Tumori, 93: 133-137, 2007

INDUCTION THERAPY WITH PACLITAXEL AND CARBOPLATIN FOLLOWED BY HYPERFRACTIONATED RADIOTHERAPY PLUS WEEKLY CONCURRENT CHEMOTHERAPY AND SUBSEQUENT CONSOLIDATION THERAPY IN UNRESECTABLE LOCALLY ADVANCED NON-SMALL-CELL LUNG CANCER

Enrico Cortesi[1], Luca Moscetti[2], Fabrizio Nelli[2], Filippo De Marinis[3], Ugo De Paula[4], Caterina Bangrazi[5], Maria Rita Migliorino[3], and Vittorio Donato[6]

[1]Medical Oncology B, Policlinico Umberto I Hospital, "La Sapienza" University, Rome; [2]Department of Medical Oncology, Belcolle Hospital, Viterbo; [3]Fifth Pulmonary Oncology Unit, Forlanini Hospital, Rome; [4]Radiation Therapy Unit, San Pietro Fatebenefratelli Hospital, Rome; [5]Radiation Therapy, Policlinico Umberto I Hospital, "La Sapienza" University, Rome; [6]Radiation Therapy, San Camillo Hospital, Rome, Italy

Aims and background: **The purpose of this pilot study was to determine the safety and feasibility of a complete integrated approach, including induction chemotherapy with carboplatin/paclitaxel followed by accelerated hyperfractionated radiotherapy with concurrent chemotherapy, and then by consolidation chemotherapy for locally advanced stage III non-small cell lung carcinoma.**

Methods: **Systemic doses of carboplatin AUC 6 and paclitaxel (200 mg/m^2), 3 weeks out of 4, were planned as induction and consolidation chemotherapy. Weekly carboplatin AUC of 2 plus paclitaxel (50 mg/m^2) were given during thoracic radiotherapy.**

Results: **Eighteen patients were enrolled: 10 were evaluated at the end of chemoradiation and 8 received consolidation chemotherapy. On an intent-to-treat basis, 55% of patients achieved a response after induction therapy, whereas chemoradiation and consolidation therapy increased the response rate by 33% and 16%, respectively. No patient experienced grade >3 acute hematologic toxicity during systemic-dose chemotherapy. With the exception of one episode of a severe cardiac adverse event, non-hematologic toxicity was similarly tolerable. Severe acute adverse events observed during concurrent chemoradiation were mainly represented by esophagitis, resulting in interruption of the radiotherapy in 25% of patients. More notably, only one patient experienced serious non-hematologic late toxicity.**

Conclusions: **Although the present approach seemed feasible, our data did not support any possible advantage in favor of this three-phase integrated treatment, and therefore the design will not be investigated in a subsequent phase II study.**

Key words: carboplatin, concurrent chemoradiotherapy, consolidation chemotherapy, hyperfractionated radiotherapy, induction chemotherapy, non-small-cell lung cancer, paclitaxel, stage III.

Correspondence to: Luca Moscetti MD, Department of Medical Oncology, Belcolle Hospital, Strada Sammartinese snc, 01100 Viterbo, Italy. Tel +39-761-339040; fax +39-761-339061; e-mail l.moscetti@asl.vt.it

Received September 6, 2006; accepted December 4, 2006.