Flims Alumni Club workshop

E7. Taxanes as adjuvant therapy for breast cancer

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Taxanes are among the most active agents in the treatment of metastatic breast cancer. Their activity and lack of cross resistance with anthracyclines in the metastatic setting provided the motivation to evaluate their efficacy in the adjuvant setting. Since then, multiple studies have examined the role of adjuvant taxanes in randomised clinical trials. Initial trials compared standard anthracycline-based regimes with newer regimes in which paclitaxel or docetaxel were added concurrently or sequentially. Next generation trials investigated the optimal integration of taxanes into adjuvant anthracycline-based therapy with more focus on the schedule and the choice of taxane. Short courses of non-anthracycline taxane regimes were also compared to standard anthracycline-based regimes in an attempt to improve efficacy and to avoid cardiotoxicity of anthracyclines. So far, more than 50,000 women have been enrolled in adjuvant taxane trials. Three meta-analyses and the preliminary results from the Early Breast Cancer Trialists' Collaborative Group (EBCTCG) overview, which randomised more than 20,000 women to taxane- versus non-taxane-containing chemotherapy, have demonstrated that addition of taxanes to adjuvant therapy improves both disease and overall survival, the absolute benefits being in the range of 3–5% for disease free survival and 2–3% for overall survival.[1–4] However, the results of individual trials varied due to use of different taxane regimens and populations under study. In addition, the strength of the anthracycline comparator arm might be important in the evaluation of the efficacy of taxanes as suggested by the NCIC CTG MA.21 trial and the preliminary presentation of the 2005 EBCTCG overview at the 2007 San Antonio Breast Cancer Symposium (SABCS).[5]

Unfortunately, none of the adjuvant taxane trials were designed to evaluate the molecular heterogeneity of breast cancer; therefore, the benefits were extrapolated to all patients with diverse molecular characteristics. Accompanying translational research efforts have aimed at defining patient subgroups who are most likely to benefit from addition of a taxane in the adjuvant setting but the subclassification of patient populations by ER, PgR and Her-2 status has yielded conflicting results. The interpretation of these exploratory analyses remains problematic due to the methods and regimes (dose and schedule) used and due to the power of the analyses performed.

In conclusion, adjuvant use of taxanes could be considered mostly effective in unselected populations of early breast cancer patients. Ongoing research with innovative trial designs will hopefully identify those patients who are most likely to benefit from adjuvant taxanes.

Conflict of interest statement

None declared.

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