Less Toxic Drug Prolongs Survival in Metastatic Breast Cancer

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(PhysOrg.com) -- Research from the Northwestern University Feinberg School of Medicine has found that a less toxic, solvent-free chemotherapy drug more effectively prevents the progression of metastatic breast cancer and has fewer side effects than a commonly used solvent-based drug.

A national study led by William Gradishar, M.D., director of breast medical oncology at the Robert H. Lurie Comprehensive Cancer Center of Northwestern University, found that the drug Abraxane prolonged progression-free survival by almost seven months compared with Taxotere, which is part of a class of solvent-based drugs called taxanes.

"It nearly doubled progression-free survival," said Gradishar, who also is a professor of medicine at Northwestern's Feinberg School and a physician at Northwestern Memorial Hospital.

The study will be published May 26 in the Journal of Clinical Oncology.

Chemotherapy drugs need to be dissolved in a chemical, called the "delivery system", before they can be injected into the blood stream. Abraxane uses albumin, a human protein, to deliver the chemotherapy. It does not contain chemical solvents. The generic name for Abraxane is nab-paclitaxel.

The study showed Abraxane also was much less toxic to patients. Gradishar said solvents are responsible for many of the side effects of

chemotherapy including a drop in the white blood cell count and numbness or tingling in the fingertips.

In the study, the Abraxane was administered on a weekly schedule compared to injections every three weeks of Taxotere.

"This is a win-win finding," Gradishar said. "The weekly schedule of Abraxane has more anti-tumor effects and is better tolerated than Taxotere. There is also evidence that Abraxane is able to deliver the chemotherapy drug more effectively to the tumor."

"These results suggest that weekly nab-paclitaxel may be an appropriate alternative to docetaxel (Taxotere) in the first-line treatment of patients with metastatic breast cancer," Gradishar said.

The Phase II, open-label, randomized clinical study involved 300 patients with previously untreated metastatic, stage 4 breast cancer. The results were assessed by an independent radiology company and study investigators. The study was designed to evaluate the safety and efficacy of three doses of Abraxane versus the highest standard dose of Taxotere.

Metastatic breast cancer is characterized by the spread of a malignant tumor from the breast to other parts of the body. It is estimated that nearly 155,000 women in the U.S. are currently living with metastatic breast cancer.

The study was supported by Abraxis BioScience, which manufactures Abraxane. Gradishar is a member of the advisory boards for Abraxis and sanofi-aventis U.S., which manufactures Taxotere. He has received grant support from Abraxis and sanofi-aventis.

Provided by Northwestern University (news : web)