

The Role of Taxanes in the Management of Patients with Early Breast Cancer: a Review of the Clinical Evidence and Molecular Mechanisms of Resistance

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Abstract

The taxanes docetaxel and paclitaxel have established roles as two of the most active agents in the treatment of metastatic breast cancer. These two drugs have now been incorporated into the management of early breast cancer. A first generation of trials has explored whether the addition of taxanes, either sequentially or in combination with adjuvant anthracycline-based chemotherapy, improves outcome for patients with early breast cancer. Our systematic review of randomized trials of adjuvant systemic therapy identified 12 reported trials comparing a taxane-containing group with a non-taxane-containing control group in women with early breast cancer. Seven out of 12 trials and all three meta-analyses have established a statistically significant benefit in disease free and/or overall survival from the addition of paclitaxel or docetaxel in anthracycline-based adjuvant chemotherapy. A second generation of trials is now underway, which are based on the assumption that taxanes are beneficial in the adjuvant setting and are comparing the different taxane dosing regimens and the addition of further agents.