40 mg/m², d1; d8, or paclitaxel 175mg/m², d1) plus cisplatin (CDDP, 25mg/m², d2-4). Patients were divided into chemoresponsive (CR+PR) and chemoresistant (SD+PD) groups according to objective response status which was evaluated by RECIST system. Tumor cells from specimens of bronchoscopic, surgical biopsy and pleural effusion cell collection had been cultured and treated with DC in vitro. The m-P53 of culture supernatant was measured by ABC-ELISA kit before DC treatment. The telomerase activity was determined by the telomeric repeat amplification protocol (TRAP) based PCR-ELISA kit and apoptosis was determined by TdT-mediated d-UTP-X nick-end labeling (TUNEL) assay. Data represent as both actual detected and positive value.

The senescence of tumor cells defined as that, apoptosis rate increased more than 50% to control, and telomerase activity decreased less than 50% to control.

Results: There was no significant deference between clinical treatment response and sex, pathological type, specimen origin, or m-P53 status in cultured cell supernatant. Telomerase activity and apoptosis rate was positive in 61.1% (41/67) and 25.4% (17/67) of all samples respectively. A significant difference of senescence of tumor cells treated by DC, was existed between chemoresponsive and chemoresistant patients groups (P<0.05). Multinomial logistic regression analyses shown that telomerase activity decreased less than 50% in vitro may be an indicator of clinical response for taxanes plus cisplatin chemotherapy. Odds ratio is 4.226, p<0.05.

Conclusion: For NSCLC, chemotherapy induced lung cancer tumor cells senescence in vitro may be a promising predicador for clinical response. The relationship between clinical response and detectable m-P53 in vitro still is obscure.

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Outcome of advanced nonsmall cell lung cancer patients receiving gemcitabine and weekly paclitaxel as first-line treatment
Lin, Zhong-Zhe 1 Hsu, Chiun 2 Chang, Yeun-Chung 1 Yu, Chong-Jen 1 Hsu, Chih-Hung 1 Lin, Chia-Chi 1 Cheng, Ann-Lii 1 Yang, Pan-Chyr 1 Yang, Chih-Hsin 3

1 Department of Oncology, National Taiwan University Hospital, Taipei, Taiwan 2 Department of Medical Imaging, National Taiwan University Hospital, Taipei, Taiwan 3 Department of Internal Medicine, National Taiwan University Hospital, Taipei, Taiwan 4 Department of Oncology and Internal Medicine, National Taiwan University Hospital, Taipei, Taiwan 5 Department of Oncology, National Taiwan University Hospital, Taipepi, Taiwan

Background: Gemcitabine and paclitaxel were both active for advanced nonsmall cell lung cancer (NSCLC) patients. Combinations of gemcitabine and paclitaxel with various doses and schedules were shown to be effective treatment for these patients. The survival outcome of these patients are not clear.

Methods: Patients with advanced NSCLC in a phase II study of weekly paclitaxel and gemcitabine as first-line treatment were followed until their death. Second or further lines of treatment were recorded.

Results: Thirty-seven patients were accrued receiving a total of 188 cycles of gemcitabine and paclitaxel treatment. Toxicities were mild. Twenty-three patients had partial response (overall response rate, 62%; 95% confidence interval, 46-78%). Median time to treatment failure was 6.0 months. Twenty-seven (73%) patients received second-line anticancer drug treatment. Twenty-three (62%) patients were able to receive platinum doublet. Median survival after second-line treat-

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Gemcitabine and Oxaliplatin as second and third line therapy of advanced and metastatic non-small cell lung cancer (NSCLC): evidence of clinical activity and improvement in quality of life.

Lopes, Gilberto 1 Alencar, Alvaro 2 Blaya, Marcelo 2 Raez, Luis 2 Farfan, Nancy 2 Walker, Gail 3 Flores, Aurea 2 Macyntire, Jessica 2 Rocha Lima, Caio 2

1 Johns Hopkins Singapore International Medical Center, Johns Hopkins University, Singapore, 2 Sylvester Cancer Center, University of Miami, Miami, FL, USA

Background: Gemcitabine is active as second line therapy in NSCLC. Oxaliplatin may be non-cross resistant with other platinum agents used as first-line therapy in NSCLC. The combination of gemcitabine and oxaliplatin (GEMOX) is synergistic in pre-clinical models and clinical trials have shown that it is safe and efficacious in several tumor types, including NSCLC.

Methods: A phase II trial was designed to assess the efficacy and tolerability of gemcitabine 1,000 mg/m² over 100 min in combination with oxaliplatin 100 mg/m² over 2 hours both given on days 1 and 15 of a 28-day cycle. Patients with NSCLC were eligible if they had progressed after first line treatment. Primary endpoint was objective response rate assessed by RECIST. Planned sample size is 30 patients over a period of 2 ½ years. Functional Assessment of Cancer Therapy-Lung (FACT-L) v.4 questionnaire was used to assess the quality of life of patients on therapy.

Results: Twenty-two patients have been enrolled. 13 were men (59%) and 9 were women (41%). Fifteen patients were Hispanic (68%), four were Caucasian (18%), and 3 were African-American (13%). Median age was 55 years. Histologic subtypes were as follows: adenocarcinoma, 12; NSCLC not otherwise specified, 7; squamous cell carcinoma, 3. Nine patients had an ECOG performance status (PS) of 0 (41%) and 13 had a PS of 1 (59%). Two patients were never smokers. A total of 56 cycles have been administered (median 2, range 1 to 6). GEMOX was given as second-line therapy to 18 patients (81%), and as third-line to 4 patients (18%). Twenty patients are available for assessment of response. Two patients had a confirmed partial response (10%) and another eight had stable disease (40%). Two patients died on study from disease progression leading to respiratory and multi-organ failure. The following Grade 3 and 4 adverse events were seen in 2 patients each: fatigue, dyspnea, anemia, and multi-organ failure. Preliminary results of FACT-L analysis in 19 pts show improvement in Lung Cancer Subscale (LCS) score in 25% of the patients after 2 cycles of therapy.

Conclusions: Gemcitabine in combination with oxaliplatin is active and well tolerated as second and third line treatment for advanced NSCLC. Improvement of LCS score after 2 cycles suggests a clinical benefit that is beyond the observed response rate of 10%.