

LUNG INJURY RELATED TO TAXANE TREATMENT IN CANCER PATIENTS

To the Editor:

Chemotherapeutic agents, especially taxanes, are the mainstay of treatment for patients with breast cancer and lung cancer, and also patients with metastatic prostate cancer sometimes undergo taxane chemotherapy¹. Taxanes may also act as radiation enhancers². Paclitaxel interferes with the mitotic spindle function by enhancing the rate and yield of microtubule assembly and preventing microtubule polymerization. This interference results in the arrest of cells at the G2/M phase of the cell cycle³. In the clinical setting, thoracic radiotherapy combined with taxane-based chemotherapy has acceptable early pulmonary toxicity⁴. However, late sequelae such as fibrosis can be observed in long-term survivors.

Moreover, in our institution we observed interstitial pneumonitis in patients who underwent 4 cycles of post-operative taxane chemotherapy followed by radiotherapy. For this reason we prefer to apply tangential breast or chest wall irradiation after 3 cycles of taxane chemotherapy to lessen the cumulative dose of taxanes. Furthermore, high pre-treatment levels of TGF- β 1 may indicate the probability of lung injury due to chemotherapy and/or radiotherapy⁵.

In conclusion, physicians should keep in mind the above-mentioned points when using taxanes with and without radiotherapy in elderly cancer patients⁶.

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