Weekly docetaxel-cisplatin as first-line treatment for advanced non-small cell lung cancer (NSCLC): results of a multicenter phase II trial

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Background: The combination of docetaxel and cisplatin is an effective first-line chemotherapy for advanced NSCLC. However, the recommended three-weekly schedule is frequently associated with neutropenia and neutropenic infections. Moreover, the relatively long hydration required with cisplatin given every three weeks makes outpatient treatment more difficult. We assessed the efficacy and tolerability of weekly docetaxel-cisplatin, which may be better tolerated than the standard regimen.

Methods: Eligible were pts ≥ 70 years with advanced NSCLC. They received carboplatin (AUC 5 day 1)-gemcitabine (1250 mg/m² days 1 and 8) or carboplatin (AUC 5 day 1)-paclitaxel (175 mg/m² day 1), q 3 weeks, for a maximum of 4 cycles. Darbepoetin was started if Hb < 11 g/dL. Primary endpoint was the change in global QoL from baseline compared with week 18, using the EORTC QLQ-C30. Among the secondary endpoints were toxicity, response rate and survival. In addition, the value of a comprehensive geriatric assessment (CGA) was used.

Results: 182 pts were randomized. At the time of this analysis information was available on 168 pts. Mean age was 75 yrs (range 70-85), PS 0 in 30%, 1 in 57% and 2 in 13%. 64% of pts completed all 4 cycles, 10% stopped treatment prematurely due to toxicity, 13% due to PD. Toxicity related dose-reductions occurred in 28 and 8% of pts and dose-delays in 15 and 3% of pts in the CG and CP arm, respectively. Overall, grade III/IV toxicity occurred in 65% of pts (75% in CG arm, 56% in CP arm), toxicity related SAEs in 17% (20% in CG arm, 15% in CP arm), and 36% experienced ≥ grade 2 neurological toxicity (30% CG arm, 43% CP arm). Response rates were 28% in the CG arm vs 20% in the CP arm. Median survival and progression-free survival were 7.7 and 4.7 months for the CG arm and 6.6 and 4.4 months for the CP arm, respectively. 56% of pts in the CG arm and 49% in the CP arm completed both the Qol questionnaires at baseline and after 18 weeks. Mean global QoL score at baseline did not differ between both arms (66% for GC and CP). After 18 weeks the mean QoL score for the CG arm had decreased by 2% and for the CP arm by 8% (NS). Furthermore, changes in QoL scores over the period of 18 weeks did not differ significantly between both treatment arms. For experiencing grade III/IV toxicity related SAEs, neurological toxicities and for finishing all cycles, the use of a CGA was of predictive value.

Conclusions: In elderly patients with advanced NSCLC differences in treatment-related toxicity from gemcitabine and paclitaxel administered with carboplatin have no differential influence on QoL. Response and survival rates are similar for both groups.