

the mediastinum. Abdominal involvement precedes upward spread via the pulmonary hili and upper mediastinum on the left side or on both sides to the cervical or axillary or inguinal nodes.

801 POSTER SECOND AUTOGRAFTS FOR RELAPSED MYELOMA

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Forty-four pts (34–64 y, med 47.5) underwent second autografts for relapsed myeloma 10–99 mo (med 33.5) after the first. All received high-dose melphalan and BM (43 auto, 1 twin) the first time. 30 received high-dose melphalan, 10 busulfan, and 4 TBI for the second. The source of cells was BM (29 auto, 1 twin) or blood stem cells ($n = 14$). At the time of the second transplant, 2 pts were in CR, 21 in PR, and 21 had progressive disease. Hematologic recovery was complete in all pts after the first transplant, but not after the second. 12 pts died of toxicity at 0.5–5 mo (med 1). 16 died of progressive disease or toxicity of further therapy 2–54 mo (med 16) later. 10 pts attained CR after transplant. The probability of progression-free survival at 3 years is 8.9% (95% CI: 1.8–23.5%). 14 pts were started on IFN- α 1.5–9 mo (median 2.5) after the second transplant before any evidence of disease progression. 16 pts, 12 on IFN- α , are alive 1.5–66 mo (med 10.5) after the second transplant: 2 in continuous CR, 7 in stable PR, and 7 with progressive disease. The overall survival of this group was not different from a group of 60 relapsed patients who did not undergo repeat transplants. We conclude that although repeat autografts are feasible in relapsed myeloma, it is difficult to show an improvement in survival and the exact place of second transplants remains to be defined.

802 POSTER DOSE INTENSITY (DI) CHEMOTHERAPY IMPROVES DISEASE FREE SURVIVAL IN ELDERLY AGGRESSIVE NON-HODGKIN'S LYMPHOMA (NHL) PATIENTS TREATED WITH CONVENTIONAL CHOP

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Aggressive NHL in elderly pts remains a problem when are treated with suboptimal chemotherapy dosage; however the exact role of CHOP dose intensity in the outcome of these pts. has not been fully addressed.

Between 1982 and 1993, 284 pts with intermediate and immunoblastic NHL, older than 60 years old were admitted to receive conventional CHOP for 6 courses or until progression; 171/284 were evaluable for response and toxicity.

The F/M ratio was 1:1.25 with a median age of 69 years (61–84). The histology was WF:G 95/171, WF:H 31/171 and WF:E 20/171. According to the International Index 59/171 (34%) were Low Risk; 64/171 (37%) Low-Intermediate, 34/171 (20%) High-Intermediate and 14/171 (8%) High risk group. There were 10/171 toxicity-related deaths and five deaths due to disease progression (5) during the treatment. Sixty-two percent of the pts. (107/171) achieved complete response (CR).

All patients were stratified in two groups according to a Relative dose intensity RDI ($\text{mg}/\text{m}^2/\text{week}$) in two groups: A) $\geq 80\%$ and B) $\leq 80\%$. No CR rates differences were noted between two groups. With a median follow up of 30 months, the two-year disease free survival (DFS) was similar in two groups, except for the low intermediate risk in favor of the high RDI group (81% vs 45%, $P = 0.002$). A benefit in the 5 year-overall survival (DS) was also observed in both intermediate risk groups (69% vs 30% and 44% vs 0%, $P = 0.002$). These data suggest a survival benefit in at least two subsets of elderly NHL pts who received $\geq 80\%$ R.D.I. of CHOP, showing the advantage of the DI concept in elderly LNH pts.

803 POSTER RADIOTHERAPY SALVAGE FOR HODGKIN'S DISEASE AFTER CHEMOTHERAPY FAILURE

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A retrospective study was performed at the PMCI to assess the effectiveness of radiotherapy (RT) as sole salvage treatment for relapsed Hodgkin's disease (HD). Between 1978 and 1992, 52 patients with relapsed/refractory HD following chemotherapy (CT) received RT with

curative intent. Patient characteristics at diagnosis: median age 26, with 32% > 40 years old; M/F 31/21; stage I–4, II–16, III–25, IV–7. Initial CT was MOPP– 31 patients, ABVD–1, both–16. A median 6 cycles of CT was given per regimen. Prior to salvage RT, 26/52 patients had received both MOPP and ABVD, either as sequential regimens, or as alternating or hybrid protocols. The response to initial CT was: CR–30, PR/SD–18, PD–4. Duration of initial CR was < 12 months in 8/30 patients. Salvage treatment consisted of radiotherapy to all known areas of disease. Doses ranged from 3600–4000 cGy. Twenty three patients (45%) achieved CR. With a median follow-up of 70 months (range 4.8–166), actuarial median failure free survival (FFS) and overall survival (OS) are 22 months and 83 months respectively. Actuarial 5 year FFS and OS are 26% and 57% respectively. Patients with CR duration > 12 months following initial CT, only one CT regimen prior to salvage RT, and anatomically limited relapse had a significantly longer FFS. These factors, and age < 40 were associated with significantly longer OS. Only 6% of patients failed solely in the irradiated volume as first site of relapse. Salvage RT was well tolerated and resulted in no treatment-related deaths. RT is of benefit in selected patients, and should be considered as a treatment option for patients with HD who fail CT.

804 POSTER EPSTEIN-BARR VIRUS AND HODGKIN'S DISEASE: COMPARISON BETWEEN ALGERIAN AND FRENCH PATIENTS

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The prevalence of Epstein-Barr virus (EBV) markers in nodal lesions from Algerians (Al) patients ($n = 68$) was compared to French (Fr) patients (Pts) ($n = 21$) with Hodgkin's disease. Initial characteristics were: males Fr 57%, Al 53%; median age Fr 29, Al 25; histologic subtypes: lymphocytic predominance (LP) Fr 1, Al 3; nodular sclerosis (NS) Fr 16, Al 33; mixed cellularity (MC) Fr 4, Al 30; lymphocytic depletion (LD) Al 2.

The latent membrane protein (LMP) expression was founded in Reed-Sternberg cells (RSC) in 26 cases Al (1 PL, 8 NS, 17 MC) and 4 Fr (2 NS, 2 MC). All cases LMP-positive were also by DNA or RNA *in situ* hybridization (ISH). ISH was positive in RSC of 29% of Fr and 66% of Al Pts ($P < 0.02$); the positivity was more frequent in MC (80%) than in other histologic types (39%). EBV genome was detected by PCR on DNA in 84% of Fr and 95% of Al patients (100% of MC and 86% of other histologic types).

More pronounced ISH positivity in Al young adult cases ($P < 0.05$) can result from the age at primary EBV infection, which occurs earlier in Algeria than in France.

805 POSTER VINCISTINE, ETOPOSIDE, MITOXANTRONE AND PREDNISONE (VEMP) AS FIRST-LINE CHEMOTHERAPY FOR HODGKIN'S DISEASE (HD)

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Etoposide and mitoxantrone were combined with vinca alkaloid and steroid in order to evaluate the activity of a new combination, VEMP, whilst avoiding the long term complications related to MOPP and ABVD. 30 consecutive patients (pts) with *de novo* HD were treated between Jan. 1992 and Dec. 1994. 21 were males, median age was 34 years (range 18–67). 3 patients were HIV+. 18 had nodular sclerosis, 8 mixed cellularity, 3 lymphocytic predominance, 1 lymphocyte depletion. 2 pts were IA, 6 IIA, 3 IIB, 5 IIIA, 3 IIIB, 2 IVA, 9 IVB. 4 pts had lung involvement, 2 bone marrow, 1 liver, 1 bone, 3 both liver and bone marrow. VEMP was given on a 21-day (D) cycle basis for a median of 6 courses as follows: vincristine $1.4 \text{ mg}/\text{m}^2$ iv D1 and 8, etoposide $100 \text{ mg}/\text{m}^2$ iv D1 to 4, mitoxantrone $10 \text{ mg}/\text{m}^2$ D1 and prednisone $100 \text{ mg po D1 to 5}$. Toxicity data are available for 25 pts. 6 pts had grade (G) 4 WHO leucopenia, 18 G2, 2 G1. 1 pt had G4 infection, 2 G2, 1 G1. 1 pt had G4 thrombocytopenia, 7 G1. Peripheral neuropathy G1 occurred in 10 pts, G2 in 6. 1 pt had cutaneous erythema, 1 toxic hepatitis, 1 myocardial infarction, 1 fatigue. Response rate was 100% with 42% complete remission (CR), 20% CR unconfirmed (CRu) and 38%