

if we consider only pts treated with the API-AI protocol in AD. The results observed with this non containing MTX regimen have to be validated by a large multicenter study and consecutively tested in teenagers.

## Adult leukemia/Lymphoma

316

POSTER

### Gender plays an important role in prognostic power of tumor distribution pattern in b-chronic lymphocytic leukemia (B-CLL).

B. Jaksic<sup>1</sup>, O. Jaksic<sup>2</sup>, F. Morabito<sup>3</sup>, M. Brugiatielli<sup>3</sup>. <sup>1</sup> University Hospital "Mercur", Medicine, Zagreb, Croatia; <sup>2</sup> University Hospital "Dubrava", Medicine, Zagreb, Croatia; <sup>3</sup> Azienda Ospedaliera "Bianchi-Melacrino-Morelli", Hematology, Reggio Calabria, Italy

**Purpose:** B-cell chronic lymphocytic leukaemia (B-CLL) has highly variable clinical presentation, course and prognosis. In order to evaluate the impact of tumor cell distribution pattern on clinical course, the prognostic analysis was performed on 341 B-CLL patients.

**Design and Methods:** we introduced the model for tumor distribution (TD) assesment based on Total Tumor Mass (TTM) scoring system, where TD value represents percentage of total tumor mass infiltrating peripheral blood and bone marrow ( $TD = TTM1/TTM$ ). TD can be categorized into 3 subgroups: "pure leukemia" if  $TD = 100\%$ , "predominantly leukemia" if  $TD = 50\%-99\%$  and "predominantly lymphoma"  $TD < 50\%$ .

**Results:** We found following distribution pattern among 341 B-CLL patients: 22.6% were "pure leukemia", 56.0% "predominantly leukemia" and, 21.4%, "predominantly lymphoma" cases, with a median overall survival of 95, 61 and 36 months respectively ( $p < 0.0001$ ). TD parameter significantly correlates with TTM size, Rai and Binet stages, spleen size, beta-2 microglobulin, but failed to correlate with age, lymphocyte count, soluble CD23, and bcl-2/bax ratio. Highly significant association of DT with prognosis was found in overall population of B-CLL patients ( $p < 0.0001$ ). However, to our surprise, both in univariate prognostic analyses and in multivariate Cox analysis this effect is much stronger in female patients, while virtually failing in male patients. In female patients DT is the strongest independent predictor of prognosis ( $p = 0.000$ ) followed by age ( $p = 0.058$ ), and Binet stage ( $p = 0.026$ ).

**Conclusions:** Tumor mass distribution pattern, a quantitative and simple clinical parameter is independent and strong prognostic parameter in B-CLL. Unexpected finding of substantial difference in prognostic power of DT between genders points out to an interesting, yet unexplained biological impact of gender in pathogenesis of B-CLL.

## Adult Hodgkin's lymphoma

317

POSTER

### Cardiopulmonary response to exercise in patients cured with chemo-radiotherapy for Hodgkin's disease

F. Villani<sup>1</sup>, V. Bonfante<sup>2</sup>, A. Fede Catania<sup>1</sup>, C. Materazzo<sup>3</sup>. <sup>1</sup> Istituto Nazionale Tumori, Pneumology, Milan, Italy; <sup>2</sup> Istituto Nazionale Tumori, Medical Oncology, Milan, Italy; <sup>3</sup> Istituto Nazionale Tumori, Cardiology, Milan, Italy

**Purpose:** Combined CT and RT, including the mediastinum, can produce subclinical and cardiac toxic effects. From 1998 we evaluated cardiopulmonary response to exercise in pts with HD treated with this combined modality and in complete remission after >5 year follow-up.

**Methods:** The study was performed in 94 pts, M/F 40/54, mean age 36 yr (range 21-65). Initial stage was I in 7 pts, II in 73 pts, III in 3 pts and IV in 11 pts. CT regimens included ABVD in 56 pts, MOPP/ABVD in 10 pts, VEBEP (Vepesid, Epirubicin, Bleomycin, Cyclophosphamide, Prednisone) in 28 pts. The median cumulative dose administered was 77 mg/sqm for Bleomycin, 160 mg/sqm for Doxorubicin and 313 mg/sqm for Etoposide. The median RT dose delivered to the mediastinum was 34.4 Gy, range 27-44. Before exercise test pts were divided into 3 groups according to lung function parameters: group 1 (52 pts) with normal values; group 2 (33 pts) with total lung capacity (TLC) normal, but transfer lung factor for CO (DLCO) < 80% of predicted; group 3 (9 pts) with both spirometry and DLCO < 80% of predicted. The median drugs and RT doses received by these 3 groups of pts were similar. Pts were submitted to respiratory and arterial blood

gasses analysis, determination of cardiac output (acetylene rebreathing method) before and during a symptom limited exercise on cycloergometer using an incremental protocol. Expiratory gasses were analyzed by a mass spectrometer.

**Results:** Pts of groups 2 and 3 in comparison with those of group 1 showed a lower oxygen consumption ( $VO_2$  max: group 1 vs group 2 and vs group 3: 59.3%, vs 58% vs 52.5 of predicted) and a significant lower cardiac output per oxygen uptake.

Significant correlations were observed between basal TLC, stroke index and  $VO_2$  max.

**Conclusions:** These data show a reduction of the physiological response to exercise in pts with pulmonary impairment after CT-RT, in particular when the reduction of DLCO is associated with modification of spirometric parameters.

This lower capacity to exercise seems to be due to a combination of lung impairment for gasses diffusion and to a reduction of myocardial function with decrease of stroke volumes.

318

POSTER

### Early Hodgkin's disease: treatment without radiotherapy

P. Provencio<sup>1</sup>, P. España<sup>1</sup>, I. Millan<sup>1</sup>, A. Sanchez<sup>1</sup>, B. Cantos<sup>1</sup>, M. Yebra<sup>2</sup>, J. Vargas<sup>2</sup>, F. Roman<sup>2</sup>, C. Miralles<sup>1</sup>, B. Bonilla<sup>1</sup>. <sup>1</sup> Clinica Puerta De Hierro, Medical Oncology, Madrid, Spain; <sup>2</sup> Clinica Puerta De Hierro, Internal Medicine, Madrid, Spain

The treatment of choice for patients with early stage Hodgkin's disease (HD) has been extended field or subtotal nodal irradiation. Remission rates of over 95% have been obtained, however, about 5% of stage I and II patients will suffer from progressive disease while on therapy and an additional 15% - 20% will relapse. Chemotherapy (CT) alone has not been adequately tested in early-stage HD.

**Patients, methods and results:** All HD stage I and II patients treated with CT alone between 1980 and 1997 were reviewed. Thirty-five patients were treated between 04/80 and 12/97. All patients achieved complete remission. The median follow-up was 119 months (range 21-240 months), no patients were lost at follow-up. Overall survival was 97% (IC 95%, 92-100) at 5 years and 88% (IC 95%, 75-100) at 10 years. Failure free survival was 93% (IC 95%, 83-100) at 5 years and 66% (IC 95%, 47-86) at 10 years. Three (8.5%) patients died: 2 due to a second tumour (non-Hodgkin's lymphoma and myeloid acute leukaemia) and the other due to sepsis post-Ch. Univariate and multivariate analysis only associated histology subtype relative risk 4.0 nodular sclerosis (95% IC, 1.0 - 5.5;  $p = 0.02$ ) with higher relapse. Other prognostic factors did not reveal significant differences with respect to failure free or overall survival.

**Conclusions:** We believe that death from HD in early-stage patients is unusual and mortality from causes other than HD occurs many years later. Outside clinical trials due to the lack of clear prognostic factors, with the exception of specific situations, patients should be informed of all the possible alternatives as well as the consequences of the treatments employed. In our experience it appears that using CT alone in the initial stages does not jeopardise overall patient survival, with similar results being achieved.

319

POSTER

### Feasibility of the Integration of Stanford V ct regimen with highly active antiretroviral therapy (HAART) and G-CSF in patients (pts) with HD and HIV infection (HD-HIV)

M. Spina<sup>1</sup>, J. Gabarre<sup>2</sup>, E. Vaccher<sup>1</sup>, A. Re<sup>3</sup>, A. Palmas<sup>4</sup>, A. Antinori<sup>5</sup>, M. Clerico<sup>6</sup>, U. Tirelli<sup>1</sup>. <sup>1</sup> National Cancer Institute, Medical Oncology A, Aviano, Italy; <sup>2</sup> Pitié-Salpêtrière, Hematology, Paris, France; <sup>3</sup> Civil Hospital, Oncology, Brescia, Italy; <sup>4</sup> Civil Hospital, Oncology, Nuoro, Italy; <sup>5</sup> Spallanzani Hospital, Oncology, Rome, Italy

The outcome of pts with HD-HIV is still poor, mainly because the duration of complete remission (CR) is quite short. In order to try to improve the prognosis of HD-HIV, a feasibility study with the intensive 12-week CT regimen with adjuvant radiotherapy, Stanford V and concomitant HAART was started in previously untreated HD-HIV pts with bulky limited stage or stage III-IV. Pts were treated with CT(mg/mq) including doxorubicin 25 and vinblastine 6 on wks 1, 3, 5, 7, 9, 11; nitrogen mustard 6 wks 1, 5, 9; etoposide 60 x 2 wks 3, 7, 11; vincristine 1.4 (max 2) and bleomycin 5 wks 2, 4, 6, 8, 10, 12 and prednisone 40 qod. Since April 1997, out of 49 pts entered, 46 are now evaluable for toxicity and response. The median age was 36 yrs (range 28-63). All pts but 5 were males, 20 were IVDUs, 14 homosexuals and 12 heterosexuals. The median CD4+ cell count at entry