Results: Characteristics of 6 enrolled Eypatients were: M/F: 3/3; median age: 56 yrs (range 54–73); 4/6 patients received two cycles of MTX-HD, 2/6 only one cycle because of hepatic and renal toxicity. Three out of six patients received TMZ at the dose of 50 mg/mq/die and 3/6 at the dose of 60 mg/mq/die. All patients completed RT-CT without interruptions. Only one patient presented grade-2 treatment related acute haematological toxicity. Median follow-up was 11.5 months (range 5–30). No patient experienced MTD.
Conclusion: RTCT with concomitant TMZ at a dose of 60 mg/mq/die is well tolerated; further dose escalation is ongoing to define MTD before prospective phase II study.

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High frequency and prognostic importance of autoimmune hemolytic anemia in splenic marginal zone lymphoma

A. Fodor[1]*, I. Hoffer[2], L. Krenács[3], E. Bagdi[3], J. Csomor[4], A. Matolcsy[4], M.Z. Molnár[5], H. Eid[6], Z. Nagy[6], J. Demeter[6].
[1]*Semmelweis University, 1st Department of Medicine, Division of Hematology, Budapest, Hungary,* [2]*St. Janos Hospital, Department of Transfusiology, Budapest, Hungary,* [3]*Laboratory of Tumor Pathology, Department of Molecular Diagnostics, Szeged, Hungary,* [4]*Semmelweis University, 1st Department of Pathology and Experimental Cancer Research, Budapest, Hungary,* [5]*Semmelweis University, Department of Transplantation and Surgery, Budapest, Hungary,* [6]*Semmelweis University, 1st Department of Internal Medicine, Budapest, Hungary*

Background: Splenic marginal zone lymphoma is a rare disease, accounting for 1% of all lymphomas. The main disease features are splenomegaly, lymphocytosis and cytopenias. Autoimmune phenomena have been reported to be present in 9 to 20% of the patients. SMZL generally has an indolent clinical course with a 5-year survival rate of 65–72%.
Methods: Between May, 2000 and May, 2009, 23 patients were diagnosed with SMZL at our department. One of these patients has SMZL and hairy cell leukemia derived from two different neoplastic clones.
Results: Based on the prognostic model developed by Intergruppo Italiano Linfomi 26% (6/23) of our patients had good, 39% (9/23) had intermediate and 35% (8/23) had a poor prognosis. The presence of two out of three prognostic factors (anemia, elevated LDH, low serum albumin) assignes the patient into the high risk category. All patients had a serum albumin level within the healthy reference range. We have observed the presence of autoimmune hemolytic anemia (AIHA) according to immunhematological features in 10 out of 23 patients (43%). Six out of 10 cases were complicated by clinically important AIHA, and four of them died 5–28 months after the diagnosis. The median follow-up time of those 15 patients (65%) who are still alive is longer than 54 months (8–118). Only one patient had autoimmune thrombocytopenia.
Conclusions: In SMZL patients with clinically important hemolysis, the outcome seems to be especially poor. Direct antiglobulin test (DAT) positivity itself, without clinically important hemolysis does not influence outcome, these patients became DAT negative following splenectomy. For patients with SMZL with or without AIHA, splenectomy is of utmost importance. The prognostic effect of rituximab remains to be evaluated.

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Significant reduction of second breast cancer risk in patients treated with involved nodes radiation therapy for early stage Hodgkin's lymphoma

A.R. Filippi[1]*, P. Ciammella[1], C. Fiandra[2], A. Botticella[3], R. Ragona[2], U. Vitolo[4], A. Levis[5], E. Brusamolino[6], M. Federico[7], U. Ricardi[1]. [1]*AOU San Giovanni Battista – University of Torino, Department of Radiation Oncology, Torino, Italy,* [2]*AOU San Giovanni Battista – University of Torino, Department of Radiation Physics, Torino, Italy,* [3]*University of Torino, Department of Radiation Oncology, Torino, Italy,* [4]*AOU San Giovanni Battista, Department of Hematology, Torino, Italy,* [5]*AO SS Antonio e Biagio, Department of Hematology, Alessandria, Italy,* [6]*Policlinico S. Matteo, Department of Hematology, Pavia, Italy,* [7]*Centro Oncologico Modenese, Department of Hematology, Modena, Italy*

Aim: To evaluate the impact of Involved Nodes Radiation Therapy (INRT) in comparison with Involved Fields Radiation Therapy (IFRT), and of low-dose INRT in comparison with standard-dose INRT, on individualized breast cancer (BC) risk in patients enrolled by our Institution in the EORTC-GELA-IIL H10 trial for stage I–II supra-diaphragmatic Hodgkin's Lymphoma (HL).
Materials and Methods: Ten HL female patients under 30 yrs old (with mediastinal involvement) were treated with INRT 30 Gy. Two additive RT plans were then constructed for comparison: IFRT 30 Gy and INRT 20 Gy. IFRT volumes were defined according to standard guidelines, while INRT volumes according to H10 trial guidelines. Breast-specific differential Dose Volume Histograms (DVHs) were generated, estimating mean bilateral breast dose and volumes receiving 5 (V5), 10 (V10), 15 (V15) and 20 Gy (V20). DVHs data were then incorporated into a cell initiation/inactivation/proliferation risk-model in order to estimate Excess Relative Risk (ERR) of radiation-induced BC at 20 years.
Results: Compared with IFRT30, INRT30 and INRT20 reduced mean breast dose by 57 and 71%; a similar reduction was shown for V5 (61 and 68%), V10 (60 and 81%), V15 (59 and 81%) and V20 (71 and 80%). When comparing mean ERR associated to IFRT30 (considered as reference) with INRT30 and then with INRT20, a reduction by 55% and by 69% was respectively estimated.
Discussion: Radiation-induced breast cancer is a major issue when treating young patients with combined modality treatment for HL. Our data show an important reduction of breast volumes receiving low, intermediate and high doses when INRT is employed; this reduction translates very well in a significant reduction of BC induction probability. A further reduction is possible when doses as low as 20 Gy are employed. Mini-radiotherapy approach after chemotherapy has to be prospectively validated, but preliminary findings suggest a minimal increase of BC risk.

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Bendamustine in relapsed or refractory indolent lymphoproliferative disorders: A single centre experience

E.L.M. Nga[1]*, S. Sadullah[1], C.C. Gomez[1], J.E.G. Braithwaite[1]. [1]*James Paget University Hospital NHS Foundation Trust, Department of Haematology, Great Yarmouth, United Kingdom*

Bendamustine, an alkylating agent with a unique mode of action has shown considerable activity in lymphoid malignancies, both as monotherapy and in combination with Rituximab. We treated 16 patients with relapsed/refractory indolent lymphoproliferative disorders (6 follicular lymphoma, 6 chronic lymphatic leukaemia, 2 small lymphocytic leukaemia, 2 mantle cell lymphoma) with Bendamustine monotherapy and in combination with Rituximab on a compassionate use programme from December 2008 to January 2010. The median age of patients was 70 years (range 53–87) and had previously received a median of

3 chemotherapy regimen (range 2–6). 11 of 12 evaluable patients have responded (2 complete response, 4 very good partial response, 5 partial response) corresponding to an overall response rate of 91.6%. Myelosuppresion was the major toxicity, however only 3 episodes of inpatient admission for neutropenic sepsis were seen with a total of 62 completed courses. We conclude that Bendamustine as monotherapy or in combination with Rituximab is a highly active regimen in the treatment of low grade lymphoproliferative disorders.

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Chemotherapy with short-term hyperglycemia in the treatment of refractory non-Hodgkin's lymphomas

Z. Olimova*, S. Navruzov, D. Pulatov, D. Abdurahkmanov, K. Tuydjanova. *National Research Center of Oncology, Medical Oncology Department, Tashkent, Uzbekistan*

Background: the aim of this study was to improve survival of patients with refractory non-Hodgkin's lymphomas. It is stated that under hyperglycemia antitumor affect of chemotherapeutic agents is considerably increased.
Patients and methods: One hundred thirty five eligible patients with refractory, follicular low-grade Non-Hodgkin's Lymphomas were treated using chemotherapy with short-term hyperglycemia. Patients were divided in two groups. First group – 75 patients received 6 course CHOEP+hyperglycemia, second group – 60 patients received 6 course of CHOEP regimen. Hyperglycemia is carried out by injections of 20% solution of glucose in quantity 1200 ml. Chemotherapeutic agents dissolved and entered into each bottle of glucose (400 ml), infusion of glucose is spent at the rate of 140–170 drops to a minute. Insulin is not entered into glucose solution.
Results: Best documented response in first group (75 patients) assessable patients were 22 of 75 (29.3%) complete remission, 33 of 75 (44%) partial remission, and 14 of 75 (18.6%) disease progressions. Six patients died of probable treatment-related causes. With a median follow-up of 58, the 5-year overall survival is 30%. Ten of 30 patients (33.3%) are currently alive and well. In second group (60 patients) were 12 of 60 (20%) complete remission, 20 of 60 (33.3%) partial remission, and 18 of 60 (30%) disease progressions. Ten patients died of probable-treatment related causes. With a median follow-up of 43, the 5-year overall survival is 21%. 6 of patients are currently alive and well.
Conclusions: regimen CHOEP+hyperglicemia are more effective, than the regimen CHOEP. Short-term hyperglycemia does not strengthen side-effects of anticancer agents.

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Clinical pattern of primary central nervous system lymphoma in a developing country

G. Narayanan[1]*, K. Rajasekharan[1], K. Nair[1], N. Sreejith[1], K. Ratheesan[2]. [1]*Regional Cancer Centre, Department of Medical Oncology, Trivandrum, India,* [2]*Regional Cancer Centre, Department of Radiation Oncology, Trivandrum, India*

Primary CNS lymphoma is a rare entity. We wish to present our experience with this rare tumor.
Aim: To study the pattern of presentation and treatment results of Primary CNS Lymphoma from a single institute in a developing country.
Material & Methods: Thirty patients with a diagnosis of Primary CNS lymphoma were treated at Regional Cancer Centre, Trivandrum, India during the period 2000–2007. The case records of these patients were studied in detail with respect to their presentation, treatment and survival.
Results: Of the 30 patients, there were 18 males and 12 females. Their age ranged from 26 years to 76 yrs with a median age of 50 years. The main presentation was with features of raised intracranial tension and hemiparesis. The symptoms were present for a median period of 3 months. The pathologic subtype was predominantly Diffuse large B cell NHL in 26 patients and Burkitt in 3 cases and diffuse small cell in 1. The main sites of involvement were frontal lobe, parietal lobe, frontopariental temporal lobe, cerebellum and thalamus. Sixteen patients had undergone decompression. Fifteen patients received chemotherapy, of which 9 received single agent High dose Methotrexate, 5 patients received De Angeles protocol. Radiotherapy was given in 23 patients and the dose ranged from 45–55 Gy. At 2 years 10 patients were alive disease free and the longest survival was 100 months.
Conclusions: Primary CNS lymphoma a rare tumor is mostly diffuse large B cell subtype and requires multimodality treatment for disease free survival.

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Efficacy of new short-term high intensive protocol BL-M-04 for adult patients with Burkitt lymphoma

E. Baryakh[1]*, S. Kravchenko[1], E. Zvonkov[1], A. Kremenetskaya[1], T. Obuhova[1], J. Popova[1], G. Klyasova[1], I. Kaplanskaya[1], A. Vorob[1]. [1]*Hematology Scientific Center Russian Academy of Medical Science, Hematology and Intensive Care Department, Moscow, Russia*

Burkitt lymphoma (BL) is the most aggressive B-cell lymphoid neoplasm, whose growth fraction approximates 100%, with specific chromosomal abnormalities (t(8;14)(q24;q32), rarely – t(2;8)(p12;q32), t(8;22)(q24;q11)). BL is one of the most chemosensitive lymphoid neoplasm. High intensive short-term alternating multiagent chemotherapy regimens are most effective in patients with BL. The major goal of our protocol was greater efficacy due to its intensification and shorter treatment duration. 44 previously untreated patients with BL were eligible for our study (they had specific translocations involving chromosome 8. 30 males and 14 females, mean age 29 years (15–62) participated in the study between August 2003 and December 2009. The treatment was based on high intensive protocol BL-M-04. Stage I, II, III, IV, B-acute lymphoblastic leukemia (L3) were diagnosed in 3, 5, 14, 6 and 16 patients respectively. The new treatment protocol is based on the modified NHL-BFM protocol for high risk patients with a reduced dose of methotrexate from 5 g/m^2 to 1.5 g/m^2. We decided to treat patients with BL in 4 courses of chemotherapy (2 induction and 2 consolidation) irrespective of the initial tumor mass. As BL is most sensitive to high dose methotrexate and cytarabine, we used these drugs in the induction phase to achieve to maximize the cytoreductive effect. Courses A and C were used to achieve remission. Doxorubicin was added to course A, and methotrexate to course C. Consolidation courses were similar to induction courses. Hence, we used A and C courses (without course B), intensified with course B drugs, the interval between the courses being 21 days. 40 patients (91%) achieved a complete remission (CR). 38 are alive in the first CR during 36 months (median 2–72 months). Six patients died: 2 patients died due to early relapse, 3 – chemotherapy related complication, 1 – progression. The 5-year disease-free survival was 95% with an overall survival of 86%.

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Emotional adjustment and outcome in advanced non Hodgkin lymphoma patients

P. Heras*, A. Hatzopoulos, M. Mihas, M. Hera, M. Mantzioros. *Hellenic Medical Society for the Study of Psychosomatic Problems, Athens, Greece*

The aim of this study was to examine the relationship between coping style and emotional adjustment in advanced non hodgkin lymphoma (NHL) patients.