considerable part of proliferating clone, short time of tumor duplication, high ability to repopulation, heterogeneity of a new growth with prevalence of any subpopulation.
Disclosure: All authors have declared no conflicts of interest.

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EFFICACY AND SAFETY OF COMBINED RADIO-CHEMOTHERAPY IN LIMITED-STAGE SMALL CELL LUNG CANCER TREATMENT: A SINGLE-INSTITUTION EXPERIENCE

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Purpose: To evaluate the efficacy and safety of the combined modality treatment in patients with limited-stage small cell lung cancer (SCLC).
Patients and methods: Fifty-eight patients affected by limited-stage SCLC were treated between July 1987 and January 2006 at University of Florence. All patients were treated with combined early chemotherapy and thoracic radiotherapy. Median age was 62 years (range 41–77), 44 were female and 14 male. No patient underwent surgery. A total of 238 cycles of chemotherapy (range 3–8, median 5 cycles) were administered; composed of platin-etoposide (CE, 34 patients) or alternated CE and epirubicin-ifosfamide (CE/EI, 24 patients) were used. A median total dose of 6000 cGy (range 5000–6400 cGy) with 200 cGy daily fractions was given to the primary tumour and mediastinum in 45 patients (77.6%) and only to the primary tumour in 13 patients (22.4%). Prophylactic cranial irradiation (PCI) was performed in all patients with complete response after combined treatment.
Results: Median follow-up time was 20 months (range 3-159). Five-years PFS and OS rates were 27 % and 18 %, respectively. No difference in terms of PFS and OS emerged between EC and CE/EI regimens ($p=0.41$). After combined treatment we registered 55% of complete response, 39% of partial response and 6% of progressive disease. Univariate analysis showed that a total radiation dose $\geq$6000 cGy significantly improved PFS ($p<0.05$). According to the Common Terminology Criteria for Adverse Events (CTCAE, Version 3.0) we registered 14 cases of G1-2 dysphagia and 11 cases of G1-2 esophagitis. Concerning haematological toxicity our results showed 16 cases of G1-2 neutropenia, 8 cases of G1-2 anaemia and 3 cases of G1-2 piastrinopenia. No significant differences emerged between different chemotherapy regimens ($p=0.30$).
Conclusions: Our treatment results are in accordance with the most relevant literature studies. In our experience the combined approach with radio-chemotherapy in limited-stage SCLC was effective and well-tolerated. Our results suggest that limited radiotherapy volumes and higher doses obtained with dose-escalation may improve SCLC outcome.
Disclosure: All authors have declared no conflicts of interest.

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CISPLATIN, ETOPOSIDE AND IFOSFAMIDE (PEI) IN THE TREATMENT OF SMALL CELL LUNG CANCER: MONOINSTITUTIONAL EXPERIENCE OF 59 CONSECUTIVE CASES

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Combination chemotherapy is very active in SCLC, although no improvement has been done in the last 20 years, with Cisplatin-Etoposide (PE) still considered the world-wide standard, with an average median survival of about 7 months in pts with extended disease (ED). In 1995, a randomized trial of the Hoosier Group, in 171 ED pts, showed a significant advantage in overall survival in the arm treated with PEI, compared to PE. Despite that, PEI is not a commonly used regimen in SCLC. Here we present a serie of 59 consecutive pts with SCLC that were treated at our Institution, in first and/or subsequent line with PEI: Cisplatin 20mg/m2, Etoposide 75mg/m2 and Ifosfamide 1200mg/m2, day 1 to 4, every 3 weeks. From Dec 1998 to Dec 2008, 59 pts, 40 males and 19 females, were considered; 21 with LD and 38 with ED. Median age was 59, with PS 0 in 59%, PS 1 in 32% and PS 2 in 9%. Overall, 364 cycles of PEI were given, with an average of 6 cycles and 2 lines per patient. 48 pts received PEI in first line, 24 in second, 16 in third and 4 in subsequent lines (range 4-6). In the serie of 59 pts, the PR rates were 75%, 42% and 13% and CR were 13%, 17% and 13% in 1st, 2^{d} and 3^{d} line, respectively, with a ORR of 87%, 58% and 25%. In 21 LD pts, Time To Progression was 12.7, 7.9 and 5.8 mts in 1st, 2^{d} and 3^{d} line, respectively; in 38 ED pts, TTP was 6.8, 5,0 and 3.0 mts. OS was 26.3 mts in LD pts, and 13.2 mts in ED pts, with 2 year Survival of 62% in LD and 24% in ED. Median Dose Intensity for all 3 drugs was about 89% when PEI was given in first line, 80% in second line and 87% in third line. Haematologic toxicity was the most frequent adverse event, with G3-4 Neutropenia in 56%, Anemia in 27% and thrombocytopenia in 21% of the pts, in first line. Three toxic deaths were observed, all in PS $\geq$ 1 pts: two for febrile neutropenia in pts receiving the first cycle of a third line, and one in the first cycle of a first line, for heart failure in a cardiopatic patient. In our study the regimen PEI confirmed a high activity and efficacy, both in LD and ED pts. Toxicity was manageable, with a high dose intensity also in pts heavily pretreated, that received PEI as rechallenge, after two previous lines of PEI or other Platinum based chemotherapy.
Disclosure: All authors have declared no conflicts of interest.

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FIRST AND SECOND LINE SYSTEMIC CHEMOTHERAPY RESPONSES IN SMALL CELL LUNG CARCINOMA

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Introduction: Small cell lung cancer (SCLC) accounts for approximately %15 of all lung neoplasm. Treatment of limited-stage SCLC consists of combination chemotherapy and concurrent radiotherapy while chemotherapy is cornerstone of treatment in extensive-stage. Although SCLC is both chemotherapy and radiotherapy sensitive, recurrences are common during the course of the disease. Here we discuss survival rates, treatment patterns and characteristics of patients that were followed up between 2005 to 2009 in our centre.
Material-methods-results: Thirty eight patients were studied during this period and the patients characteristics were as follows: 35 patients were men and 3 patients were women. Mean age and mean cigarette smoking were 57 years old (range 38–85 years old) and 45, 9 pack-years (range 0–110 pack-years) respectively. 20 patients had limited-stage and 18 patients had extensive-stage disease at diagnosis. All patients except two of them received chemotherapy with or without radiotherapy. Cisplatin plus etoposide was initiated as a first-line chemotherapy regimen to all patients. Median overall survival time, determined by the Kaplan-Meier method, was 11 months (range 6.8–15.1 months). There was no relationship between overall survival and patients LDH and hemoglobin levels. Median progression free survival after first line chemotherapy was 7 months (range 6.1–7.8 months). Of 18 patients who were given second-line chemotherapy seven of them received cyclophosphamide, doxorubicin, vincristine (CAV) combination chemotherapy and remainder received irinotecan based therapy. Progression free survival after second line chemotherapy was 2 months (1.1–2.8 months) and there was no statistically significant difference between these two regimens.