The platelet, hemoglobin, and WBC counts were followed every three months after completion of CLI. These counts were normalized to the pretreatment counts for statistical analyses. Univariate and multivariate analyses were performed to investigate the relationship between patient factors and hematological status at 1 year posttreatment. Pearson correlation analysis was used for the continuous factors (patients' age, height, weight, BSA, bone marrow cellularity, and duration of CLI) and the Mann-Whitney test was used for categorical factors (gender, performance status, stage, number of sites receiving ≥ 39.6 Gy, and presence or absence of cardiovascular disease).

**Results:** There was a continued recovery, essentially reaching the pretreatment levels, over 3 years for platelet counts, WBC and hemoglobin. Factors significantly associated with normalized platelet counts at 1 year by univariate analyses were age (P = 0.015) and cardiovascular disease (P = 0.041). Age was the only significant factor by multivariate analyses, with older patients having lower platelet counts at 1 year post-treatment. No factors were found to be significantly associated with 1-year normalized WBC or hemoglobin levels by either univariate or multivariate analyses.

**Conclusion:** All three of the hematological components (platelets, WBC, and hemoglobin) essentially recover after CLI over a 3 year period though the process appears to be slowest for platelets. Older age was the only significant adverse factor affecting the platelet recovery detected by multivariate analysis.

## 2135 Involved field radiotherapy after chop-based chemotherapy improves local control and freedom from progression in patients with bulky, clinical stage III–IV, intermediate grade of large-cell immunoblastic lymphomas

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**Purpose:** To analyze the impact of involved field radiotherapy on local control, freedom from progression and overall survival in patients with clinical stage III–IV, intermediate grade or large-cell immunoblastic lymphomas that have responded to induction cyclophosphamide, doxorubicin, vincristine and prednisone (CHOP)-based chemotherapy.

**Materials and Methods:** From July 1989 through October 1996, 32 patients with clinical stage III and 27 patients with clinical stage IV, intermediate grade or large-cell immunoblastic lymphomas were prospectively enrolled on 2 protocols (DM 88-087 and DM 93-003) at The University of Texas M. D. Anderson Cancer Center (UTMDACC). There were a total of 172 involved sites of disease at presentation. All 59 patients received CHOP-based chemotherapy. At least 6 cycles of chemotherapy were delivered to 92% of the patients. Involved field radiotherapy (39.6–40.0 Gy in 20–22 fractions in 74% of cases) was administered to the initially-involved sites of disease in 28/59 (47%) patients following CHOP-based chemotherapy. Sites were irradiated at the discretion of the treating physicians. Two patients with bulky disease did not receive radiotherapy because their lymphoma progressed during induction chemotherapy; consequently, these 2 patients were excluded from the analysis. The Cox proportional hazards model was used to assess the prognostic significance of radiotherapy, international prognostic index (IPI) and UTMDACC tumor score. Twenty-six patients had an IPI = 1 and 33 patients had an IPI = 2–4. Kaplan-Meier estimates of outcomes for the irradiated and non-irradiated groups were calculated as a function of IPI, and these results were compared using the log-rank test. Groups were analyzed according to the treatment delivered.

**Results:** The median length of follow-up was 52 months for survivors (range: 9–96 months). The median tumor size at the start of chemotherapy in the irradiated patients was 4.5 cm (range: 0–15 cm) versus 3 cm (range: 0–7 cm) in the non-irradiated patients (p = 0.004, Mann-Whitney test). Radiotherapy resulted in a statistically significant improvement (p = 0.001) in local control (5-year rates: 89% versus 52%). This benefit was due to the marked improvement (p = 0.0009) in local control for patients with lymphomas measuring ≥ 4 cm at the start of chemotherapy (5-year rates: 89% versus 33%). Radiotherapy also improved (p = 0.003) freedom from progression (5-year rates: 85% versus 51%), regardless of the size of the lymphoma at the start of chemotherapy. On multivariate analysis, radiotherapy was the most significant factor affecting local control and freedom from progression. The improved overall survival (5-year rates: 87% versus 81%) in irradiated patients was not statistically significant (p = 0.6).

**Conclusion:** The results suggest that involved field radiotherapy may benefit patients with bulky, clinical stage III–IV, intermediate grade or large-cell immunoblastic lymphomas who have received 6 cycles of CHOP-based, induction chemotherapy.

## 2136 The impact of chest wall involvement on the outcome of clinical stage I/II Hodgkin's disease treated with combined modality therapy

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**Purpose:** 1) To determine whether patients with extranodal (particularly chest wall and lung) involvement of Hodgkin's disease have worse outcomes after adjusting for currently known prognostic factors. 2) To analyze the failure patterns in patients with extranodal disease to determine whether local failure is more common in these patients.

**Materials and Methods:** We analyzed the outcome of 340 patients with clinical stage I–II HD treated with combined modality therapy from 1981–1996. There were 170 females and 170 males. Median age was 29 (range 15–78). 242 patients received adriamycin-containing chemotherapy; 89 received MOPP; 9 received other chemotherapy. Median RT dose was 35Gy. 44 patients had clinical stage I disease; 296 had clinical stage II. Cox modeling of overall survival (OS), cause-specific survival (CSS), disease-free survival (DFS), relapse-free rate (RFR) and local control (LC) was performed, using the following