

Syndrome (SS) and 3 patients with multifocal primary cutaneous anaplastic large cell lymphoma (pcALCL). The median follow-up was 21.5 (range: 4–60) months from the date of diagnosis. Adverse events were grade 1–2 peripheral neuropathy (40%) and gastro-intestinal disturbances (10%). Peripheral neuropathy resolved by discontinuation of therapy. All these pcALCL patients achieved complete remission after 5 cycle of BV. One patient with MF had progressive disease due to nodal involvement and one died of fungal pneumonia after 2 cycles of BV and could not be evaluated for disease response.

**Conclusion:** BV has proven efficacy in both CD30- expressing MF, pcALCL. Same as previous studies, CR could be achieved more frequently in pcALCL than MF in our study. BV is found significantly higher response rates compared to traditional agents like methotrexate or bexarotene and 75% of patients had undergone these therapies before BV. In summary, BV is a promising agent for relapsed refractory CTCL patients with durable remission.

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#### OP 08

### The prognostic impact of comorbidity, nutritional and performance status on patients with diffuse large B cell lymphoma

B. Saglam, M. Albayrak, A. Yıldız, P. Akyol, M. Tiglioglu, M. Aras\*, F. Yılmaz, S. Maral, H. Ozturk

University of Health Sciences, Diskapi Yildirim Beyazit Training and Research Hospital, Department of Hematology, Ankara, Turkey

**Objective:** The aim of the study was to investigate the impact of nutritional status, comorbidity and performance status on patients with diffuse large B cell lymphoma (DLBCL).

**Methodology:** A retrospective study was conducted on DLBCL patients who were diagnosed in our centre between 2009–2018. The study included a total of 112 patients. Demographic and disease characteristics and laboratory test results were recorded. Overall and progression free survival were measured from these data. The methods for the assessments are Charlson comorbidity index for comorbidity, albumin level for nutritional status and ECOG score for performance status.

**Results:** The average age of the patients was found to be  $62.63 \pm 15.16$  years. The ECOG score of 65 patients (69.1%) is in the range of 0–1. The mean follow-up time of the patients was determined to be  $25.24 \pm 25.11$  (months), and at the end of the follow-up period, 64 patients (57.1%) were found to be alive. The median of 5-year PFS was 13.2 months, and the 5-year OS was 59.8%. Those with CCI-A score  $<4$  and those with  $\geq 4$  were compared. PFS, OS and 5-year OS values of those with CCI-A  $>4$  were found to be significantly lower than those with CCI-A score  $\leq 4$  ( $p < 0.05$ ). As a result of the Cox-Regression (Backward: LR method) analysis, ECOG and albumin values were found to be independent risk factors for both OS and PFS ( $p < 0.05$ ).

**Conclusion:** This study demonstrated that CCI-A, ECOG and nutritional status are independent prognostic markers for DLBCL patients. Initial evaluation of these patients should

include all of these parameters which are easily available at the time of diagnosis.

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#### OP 09

### Can sarcopenia be a risk factor for bleomycin toxicity?

M. Koyuncu

Mersin University, Mersin, Turkey

**Objective:** Hodgkin Lymphoma (HL) constitutes 10 percent of lymphomas. It is one of the most curable malignancies with a response rate of around 85%. Most recent guidelines recommend ABVD (adriamycin, bleomycin, vinblastine, dacarbazine) regimen in the first-line treatment of classical HL. Epidemiological studies showed that around 20% of patients treated with bleomycin developed bleomycin pulmonary toxicity (BPT). Risk factors for BPT are under investigation by most lymphoma working groups. Some studies suggested that bleomycin dose could be a risk factor for BPT. Sarcopenia is defined as a syndrome characterized by the loss of muscle mass, strength, and performance. Recent studies suggested that psoas muscle indexes could be used to identify sarcopenic patients. We hypothesized that the same bleomycin dose especially in patients with muscle loss due to the subsequent chemotherapy cycles might be a risk factor BPT.

**Methodology:** A total of 48 patients with newly diagnosed classical HL were included in the study. All of the patients received at least 2 cycles of a standard dose of ABVD chemotherapy. Sarcopenia was assessed using the psoas muscle index (PMI), which was calculated using values measured on PET/CT images before ABVD chemotherapy and the following formula: cross-sectional area of the bilateral psoas muscle/height<sup>2</sup>. Patients were divided into two groups according to the PMI: the sarcopenia group ( $\leq 443 \text{ mm}^2/\text{m}^2$  for men and  $\leq 326 \text{ mm}^2/\text{m}^2$  for women) and the non-sarcopenia group ( $>443 \text{ mm}^2/\text{m}^2$  for men and  $>326 \text{ mm}^2/\text{m}^2$  for women). PMI was calculated both prior to the initial chemotherapy and after 2 cycles of ABVD. chemotherapy-related complications such as bleomycin toxicity, hospitalizations, the time course of neutropenia, and hospitalization due to the neutropenic fevers were recorded. Chi-square test and Mann Whitney U tests were used for statistical analyses. A  $p$ -value less than 0.05 were considered as statistically significant.

**Results:** 29 (60.4%) of the patients were male. 13 of 48 patients (27%) developed BPT after starting chemotherapy. Body Mass Index (BMI) status of these patients with BPT did not change after 2 cycles of ABVD. Mean psoas indexes prior to chemotherapy were  $581.36[\text{PLUSMN}]188.08$  in patients who did not have BPT and  $465.29[\text{PLUSMN}]149.64$  in patients with BPT ( $p = 0.052$ ). Mean psoas indexes after 2 cycles of ABVD were  $597.43[\text{PLUSMN}]207.38$  in patients who did not have BPT and  $400.46[\text{PLUSMN}]109.21$  ( $p < 0.001$ ). 11 of 13 patients with BPT had sarcopenia after 2 cycles of ABVD. There were no statistically significant association with stage, mortality status, time of neutropenia, relapsed disease, neutropenic fever episodes, and psoas muscle indexes.



**Conclusion:** Sarcopenia after 2 cycles of chemotherapy may be a risk factor for BPT. All patients with sarcopenia received same dose of bleomycin in this study. A significant relation between loss of muscle mass and BPT indicates that higher bleomycin doses in accordance with muscle mass may be a risk factor for BPT development. Dose reductions according to muscle mass can be more logical even if the BMI status of the patients remains the same after 2 cycles of chemotherapy. Randomized clinical trials are needed in this very important topic.

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## MYELOMA

### OP 10

#### Bendamustine-bortezomib-dexamethasone (BVD) in heavily pretreated multiple myeloma: old/new in novel agents' era

C. Cerchione<sup>1,\*</sup>, L. Catalano<sup>2</sup>, D. Nappi<sup>3</sup>, S. Rocco<sup>4</sup>, S. Palmieri<sup>4</sup>, A. Pareto<sup>2</sup>, F. Pane<sup>2</sup>, F. Ferrara<sup>4</sup>, G. Martinelli<sup>1</sup>

<sup>1</sup>Hematology Unit, Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori (IRST) IRCCS, Meldola, Italy

<sup>2</sup>Hematology Unit – AOU Federico II, Naples, Italy

<sup>3</sup>Department of Hematology & CBMT, Ospedale di Bolzano, Bolzano, Italy

<sup>4</sup>Hematology, A. O. R. N. Cardarelli, Naples, Italy

**Objective:** Bendamustine is an old bi-functional alkylating agent which has proved to be effective in relapsed, refractory and in new diagnosed Multiple Myeloma (MM).

**Case report:** Thus, aiming to provide further insights in this field, also in novel agents' era, we present here a retrospective, real-life analysis of patients with relapsed/refractory MM (rrMM), who had received salvage therapy with bendamustine in combination with bortezomib and dexamethasone (BVD).

**Methodology:** 81 patients (44 M/37 F), with rrMM, median age at diagnosis 59.4 years (r. 36–82), median age at start of treatment 63.6 years (r.37–86) treated with several lines of treatments (median 6, r. 2–11), every refractory to all the drugs previously received (also Bortezomib), received BVD (B 90 mg/sqm days 1,2; V 1.3 mg/sqm days 1,4,8,11, D 20 mg days 1,2,4,5,8,9,11,12, Pegfilgrastim day +4) every 28 days, until progression. All patients had previously received bortezomib-based and IMiDs-based treatments, and 32% (26/81) had also received radiotherapy. 69% (56/81) had undergone single or double autologous and three (2%) allogeneic stem cell transplant. All patients were relapsed and refractory to last therapies received before BVD.

**Results:** Bendamustine was well tolerated, with grade 3–4 transfusion-dependent anemia in 56% (46/81) of patients, and 43% (35/81) grade 3–4 neutropenia (no ospedalization was required, no septic shocks were observed). No severe extra-hematologic toxicity was observed, only grade 1 gastrointestinal side effect (nausea), treated by common antiemetic drugs. According to IMWG, ORR was 63% (51/81: 7 CR, 18 VGPR, 15 PR, 11 MR) with 11 PD and 19 patients in SD, which can be

considered as an impressive result in this subset of rrMM patients. In particular, for 11 patients, BVD was, after having achieved at least a PR, a bridge to second auSCT, and for two patients a bridge to alloSCT. Eight patients have surprisingly achieved a notable PR after failure of novel agents (i.e. Carfilzomib, Daratumumab and Pomalidomide). Median time to response was 1.3 months (r.1–3), median OS from diagnosis was 67.3 months (r.6–151), median OS from start of Bendamustine was 9.6 months (r.2–36).

**Conclusion:** The triplet Bendamustine-Bortezomib-Dexamethasone has shown significant efficacy in a particularly severe setting of patients, relapsed and refractory to all available therapeutic resources, and, in particular cases, it could be considered as a bridge to a second autologous or allogeneic SCT, also after failure of novel agents.

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### OP 11

#### Efficacy and safety of daratumumab with dexamethasone in patients with relapsed/refractory multiple myeloma and severe renal impairment: results of the phase 2 dare study

E. Terpos<sup>1,\*</sup>, A. Symeonidis<sup>2</sup>, S. Delimpasi<sup>3</sup>, E. Zamagni<sup>4</sup>, E. Katodritou<sup>5</sup>, E. Rivolti<sup>6</sup>, M. Kyrtonis<sup>7</sup>, D. Fotiou<sup>1</sup>, N. Kanellias<sup>1</sup>, M. Migkou<sup>1</sup>, M. Roussou<sup>1</sup>, M. Gavriatopoulou<sup>1</sup>, E. Hatjiharissi<sup>8</sup>, M. Cavo<sup>4</sup>, M. Dimopoulos<sup>1</sup>

<sup>1</sup>Department of Clinical Therapeutics, National and Kapodistrian University of Athens, School of Medicine, Athens, Greece

<sup>2</sup>Hematology Division, Department of Internal Medicine, University of Patras Medical School, Patras, Greece

<sup>3</sup>Department of Hematology and Bone Marrow Transplantation Unit, Evangelismos Hospital, Athens, Greece

<sup>4</sup>Seragnoli Institute of Hematology, Bologna University School of Medicine, Bologna, Italy

<sup>5</sup>Department of Hematology, Theagenio Cancer Hospital, Thessaloniki, Greece

<sup>6</sup>Azienda USL-IRCCS di Reggio Emilia, Reggio Emilia, Italy

<sup>7</sup>First Department of Propedeutic Internal Medicine, National and Kapodistrian University of Athens, School of Medicine, Athens, Greece

<sup>8</sup>First Department of Internal Medicine, Aristotle University of Thessaloniki, School of Medicine, AHEPA University Hospital, Thessaloniki, Greece

**Objective:** Patients (pts) with multiple myeloma (MM) and severe renal impairment (RI) have poorer overall survival. Daratumumab (DARA), an IgG1κ human monoclonal antibody that targets CD38, has shown efficacy and a favorable safety profile in pts with relapsed or refractory MM (RRMM). Moreover, in population pharmacokinetic analyses, no clinically important differences in exposure to DARA were observed

