

## ORIGINAL ARTICLE

## Analysis of the usefulness of anticancer drugs in second- and subsequent-line chemotherapies in 71 patients with non-small cell lung cancer

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### Abstract

**Background:** Although platinum-based protocols are used as first-line chemotherapy for advanced non-small cell lung cancer, they are not sufficiently effective, often resulting in recurrence or unresponsiveness. Currently, docetaxel is widely used as a second-line chemotherapeutic agent, based on two phase III clinical trials. However, anticancer drugs have not been sufficiently compared with one another, and virtually no studies have investigated second- and subsequent-line chemotherapies.

**Patients and methods:** We analyzed all stage IIIb or IV non-small cell lung cancer patients who had received second- and subsequent-line chemotherapies in our hospital or affiliated hospitals between June 2000 and December 2007 because of the ineffectiveness of first-line chemotherapy or recurrence after it.

**Results:** Seventy-one patients underwent second-line chemotherapy with third-generation anticancer drugs or gefitinib. Of these patients, 28 were treated with docetaxel, and 1 achieved a partial response (PR), while 13 showed stable disease (SD). Twenty-two patients were treated with gemcitabine + vinorelbine, and 2 of them achieved PR, and 8 SD. Twelve patients were treated with gefitinib, and 4 and 3 of them achieved PR and SD, respectively. None of the 32 patients undergoing third-line chemotherapy with third-generation anticancer drugs achieved PR, and 5 showed SD, whereas 5 and 10 of the 22 gefitinib-treated patients achieved PR and SD, respectively.

**Conclusion:** The treatment with gemcitabine + vinorelbine was as effective as that with docetaxel. Gefitinib was effective not only as a second-line but also as a third- and subsequent-line chemotherapeutic agent, whereas other drugs were ineffective.

**Key words:** Non-small cell lung cancer, second-line chemotherapy, gefitinib, docetaxel

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