for response to treatment, survival and prognostic factors. Patients were classified into 3 prognostic groups with respect to stage and the presence of risk factors; early stage (I–IIIa) without risk factors (group 1), early stage with risk factors (group 2), advanced stage patients (IIIb–IV; group 3) and treated accordingly.

Results: 27 (21.6%) patients with advanced disease, 56 (44.8%) with early stage and additional risk factors were treated with primary chemotherapy. 71 patients (85.6%) were given standard anthracycline-based combinations. After a median follow-up period of 40 months; 70 (55.6%) patients remain with no evidence of disease and 16 (19.3%) have died. Overall survival (OS) at 7 years in the 1st group was 97.0%; in the 2nd group OS at 5 and 7 years were 81.0% and 60.0%, respectively and that of the 3rd group at 3 years was 80.8%. OS at 5 and 7 years for the whole group were 86.5 and 76.9%, respectively. Progression free survival for the latter group at 5 years was 74.1%. Median survival was not reached in either group. Univariate analysis revealed that ESR > 40 mm/hr (p: 0.0004), age > 50 years (p: 0.0001) and the presence of risk factors (p: 0.0089) were associated with a poor prognosis. Age > 50 years and ESR > 40 mm/hr were also shown to be independent prognostic factors by multivariate analysis.

Conclusion: ESR > 40 mm/hr and age > 50 years are major prognostic factors with an adverse effect on the outcome of patients with HD.

1365 PUBLICATION

Drug resistance mechanisms in EBV-associated multiple myeloma as posttransplantation lymphoproliferative disorder

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The posttransplantation lymphoproliferative disorders (PT-LPD) are Epstein-Barr virus driven diseases. Multiple myeloma as PT-LPD is rare. Since complete response to chemotherapy has not been published in this disease, expression of drug resistance mechanisms are probable but have not been evaluated yet. We determined the expression of mRNAs encoding classical and atypical MDR-associated factors by RT-PCR. The cells were monoclonal, showed a high proliferative activity, expressed BB4 but not CD 20. P-glycoprotein and cMOAT were strongly overexpressed. In addition, H19 and NCA expression was increased. No modulation of the expression of LRP, Topo IIα, Topo IIβ, MLH1, MSH2 and MXR7 could be observed. These results might might give us some insight into the drug resistance features of EBV-associated multiple myeloma cells occurring as PT-LPD.

1366 PUBLICATION

Evaluation of drug resistance mechanisms in mast cell leukemia

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Malignant mastocytosis and mast cell leukemia are rare forms of mastocytosis characterized by uncontrolled proliferation of mast cells in diverse organs. No effective therapy is known although some patients may benefit from interferon and corticosteroid treatment. Drug resistance mechanisms in this disease have not yet been evaluated. We determined the expression of mRNAs encoding classical and atypical MDR-associated factors by RT-PCR in human malignant mast cells. P-glycoprotein was strongly overexpressed. MRP, LRP, cMOAT, H19 and NCA were also overexpressed. No modulation of the expression of Topo IIα, Topo IIβ, MSH2 and MXR7 could be observed. Dexamethason had an inhibitory effect at 1 μg/mL on colony formation. No inhibition of colony formation was detected with cytosine arabinoside at 1 μg/mL and interferon alpha at 10 IU/mL but at higher concentrations with these drugs. These results might give us some insight into the drug resistance features of human malignant mast cells.

1367 PUBLICATION

Cancer and radiation therapy in Behçet's disease

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Introduction: Behçet's disease is rarely reported in association with malignancies. No data about radiation therapy morbidity in the presence of Behçet's disease is reported. Here, seven cases of Behçet's disease concurrent with malignancy and morbidity of the radiation therapy are reported.

Patients: Several malignancies were diagnosed in seven patients with the history of Behçet's disease at Hacettepe University Faculty of Medicine between 1987 and 1998. Median age at the diagnosis of malignancy was 44 (25–55) years. The malignancies were cervix, bladder, stomach, pancreas cancers, malignant mesenchymal tumor, Hodgkin and non-Hodgkin lymphomas. Four patients received radiation therapy as primary or adjuvant therapy in conventional fractionation and conventional total dose. Three of them experienced severe late radiation reactions of brachial plexopathy, ureter fibrosis and skin necrosis 4 to 6 months after termination of radiotherapy.

Conclusion: Lymphoma and leukemia have been reported previously in the literature in association with Behçet's disease and cytotoxic agents used in the treatment of this disease were accused to be the causative factors. Solid tumors may also be observed in the course of Behçet's disease as it is the case in the present report. We assume that vasculitis which is a known basic histopathological mechanism in Behçet's disease may have played a role in the development of severe late radiotherapy morbidity.

1368 PUBLICATION

Hepatitis c virus infection (HCV) and b-cell non-Hodgkin lymphoma (NHL)

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We designed the present study to investigate the prevalence of this association among Spanish B-cell NLH patients and correlate virological findings with clinical features.

Methods: In this transversal study, between January 1998 and December 1998, 52 lymphoma patients were recruited. All patients had received prior chemotherapy or they were under treatment. Patients with prior history of intravenous drugs abuse or human immunodeficiency virus were excluded. Patients were classified according to Working Formulation and the Ann Arbor system. Sex, 27 were men and 35 women; the mean age was 54.9 years (20–76). Low grade lymphomas 23, intermediate 13, high grade 16. All patients were tested by antibodies and HCV RNA presence. Serum virus C antibodies were examined by ELISA and Immunoblot. RNA virus was analyzed by RT-PCR. Positive samples underwent genotype identification by line probe assays.

Results: We detected HCV in 6 patients (11.53%) with no discordance between both techniques in any case. Genotype was determined in 4/6 cases, and 1b (Simmonds classification) was detected in all of them. Histological type: 2/6 low grade, 1/6 intermediate and 1/6 high grade lymphoma. Among the six positive C virus patients, 5 had increased transaminasemia.. Clinical complete response of the HVC(+) B-cell NLH was achieved in 4/6 and in 21/46 of HVC(−)

Conclusions: Spanish patients with B-cell NHL exhibited a HCV prevalence of 11.53%. The predominant HCV genotype was 1b No significant difference in clinical response was observed.

1369 PUBLICATION

Management of primary Non-Hodgkin's lymphoma (PNHL) of the liver: Our experience

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Purpose: PNHL of the liver represents a singular and rare tumor with few clinical eases reported in literature (about 100) and a peculiar location (0.4% of all extranodal sites). The purpose of this short report was to define the