Two-weekly gemcitabine fixed dose rate and oxaliplatin combination chemotherapy for advanced non-small-cell lung cancer

Martin Früh, Silke Gillessen Sommer, Thomas Cerny, Ruth Demmer-Steingruber & G D’Addario

PURPOSE: Combination chemotherapy with gemcitabine and oxaliplatin (GEMOX) is active in patients with advanced non-small-cell lung cancer (NSCLC). Oxaliplatin has a favourable toxicity profile compared to cisplatin. Gemcitabine’s cellular uptake mechanism is saturable and fixed dose rate (FDR) infusion results in higher intracellular concentrations. We evaluated the feasibility, response rate and toxicity of bi-weekly GEMOX. PATIENTS AND METHODS: Eligible patients with inoperable stage IIIB and IV NSCLC were treated with gemcitabine 1200mg/m² FDR and oxaliplatin 85mg/m², both given on d1 and d15 every 4 weeks for a maximum of six cycles. Tumour response was assessed every 8 weeks using RECIST criteria. RESULTS: Forty eligible patients initiated treatment between December 2002 and December 2004. There were nine partial responses (23%). An additional 23 patients (58%) had stable disease, resulting in a disease stabilization rate of 81%. The time to progression was 7.3 months (95% CI, 6.0-8.2 months). Median survival time was 10.4 months (95% CI, 8.7-13.2 months). The 1 and 2-year survival rates were 42% and 12%, respectively. The time to treatment response was 2.2 months (95% CI, 1.8-3.5 months) with a median response duration of 4 months. The most common grade 3 or higher toxicities were leucopenia (20%), asthenia (15%) and neurotoxicity (10%). There were no treatment-related deaths. Patients with performance status (PS) of 0 had a significantly longer survival than patients with higher PS (12.9 months versus 9.4 months, HR 0.45, P=0.03). CONCLUSION: Bi-weekly GEMOX is active and well tolerated for chemotherapy-naïve patients with advanced NSCLC. This regimen merits consideration for further investigation.