(logrank p = 0.003), and 89% for IPS score = 0-1, 56% for IPS = 2-3, and 24% for IPS = 4-7 (logrank p < 0.001). Response to DICEP and relapse IPS were the only two factors that independently predicted PFS and OS in multivariate analysis. Of the 26 patients who relapsed following DICEP±HDM/ASCT, 7 (27%) achieved subsequent long-term PFS of ≥ 3 years using radiotherapy (n = 1), chemotherapy and radiotherapy (n = 2), or allogeneic SCT (n = 4).

DICEP-HDM/ASCT for relapsed/refractory Hodgkin lymphoma is associated with excellent stem cell mobilization capability and favourable PFS and OS outcomes. These results compare favourably to previously reported alternative regimens and require validation in a prospective multi-centre clinical trial.

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A NOVEL HIGH DOSE CHEMOTHERAPY STRATEGY WITH BENDAMUSTINE IN ADJUNCT TO ETOPOSIDE, CYTARABINE AND MELPHALAN (BEEAM) FOLLOWED BY AUTOLOGOUS STEM CELL RESCUE IS SAFE AND HIGHLY EFFECTIVE FOR THE TREATMENT OF RESISTANT/RELAPSED LYMPHOMA PATIENTS: A PHASE I-II STUDY ON 44 PATIENTS

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BEAM (Carmustine, etoposide, cytarabine, and melphalan) is the most used conditioning regimen before autologous stem cell transplant (ASCT) in lymphoma patients. However, relapse rate after transplant is still a matter of concern. Therefore, new regimens with a higher efficacy are particularly needed.

We designed a phase I-II study to evaluate the safety and the efficacy of increasing doses of Bendamustine for the conditioning regimen to ASCT for resistant/relapsed lymphoma patients. As a biological background, we performed in vitro experiments which showed the synergistic activity of bendamustine with etoposide, aracytin and melphalan in lymphoma cell lines.

Forty-four patients (median age 47 years) with resistant/relapsed non-Hodgkin (29) or Hodgkin (15) lymphoma were consecutively enrolled in the study. The new regimen consisted of increasing doses of Bendamustine coupled with fixed doses of Etoposide (200mg/m2/day on days -5 to -2), Cytarabine (400mg/m2 on days -5 to -2) and Melphalan (140 mg/m2 on day -1) (BeEAM regimen). The study was registered at EMEA with the EUDRACT no 2008-002736-15. The starting dose of Bendamustine was 160 mg/m^2/daily given on days -7 and -6, which was then escalated according to the Fibonacci's increment rule until the onset of severe adverse events and/or the attainment of the expected MTD, but not higher than 200 mg/m^2.

The administration of Bendamustine was safe in all the 3 cohorts of 3 patients. We then fixed the dose of Bendamustine 200 mg/m^2 as safe and effective for the Phase II study.

A median number of 5.68x10^{6}CD34$^+$/kg cells (range 2.4-15.5) collected from peripheral blood was reinfused to patients. All patients engrafted, with a median time to ANC > 0.5x10^9/l of 10 days. Median times to achieve a platelet count > 20x10^9/l and > 50x10^9/l were 13 and 16 days respectively. Twenty-two out of 44 patients presented a fever of unknown origin. All patients received G-CSF after transplant for a median time of 9 days (range: 8-25).

39/44 patients are evaluable for the response to treatment. After a median follow-up of 14 months from transplant, 32/39 patients are in complete remission, whereas 4/39 are in partial response. 3/39 patients relapsed after a median time of 3 months from transplant. Remarkably, 4/39 patients achieved the first complete remission after receiving the high-dose therapy with ASCT.

In conclusion, the new BeEAM regimen is safe and seems to have a high efficacy in heavily pretreated lymphoma patients.

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NORDIC MCL2 TRIAL OF 1ST-LINE INTENSIVE IMMUNOCHEMOTHERAPY AND AUTOLOGOUS STEM CELL TRANSPLANTATION IN MANTLE CELL LYMPHOMA: STILL ENCOURAGING RESULTS AFTER MEDIAN 5½ YEARS OBSERVATION TIME

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Mantle cell lymphoma (MCL) has a poor prognosis with a median survival of 5 years based on conventional immunochemotherapy. In spite of the high risk characteristics of the 160 patients of the Nordic MCL2 Trial of 1.-line intensive immunochemotherapy followed by BEAM and autologous stem cell transplantation (31% with high Ki-67 expression, 19% blastoid/pleomorphic), the first results based on three years median observation were encouraging, including no relapses after 5 years[1]. In the present update based on median 5.6 years observation, the 10-year overall survival (OS) is 58%. Late relapses have decreased the 10-year event-free survival (EFS) and response duration (RD) to 35% and 46%, respectively. An example of a late relapse was an isolated CNS relapse in a patient otherwise in persistent complete remission 9.5 years after initial treatment. The mantle cell lymphoma International prognostic index (MIPI)[2], previously found of prognostic value in our cohort[3], remained highly predictive of OS, EFS and RD. Particularly the MIPI-biological, incorporating Ki-67, identified 20% of the patients still relapse-free from 3.4 years to now 9 years posttransplant. A molecular marker was available in 71 of the 145 responding patients who completed treatment and had follow-up samples for minimal residual disease. Molecular response duration of less than one year posttransplant corresponded to a shorter clinical response duration (median 4.2 years) than molecular response duration > 1 year (median 9 years clinical response duration). In conclusion, the 58% 10-year survival of this high-risk cohort is still very encouraging, but late relapses do occur, warranting long-term control and trials of maintenance treatment in this disease.

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MINIMIZING THE COST OF CURRENT INEFFECTIVE MOBILIZATIONS: DOUBLING FILGRASTIM ON DAY 4 OF FILGRASTIM-ALONE MOBILIZATION FOR AUTOLOGOUS PERIPHERAL STEM CELL COLLECTION REDUCES THE USE OF PLERIXAFOR

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Background: Autologous stem cell mobilization with colony stimulating factors alone has a failure rate of approximately 20%. Plerixafor is a stem cell mobilizer effective in increasing the number of peripheral CD34 cells collected by hematopoetic progenitor cell apheresis (HPC-A) while reducing the number of HPC-A days in