Drugs 2006; 66 (7): 949-950
0012-6667/06/NaN-0949/$44.95/0

Albumin-Bound Paclitaxel In Metastatic Breast Cancer

A Viewpoint by Mark Harries and Peter Harper

Department of Medical Oncology, Guy's and St Thomas' NHS Foundation Trust, Guy's Hospital, London, England

The taxanes, paclitaxel and docetaxel, are among the most important drugs in the modern treatment of metastatic breast cancer. Both agents are also now commonly used in adjuvant chemotherapy regimens for women with high-risk disease. For women with HER-2 over-expressing breast cancer, schedules containing taxanes plus trastuzumab are now routinely used in both early and advanced disease.

Despite their widespread use, both docetaxel and paclitaxel are associated with significant toxicities including alopecia, fatigue, myalgia, nail changes, myelosuppression and neuropathy. Infusion reactions, at least in part caused by the synthetic vehicles that are a component of conventional preparations, are also seen in a minority of patients. The frequency and severity of these reactions is reduced with the use of premedication schedules containing antihistamines together with moderate to high doses of corticosteroids.

One approach to improving the therapeutic index of paclitaxel has been the development of *nab*®-paclitaxel (ABRAXANE®), in which paclitaxel is bound to nanoparticles of the naturally occurring vehicle for hydrophobic molecules, albumin. In an initial phase II study, myelosuppression and peripheral neuropathy were less frequent and less severe than would have been expected with the parent compounds. Hypersensitivity reactions were very rare despite the drug being given without premedication.

A phase III trial comparing *nab*-paclitaxel to conventional paclitaxel for women with metastatic breast cancer has been conducted. *nab*-Paclitaxel was found to have superior response rates, and time to progression and to be associated with less neutropenia and fewer hypersensitivity reactions but more neuropathy than paclitaxel. It is administered without premedication and over <1 hour.

When single-agent 3-weekly paclitaxel is being considered for metastatic breast cancer, *nab*-paclitaxel is an attractive alternative, especially where there is concern over the use of corticosteroids. However, before it completely replaces conventional taxanes further information is required to see how it compares with docetaxel and whether it can be combined with trastuzumab and other drugs. Nevertheless, more than a decade after the introduction of taxanes for metastatic breast cancer it is encouraging that this class of cytotoxics will now be available in more effective, less toxic and more convenient regimens. ▲