Results: Taxotere could inhibit the proliferation of A549 cell by a time and dose-dependent manner and the combination with Celecoxib (12.5μmol/l, 25μmol/l) could improve the inhibition. After 48h of incubation with Taxotere, the highest inhibitory rate of the cell is 65% and the lowest inhibitory rate is 10%. High-dose celecoxib (>50μmol/l) can suppress COX-2 gene expression, while positive response was found in low-dose celecoxib(12.5μmol/l,25μmol/l) and the combination. Celecoxib can increase the percentage of cell in G0/G1 and decrease that in S and G2/M. The apoptosis rate of cell increased after Celecoxib combined with Taxotere.

Conclusion: Taxotere could inhibit effectively the growth of A549 cell lines in vitro and the combination with Celecoxib could improve the inhibition through induceing apopotosis and influencing the distribution of cell cycle, but had no significant influence in the expression of COX-2 protein.

P2-245 NSCLC: Cytotoxic Chemotherapy Posters, Tue, Sept 4

A phase II trial of pemetrexed in non-small cell lung cancer patients failing previous platinum-based chemotherapy and with/without tyrosine-kinase treatment

Chen, Yuh-Min[1] Perng, Reury-Perng[1] Tsai, Chun-Ming[1] Whang-Peng, Jacqueline[2]

[1] Chest Department, Taipei Veterans General Hospital, Taipei, Taiwan
[2] Institute of Cancer Research, National Health of Institutes, Taipei, Taiwan

Background: Pemetrexed is an effective salvage agent in NSCLC patients failing previous chemotherapy. Our aim was to evaluate the efficacy of pemetrexed in Chinese NSCLC patients who had failed previous platinum-based chemotherapy and had been salvaged with tyrosine-kinase inhibitor (TKI) treatment or not.

Methods: Treatment consisted of pemetrexed 500 mg/m^2 intravenous infusion on day 1 of every 3 weeks. Standard premedications, including vitamin B12, folic acid, and dexamethasone were given.

Results: Between June 2005 and November 2006, 44 patients (pts) were enrolled and completed the study. All had been treated with platinum-based chemotherapy. Thirty patients had been treated with TKI after they failed platinum-based chemotherapy. The present treatment was second-line treatment in 10 pts, and third-line or higher in 34 pts. Mean age was 62. Median cycles received was 4, and objective response rates was 18.2% (8 pts had PR). Treatment-related toxicities were mild and few. Grade 3 or 4 haematological toxicities included neutropenia in 18.2%, thrombocytopenia in 6.8%, and anemia in 4.5 pts. Non-haematological toxicities were all less than grade 3. Median time to disease progression was 4.4 months and median survival was 9.1 months. Those received present treatment as second line treatment had a better response than as third line or later treatment (40% vs. 11.8%, p=0.043). Previous treatment with TKI or not did not affect patient's response to present treatment (p=0.782)

Conclusions: This study demonstrated that pemetrexed salvage chemotherapy in NSCLC patients who have failed previous platinum-based chemotherapy produces a relatively lower toxicity profile, and a better compliance and response rate than conventional salvage chemotherapy. Use of pemetrexed as second line agent will have better response rate than as third line or later treatment.

P2-246 NSCLC: Cytotoxic Chemotherapy Posters, Tue, Sept 4

Phase II randomized study of vinorelbine alone or plus cisplatin against Chemo-naïve Inoperable Non-small Cell Lung Cancer in the Elderly

Chen, Yuh-Min[1] Shih, Jen-Fu[1] Perng, Reury-Perng[1] Tsai, Chun-Ming[1] Whang-Peng, Jacqueline[2]

[1] Chest Department, Taipei Veterans General Hospital, Taipei, Taiwan
[2] Institute of Cancer Research, National Health Research Institutes, Taipei, Taiwan

Background: Our aim here was to determine whether or not adding cisplatin into vinorelbine treatment is an appropriate regimen for chemo-naïve NSCLC in patients aged 70 or older.

Methods: After stratification by performance status, patients were randomized into vinorelbine (V) or vinorelbine plus cisplatin (VP) treatment arms. Treatment consisted of vinorelbine 25 mg/m^2 intravenous infusion on days 1 and 8 of every 3 weeks (V arm), or vinorelbine 22.5 mg/m^2 intravenous infusion on days 1 and 8, and cisplatin 60 mg/m^2 intravenous infusion on day 1 of every 3 weeks (VP arm). From May 2005 to December 2006, 68 patients were enrolled. Sixty-three patients went off-study before end of February 2007. Present analysis was based on these 63 patients.

Results: There were 29 patients received V treatment and 34 patients received VP treatment. There was no statistical significant difference in clinical characteristics. In all, 104 cycles of V (median, 4 cycles per patient) and 137 cycles of VP (median, 4 cycles per patient) were given. Objective response rates were 17.2% in V and 32.4% in VP (p=0.175). Control rates were 51.7% in V and 82.4% in VP (p=0.009). Myelosuppression was more common and severe in VP arm. Any grade of anemia and neutropenia were significantly higher in VP arm (p=0.002 and 0.018, respectively). Two patients in VP arm suffered from febrile neutropenia and one patient died in spite of G-CSF and antibiotic treatment. There was only one patient in V arm who had uneventful febrile neutropenia. Non-haematological toxicities was mild and all less than grade 3, except one patient in VP arm who suffered from grade 3 renal function impairment and one patient in V arm who had grade 3 phlebitis. Fatigue sensation was more common and severe in VP arm (p=0.031). Median time to disease progression was 2.7 months in V arm and 5.2 months in VP arm (p=0.0125). One-year survival rate was 49.8% in V arm and 45.4% in VP arm.

Conclusions: Adding cisplatin into vinorelbine treatment is feasible in elderly patients, and has better disease control rate and longer median time to disease progression. However, vinorelbine plus cisplatin treatment was more toxic than vinorelbine treatment alone in elderly patients.

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The effects of NSCLC neoadjuvant therapy on the serum and tumor levels of growth factors, apoptosis and invasiveness markers

Chorostowska-Wynimko, Joanna; Zaleska, J.; Chabowski, M.; Rozy, A.; Zych, J.; Rudzinski, P.; Langfort, R.; Orlowski, T.; Roszkowski, K.

National Institute of Tuberculosis and Lung Diseases, Warsaw, Poland

Our aim was to evaluate the effect of neoadjuvant therapy and subsequent surgical treatment of non-small cell lung cancer (NSCLC) on serum markers of tumor growth and expansion: VEGF, TGF-β, bFGF, TIMP-1 and apoptosis marker CD95L assessed by Elisa. 24 NSCLC patients were evaluated: 12 in stage IIIA. 9-IIB,1-IIA, 1-IB, 1-IA.