The role of tumor cell chemosensitivity test in second-line or third-line chemotherapeutic treatment in non-small cell lung cancer

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Background: In treatment of advanced non-small cell lung cancer, the effect of chemotherapy is limited and unpredictable. Especially in cases of recurrent or relapsed tumor, the choice of regimen is very restricted. This study was to determine whether the sensitivity test of chemotherapeutic agents is valuable in choosing the drugs of the second-line or third-line treatment in the advanced non-small cell lung cancer.

Methods: In 11 patients, resistant to or relapsed after the first-line or second-line chemotherapy, we got the tumor cells by the nine needle nodes or two bronchoscopic biopsies and did chemosensitivity test by the adenosine triphosphate-based chemotherapy response assay methods. The drugs were cisplatin, carboplatin, paclitaxel, docetaxel, gemcitabine, vinorelbine and irinotecan. We regarded the drug is sensitive in cases the cell death rate was above 30%, and chose two drugs of higher cell death rates as chemotherapeutic agents. After two cycles of chemotherapy, the response was evaluated.

Results: The mean age of the patients was 54.9 year, and one patient was excluded in the final analysis because the secondary tumor was proved as small cell lung cancer. Five patients were for the second-line and another five were for the third-line chemotherapy. Six tumors were sensitive to 3 drugs, 2 tumors were to two, and another two were to one agent. Cisplatin, gemcitabine, vinorelbine and irinotecan were sensitive in 5 cases respectively. Docetaxel was sensitive in 3 cases, paclitaxel and carboplatin were sensitive in 2 cases respectively. Regardless of the previous treatment, cisplatin kept the sensitivity in 4 of 8, gemcitabine in 2 of 3, and docetaxel in 1 of 3 cases. Complete response was found in 2 of 8 evaluable patients, and partial response was in 3, stable in 1, and disease progressed in 2 cases.

Conclusions: In cases of recurrent or resistant non-small cell lung cancer, chemosensitivity test would provide another options in choosing the chemotherapeutic agents.

BCL-2, BCL-xL, Survivin and P53 protein expression and response to the chemotherapy with cisplatine and etoposide in non-small cell lung cancer

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Background: The identification of molecular markers useful for chemotherapy response assessment may help in treatment optimization of selected groups of patients that will benefit from the therapy and help to improve the therapy results. Markers that would be useful for predictive factors assessment in NSCLC are under investigation.

Results: Cisplatin, carboplatin, paclitaxel, docetaxel, gemcitabine, vinorelbine and irinotecan were sensitive in 5 cases respectively. Docetaxel was sensitive in 3 cases, paclitaxel and carboplatin were sensitive in 2 cases respectively. Regardless of the previous treatment, cisplatin kept the sensitivity in 4 of 8, gemcitabine in 2 of 3, and docetaxel in 1 of 3 cases. Complete response was found in 2 of 8 evaluable patients, and partial response was in 3, stable in 1, and disease progressed in 2 cases.

Conclusions: In cases of recurrent or resistant non-small cell lung cancer, chemosensitivity test would provide another options in choosing the chemotherapeutic agents.

Impact of gender on median overall survival (MOS) in patients with advanced non-small cell lung cancer (NSCLC) treated with platinum-based chemotherapy- Single center experience

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Introduction: There is a debate on the impact of sex on survival of patients with advanced NSCLC. We retrospectively evaluated whether or not sex affects median overall survival (MOS) in patients with advanced NSCLC treated with 2nd or 3rd generation platinum-based regimens.

Results: 181 men and 49 women were included in this analysis. There was no statistically significant difference in stage distribution (i.e. IIa/IIb/IV) treated with 2nd or 3rd generation platinum-based chemotherapy was retrospectively analyzed for the impact of gender differences on MOS. Confounding factors (i.e. median age, stage and pathology) were also evaluated in both sexes.

Conclusions: 181 men and 49 women were included in this analysis. There was no statistically significant difference in stage distribution (i.e. IIa/IIb/IV) treated with 2nd or 3rd generation platinum-based chemotherapy was retrospectively analyzed for the impact of gender differences on MOS. Confounding factors (i.e. median age, stage and pathology) were also evaluated in both sexes.