment is treatment given in the absence of known disease but in the presence of known risk factors for recurrence.

In a recently published article by Greenberg et al from the M.D. Anderson Cancer Center, chemotherapeutic treatment for 1581 patients with metastatic breast carcinoma was analyzed. Minimum follow-up of patients was ten years. Most commonly administered drugs included Fluorouracil, Adriamycin and Cyclophosphamide followed by Cyclophosphamide, Methotrexate and Fluorouracil. In certain situations, other drugs were used and later treatments included additional Tamoxifen hormonal therapy.

Patients were analyzed by various prognostic indicators and outcome was reported.

Of these 1581 patients treated with first line treatment, 68 patients remained without progressive disease either dead or alive and 41 patients were alive - 30 of whom had a complete response to chemotherapy previously, seven who had a partial response and three who had no change, with one having progressive disease after first line treatment.

Of those patients treated for metastatic carcinoma, 16.6% had a complete response after chemotherapy, with 48% having a partial response. Four-hundred-eleven patients had no change in the amount of cancer present after chemotherapy and 141 patients developed progressive disease on chemotherapy. Seven patients who had a complete response died before five years of follow-up but without recurrence of their disease. Two-hundred-seven patients had progressive disease in the first five years and 201 died of their cancer. Forty-nine patients who had complete response had no further cancer five years after chemotherapy and 26 of these remained free of cancer more than 191 months on average after treatment with a range of up to 20 years.

This chemotherapy data is important in that a significant share of patients were rendered free of cancer and many survived many years after treatment.

Who is most likely to have a complete response to chemotherapy? Those patients with a minimal amount of disease and good function. Soft tissue metastases are more likely to respond than bone metastases. Also, patients who have had complete responses were more likely to be younger, as well. Patients who were pre-menopausal had a higher complete response rate to therapy than the overall group.

Response to chemotherapy is a very important prognostic indicator. Only four of 766 patients who had a partial response and only two of 372 patients who had no change after chemotherapy remained free of progressive disease five years out.

Of course, a treatment strategy developed in recent years has been the performance of bone marrow and stem cell transplants in an attempt to increase dose of chemotherapy, thereby hoping for a superior outcome.

An accompanying editorial by Dr. Sledge of the Indiana University School of Medicine raises several important points including what the outcome differences would have been if other chemotherapies or in fact no chemotherapy was used. He points out the potential benefits of using Adriamycin as part of the combination chemotherapy regime.

He further goes on to question "Do we treat all patients aggressively with curative intent in the knowledge that in the long run only a small fraction will be saved at the price of unwarranted toxicity for many? Or do we adopt a policy of the greatest good for the greatest number focusing on effective palliation for the 99% we cannot cure?" He concludes "The final message of the M.D. Anderson series is one of hope. Some patients clearly are alive and disease-free a decade or more after initial relapse. The fraction may be small, but the accomplishment is not. The patient with metastatic breast cancer is in a desperate but not uniformly hopeless situation. Perhaps we might, in the not too distant future, expand the message of hope to the majority of patients with metastatic breast cancer. To do so will probably require something quite different than today's combination chemotherapy. But the dream is not an impossible one."