Journal of Thoracic Oncology • Volume 2, Number 8, Supplement 4, August 2007

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NSCLC: Combined Modality Therapy Posters, Tue, Sept 4

Induction docetaxel and cisplatin followed of bi-weekly docetaxel with concurrent thoracic radiotherapy for stage III non-small cell lung cancer (NSCLC). A phase II study conducted by the Galician Lung Cancer Group (GLCG).

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Background: The most satisfactory treatment for patients with locally advanced NSCLC is combination chemotherapy-radiotherapy (CT-RT). The optimal treatment modalities remain to be determined.

Methods: 60 patients (pts) with inoperable locally advanced NSCLC, stage IIIAN2/IIIB (no pleural T4), were included in a phase II study with induction chemotherapy consisting of three cycles of Docetaxel 75 mg/m² on D1 and Cisplatin 40 mg/m² D1-2 every 3 weeks and, if no surgery, then received concurrent CT-RT with Docetaxel 30 mg/m² every 2 weeks for four courses, during thoracic conformal radiotherapy (60-66 Gys, 180 cGy/day). The primary objective: overall survival; secondary: progression free survival, response rate (RR) and toxicity. Median follow-up: 9.1 mo.

Results: The pts characteristics were: mean age 62.9 yrs (43-74); male/ female: 56/4; ECOG 0/1 in 17/43 pts; stage IIIAN2: 17 pts (28.3%) and stage IIIB 43 pts (71.7%). 56 pts were evaluables for response and 58 pts for toxicity. Induction chemotherapy response: 1 CR and 34 PR (RR 62.5%; CI95%:50-75), 16 SD (28.6%) and 5 PD (8.9%). 6 pts went to surgery: 3 pPR, 1 pSD, 1 pPD and 1 unresectable. 34 pts completed concurrent CT-RT treatment with 6 CR, 21 PR, 4 SD and 3 PD (RR 79.3%; CI95%:66-93). The median time to progression was 13 mo and median overall survival was 14 mo. The progression-free survival and overall survival at 1 year was 52% and 62% respectively. A total of 163 cycles of induction chemotherapy were administered (2.8 per pts), with the main toxicity (NCI-CTC) per pts Grade (g) 1-2/3-4 (%) was as follows: neutropenia 20.6/24.1; anemia 44.8/1.7; nausea/vomiting 39.6/1.7; fatigue 34.5/1.7; diarrhea 22.4/0; allergy 5.2/1.7; one toxic death were scored. The main toxicities (RTOG) in concurrent CT-RT were: g1-2 neutropenia/anemia 30.7/38.4 5% of pts; g1-2/3 esophagitis in 51.2/2.5% and g1-2/3 pneumonitis in 20.5/2.5% of pts.

Conclusions: Docetaxel and Cisplatin induction chemotherapy followed by bi-weekly docetaxel with concurrent thoracic radiotherapy is a feasible treatment option, showing good clinical activity and tolerability for locally advanced NSCLC.

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Is 2D versus 3D planning detrimental for local control and survival in preoeperative radiochemotherapy in NSCLC?

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¹ Radiation Oncology Departament, Lung Cancer Committee, Barcelona, Spain ² Lung Cancer Committee, Barcelona, Spain ³ Radiation Oncology Dept. ICO, Barcelona, Spain ⁴ Lung Cancer Committee Hosp. Clinic, Barcelona, Spain **Background:** We carried out a phase II trial to evaluate a regimen of polychemotherapy delivered concurrently with accelerated modified hyperfractionated radiotherapy (AMHR) in NSCLC stage III patients. A subanalysis was made of the impact of planning method (2D versus 3D) on local control and overall survival.

Methods: Thirty eight patients (pts) received neoadjuvant therapy consisting of AMHR 40.2 Gy over 3 weeks (1,8 +0,88 Gy, by concomitant boost), concurrent with the second cycle of chemotherapy using cisplatin 80 ml/m² on day 1, ifosfamide 1.5 gr/m² on day 1 and VP-16 100 mg/m² for 3 days.

Results: From October 1997 to October 2002, 38 pts were treated. The most frequent cell type was squamous cell carcinoma, 20 (54%), and adenocarcinoma 11, (30%). From 1997 to June 1999, 17 pts were prepared with 2D. After this date 21 pts were done with 3D. Clinical response to CRT at restaging was observed in 30 pts (79%). One pt (3%) had complete response, 16 pts (42%) partial response, 13 (34%) stable disease and 4 pts (8%) developed progression. Surgery included pneumonectomy (n=14), bilobectomy (n=1) and lobectomy (n=14) and exploratory thoracotomy (n=1). Pathologic examination of the resected tissue demonstrated no residual viable tumor, (pathologic CR) in 13 / 28 completely resected pts (45%). Clinical response of pts with pCR when evaluated before surgery was partial in 8, stable disease in 4 and complete response in one. Overall 20 (69%) pts had sterilization of mediastinal lymph nodes and downstaging .There was 1 surgically-related death. Maximum toxicity was: esophagitis grade II in 8 pts (22%) and III in 1 pt (3%), neutropenia grade III -IV in 24%, thrombocytopenia grade III-IV in 13% and anemia grade III-IV in 10.5%. Twelve pts (32%) required hospitalisation due to toxicity. Stratified by type of planning disease free survival differed with more local control in the 2D arm (16 months for 2D versus 11.91months with 3D) but without statistical significance. Overall survival was also equivalent.

Median survival for the whole series was 22 months with survival at 5 years being 21.38 %. Median and 5 - year survival for patients who did or did not undergo surgery were 26.5 months, 35% and 8 months and 0%, respectively.

Conclusions: In this neoadjuvant radiochemotherapy treatment the type of planning (2D versus 3D) is not significantly detrimental on local control or overall survival although a trend to lesser local control has been detected in pts prepared for 3D. This trend may be due to the learning curve and a lack of planning norms such as published by Senan et al in 2004.

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Carboplatin and Gemcitabine as adjuvant therapy in completely resected stage I-IIIA non small cell lung cancer patients

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Purpose: To evaluate the efficacy, toxicity and compliance associated with adjuvant Carboplatin and Gemcitabine (CBDCA - GEM) administration in completely resected patients with stage I - IIIA non-small lung cancer (NSCLC)