Oral Session

O2–103 PHASE I/II STUDY OF AMRUBICIN COMBINED WITH NEDAPLATIN (CDGP) IN UNTREATED NON-SMALL-CELL LUNG CANCER

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Background: We conducted a phase I/II study of combination chemotherapy with nedaplatin (CDGP) and amrubicin (Amr) for patients with untreated, advanced non-small cell lung cancer (NSCLC).

Methods: The eligibility criteria were as follows: histologically or cytologically confirmed stage IIIB or IV NSCLC; measurable or evaluable disease; Eastern Cooperative Oncology Group (ECOG) performance status (PS) 0 to 2. CDGP was given on day 1 and Amr on days 1, 2 and 3. The treatment was repeated every 3 weeks. In phase I trial, we fixed the dose of CDGP as 100 mg/m² and escalated the Amr dose from a starting dose of 25 mg/m² by 5mg/m² increments until the maximum tolerated dose (MTD). The MTD was defined as the dose level at which at least two of three or two of six patients experienced a dose-limiting toxicity (DLT). In phase II trial, the primary endpoint was overall response rate (ORR). Assuming an ORR of 25% for standard therapy, a target response rate of 50% was established. Alpha = 0.05, beta = 0.10, and the estimated required sample size was 33.

Results: Forty-one patients were enrolled in the study. In the phase I study, two DLTs occurred in six patients at level 2, including cerebral infarction and grade 4 thrombocytopenia. Therefore dose level 1 (CDGP 100 mg/m², Amr 25 mg/m²) was recommended. In the phase II study, a total of 35 patients, including 6 patients from the phase I study, were enrolled and a total of 129 cycles treatment were administered. Grade 3 or 4 neutropenia, grade 3 anemia and grade 3 or 4 thrombocytopenia occurred in 62.9%, 11.4% and 11.4% of cycles, respectively. Febrile neutropenia occurred in 5cycles (3.9%) but there were no severe infections. Of the 35 patients, 17 achieved a partial response (PR) and the overall response rate was 48.6%.

Conclusion: The combination of CDGP and amrubicin was highly effective and well tolerated in patients with advanced NSCLC.