Prospective Randomized Trial of Docetaxel Versus Best Supportive Care in Patients With Non-Small-Cell Lung Cancer Previously Treated With Platinum-Based Chemotherapy

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Introduction
Lung cancer is the leading cause of death from cancer for both men and women in the United States and accounts for approximately 14% of new cancer cases. Cisplatin-based combination chemotherapy has been the standard first-line chemotherapy for patients with advanced non-small-cell lung cancer (NSCLC). Several new chemotherapeutic agents have shown single-agent activity in NSCLC, including the paclitaxel, docetaxel, vinorelbine, Gemcitabine and irinotecan (Pharmacol 37:385-393, 1996). In this study, the researchers reported the effectiveness of docetaxel in patients with advanced NSCLC previously treated with platinum-based chemotherapy.

Materials and Methods
A total of 204 patients with stage IIIb/IV NSCLC were included. Of them, 104 were randomized to treatment with docetaxel 100mg/m2 (49 patients) or 75 mg/m2 (55 patients), and 100 patients to the best supportive care (BSC) arm without any chemotherapy.

Results
- There was no complete response in the treatment arm.
- 6 (5.8%) patients had partial response after treatment.
- The median survival was significantly better with docetaxel at 7 months vs. 4.6 months for best supportive care (p=0.047).
- The survival benefit was more pronounced in patients who received 75 mg/m2 docetaxel.
- 6 patients died secondary to treatment-induced complications within 30 days of receiving chemotherapy.

Discussion
In this study, docetaxel at a dose of 75 mg/m2 every 3 weeks appeared to be beneficial to patients with advanced NSCLC. No clinical trial can provide "prescriptions" of how to treat individual cases. Ultimately, the use of chemotherapy is to be decided by the clinician and patient together. This will depend on many factors including the potential survival benefit, toxicities associated with the treatment, quality of life, and economic cost of treatment.