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135–150 mg/m² every 2 weeks (q2w) without vitamin supplementation (Krug, Clin Cancer Res 2003;9:2072–8). This phase 1 study evaluated the safety of higher pralatrexate doses with vitamin supplementation to minimize toxicities in pts with advanced NSCLC.

**Materials and Methods:** Pts age  $\geqslant$ 18y with stage IIIB or IV NSCLC received pralatrexate q2w in 4-wk cycles with folate and vitamin B<sub>12</sub>. Outcomes in this report include adverse events, pharmacokinetics (PK), and investigator reports of treatment response.

**Results:** 39 pts were treated (23 female, 34 White, median age 62y [range, 40–77y]). The number of prior chemotherapy treatments was 1–2 in 20 pts and 3+ in 19 pts. Pts received a median of 2 pralatrexate cycles (range, 1–12). Rates of treatment-related grade 3–4 adverse events at any time were (doses  $\leqslant$  190 mg/m², > 190 mg/m²) stomatitis/mucosal inflammation (22%, 33%), fatigue (0%, 13%), and hand-foot syndrome, headache, increased ALT, back pain, dehydration, thrombocytopenia, and neutropenia (0%, 3% each). Treatment-related serious adverse event rates were 0% and 23% for doses  $\leqslant$  190 and > 190 mg/m², respectively. The table summarizes dose-limiting toxicities (DLTs) during cycle 1 (cohorts in chronological order).

Dose, mg/m <sup>2</sup>	Infusion duration, min	Ν	No. of Pts with DLT
150	3-5	1	
190	3-5	1	
230	3-5	1	
270	3-5	6	1 Mucositis (Gr3)
325	3-5	3	2 Mucositis (Gr3)
270	3-5	10	2 Mucositis (Gr3)
			1 Mucositis+fatigue (Gr3+3)
			1 Mucositis+fatigue+headache (Gr3+3+3)
			1 Hand-foot syndrome (Gr3)
			1 Elevated ALT+back pain (Gr3+3)
230	3-5	5	3 Mucositis (Gr2)
			1 Fatigue+hemorrhagic mucositis (Gr3+4)
230	60	5	1 Mucositis (Gr3)
			1 Mucositis+neutropenia (Gr2+3)
			1 Dyspnea (Gr3)
			1 Syncope+somnolence (Gr3+3)
190	3-5	2	2 Mucositis (Gr3)
190	60	5	1 Fatigue+dyspnea+mucositis (Gr3+3+2)

PK was dose-proportional and was not altered significantly by extending the infusion to 60 min. ORR by RECIST was 8% (3/39; 95% CI: 0.7%-16%), with 2 CR (22+ and 16+ months) and 1 PR (10 months). Disease control rate (CR, PR, or SD and TTP > 2 months) was 49% (95% CI: 33%-64%). Conclusions: Pralatrexate in combination with vitamin  $\rm B_{12}$  and folate was safe and active in pts with previously treated NSCLC, with durable CRs in this phase 1 trial. Mucositis remained the DLT. Pralatrexate 190 mg/m² with vitamin supplementation is being compared to erlotinib treatment in a randomized phase 2b trial (NCT00606502) in pts with previously treated NSCLC.

9087 POSTER

The feasibility of weekly paclitaxel in combination with carboplatin for advanced non-small cell lung cancer with idiopathic interstitial pneumonias: a pilot study

A. Kohno<sup>1</sup>, Y. Minegishi<sup>1</sup>, J. Sudoh<sup>1</sup>, H. Kuribayashi<sup>1</sup>, T. Shimokawa<sup>1</sup>, H. Mizutani<sup>1</sup>, M. Seike<sup>1</sup>, A. Yoshimura<sup>1</sup>, A. Gemma<sup>1</sup>. <sup>1</sup>Nippon Medical School, Department of Internal Medicine, Division of Pulmonary Medicine Infectious Diseases and Oncology, Tokyo, Japan

Background: Idiopathic interstitial pneumonias (IIP) appear to be associated with lung carcinogenesis. In lung cancer combined with IIP, acute exacerbation of interstitial pneumonias (AE) frequently occurs after the anti-cancer treatments. The AE was fatal and poor prognostic factor of these patients. However, no current consensus and evidence on whether aggressive anti-cancer treatments, such a chemotherapy, for advanced stage non-small cell lung cancer (NSCLC) with IIP was regarded as a serious clinical problem. This study was conducted to elucidate cumulative incidence of AE in NSCLC with IIP who had received standard chemotherapy.

Patients and Method: Advanced NSCLC with IIP who had never received chemotherapy or radiotherapy from 2004 to 2008 at Nippon Medical School Main Hospital were enrolled. Patients received paclitaxel (PTX) 100 mg/m² weekly for 3 of 4 weeks and carboplatin (CBDCA) area under the curve (AUC) = 5 on day 1 of each 4-week cycle. The safety and efficacy of PTX plus CBDCA was prospectively investigated.

Results: Eighteen patients [male/female, 14/4; median age 71 years (38–81); performance status 0/1, 7/11] were enrolled. The 6 of 18 patients were diagnosed idiopathic pulmonary fibrosis (IPF). The median number

of cycles administered per patients was 4 (range 1–7). The median progressive free survival was 27 weeks. The overall response rate was 61%. The median survival was 46 weeks, and 1-year survival rate was 22%. During the follow-up period, AE was observed in 5 of 18 patients (28%). Treatment-related AE occurred in only one patient (6%) with histological confirmed usual interstitial pneumonia (UIP). Other main adverse events were; 33% of Grade 3 or 4 neutropenia, 22% of Grade 2 neuropathy. Conclusion: The safety and anti-tumor response of PTX combined with

Conclusion: The safety and anti-tumor response of PTX combined with CBDCA for advanced NSCLC with IIP were well acceptable. These results suggest that the chemotherapy of PTX plus CBDCA is candidate of treatment for NSCLC with IIP. Further large-scale prospective study for NSCLS with IIP should be performed.

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Phase III study of Lipoplatin plus Gemcitabine versus Cisplatin plus Gemcitabine in advanced NSCLC; interim analysis

C. Kosmas<sup>1</sup>, J. Angel<sup>2</sup>, A. Athanasiou<sup>3</sup>, A. Rapti<sup>4</sup>, C. Karanikas<sup>5</sup>, S. Lambaki<sup>6</sup>, N. Politis<sup>7</sup>, N. Mylonakis<sup>1</sup>. <sup>1</sup>"Metaxa" Cancer Hospital, Medical Oncology, Athens, Greece; <sup>2</sup>Theageneio Anticancer Hospital, Pulmonary Medicine Department, Thessaloniki, Greece; <sup>3</sup>"Metaxa" Cancer Hospital, 1st Department of Medical Oncology, Piraeus, Greece; <sup>4</sup>"Sotiria" Thoracic Hospital, 8th Pulmonary Clinic, Athens, Greece; <sup>5</sup>Evgenidion Hospital Kapodistrian University of Athens, Radiology Research Unit, Athens, Greece; <sup>6</sup>Aristotle University of Thessaloniki School of Medicine Papageorgiou Hospital, Department of Medical Oncology, Thessaloniki, Greece; <sup>7</sup>Agios Savvas Anticancer Hospital, Pulmonary Medicine Clinic, Athens, Greece

**Background:** Lipoplatin is a liposomal formulation of cisplatin, designed to reduce its adverse reactions without reducing efficacy. This is a report of an ongoing randomized, multicenter, non-inferiority phase III trial (LipoGem-PIII-1L, 0-218b/6<sup>th</sup>/23-3-05) comparing OS/response, safety and QOL Lipoplatin versus cisplatin, both combined with gemcitabine against advanced stage NSCLC.

**Materials and Methods:** Interim analysis of 101 patients' safety and response data, emphasizing the correlation of results with the histological subtype of NSCLC. Sixty patients were assigned to Lipoplatin arm (LipoGem) and 41 patients were assigned to the cisplatin arm (CisGem). Patients received Lipoplatin 120 mg/m<sup>2</sup> D1, 8, 15 or cisplatin 100 mg/m<sup>2</sup> D1, combined with gemcitabine 1,000 mg/m<sup>2</sup> D1, 8, in 3-week cycles, with disease evaluation after 3 and 6 cycles (LipoGem and CisGem arms, respectively).

Results: Response: Evaluable patients were 52 in LipoGem arm and 32 in the CisGem arm. The study meets the noninferiority goals with a slight superiority of LipoGem over CisGem across all histological subtypes combined. However, among patients diagnosed with adenocarcinoma PR, SD and PD were 48%, 38% and 14% for LipoGem and 32%, 36% and 32% for CisGem arms, respectively. Toxicity: Nephrotoxicity grade III occurred in 8.5% in LipoGem arm versus 12.5% in CisGem arm, while respective values for nausea and vomiting grade III were 1.7% versus 10%, neurotoxicity grade III were 0 versus 2.5% and asthenia grade III were 3.4% versus 17.5%. The remaining of safety parameters were comparable, although neutropenia grade III favored the LipoGem arm.

Conclusions: Lipoplatin appears more effective in advanced NSCLC when combined with gemcitabine, especially against adenocarcinomas, than cisplatin-gemcitabine, which appears to be more effective against squamous cell carcinomas. Lipoplatin has a more favorable safety profile than cisplatin, particularly regarding nephrotoxicity, neurotoxicity and asthenia.

9089 POSTER

Optimal duration of 1st- and 2nd-line chemotherapy (CT) for advanced non-small cell lung cancer (NSCLC)

F. Grossi<sup>1</sup>, O. Belvedere<sup>2</sup>, C. Defferrari<sup>1</sup>, C. Massoni<sup>1</sup>, A. Follador<sup>3</sup>, E. Rijavec<sup>3</sup>, T. Ceschia<sup>4</sup>, P. Pronzato<sup>1</sup>, G. Fasola<sup>3</sup>, M. Aita<sup>3</sup>. <sup>1</sup>National Institute for Cancer Research, Medical Oncology A, Genova, Italy; <sup>2</sup>Leeds Institute of Molecular Medicine, Section of Experimental Therapeutics, Leeds, United Kingdom; <sup>3</sup>University Hospital of Udine, Department of Oncology, Udine, Italy; <sup>4</sup>University Hospital of Udine, Department of Radiation Oncology, Udine, Italy

**Background:** Six vs 3-4 cycles of 1st-line CT do not offer an overall survival (OS) benefit to patients (pts) with advanced NSCLC and are associated with increased toxicity and potential for worse quality of life. No randomized, prospective data exist on the optimal duration of 2nd-line CT. This retrospective study aimed to: i) confirm the lack of impact of 1st-line treatment duration on efficacy outcomes; ii) evaluate the impact of treatment duration in the 2nd-line setting.