Weekly docetaxel and cisplatin with concomitant radiotherapy in-addition to consolidation chemotherapy in locally advanced non small cell lung cancer

Hanan Gamal-eldeen Mostafa, Mohamed Alaa-eldeen Hassan Mohamed

Abstract:

Purpose: To evaluate outcomes and prognostic factors in locally advanced non-small cell lung cancer (NSCLC) patients treated with concomitant chemoradiotherapy followed by consolidation with docetaxel and cisplatin in a prospective phase II study. Patients and methods: From January 2012 to March 2014, patients with stage III unresectable NSCLC were treated with thoracic radiotherapy 60 Gy in 30 fractions and weekly 20 mg/m² docetaxel and 20 mg/m² cisplatin concomitantly. Consolidation chemotherapy using docetaxel 75 mg/m² and cisplatin 60 mg/m² every 3 weeks for 3 cycles followed local therapy in all patients. Results: A total of 46 patients were included in this study. Four (8.7%) patients achieved complete response and 27 (58.7%) patients showed partial response. The median follow-up was 14 months (range: 5-48 months) the median overall survival (OS) and progression-free survival were 17 months and 7 months respectively. Esophagitis in 4 (8.7%) patients, neutropenia in 3 (6.5%) patients and pneumonitis in 4 (8.7%) patients developed as grade III-IV toxicity due to concomitant chemoradiotherapy (CRT). Tumor stage (p=0.003) and clinical tumor response (p=0.001) were the significant prognostic factors for OS. Conclusion: Concurrent CRT using weekly docetaxel and cisplatin followed by consolidation chemotherapy is effective and well tolerated in patients with stage III NSCLC. Clinical tumor response was significantly associated with OS, so further investigations regarding the factors associated with improving tumor response would be required.

Keywords:

Key words: Non-small cell lung cancer, concurrent chemoradiotherapy, cisplatin, docetaxel, prognostic factors

Published In:

Cancer Biology, 6, 26-34