diseases especially in elderly people with anemia. Also, they can be used as an important part of the daily routine complete blood count.

PB1913

LOW LEVELS OF CD10, CD11B, CD13, AND CD16 EXPRESSION IN THE PERIPHERAL BLOOD NEUTROPHILS FROM PATIENTS WITH LOWER RISK MYELODYSPLASTIC SYNDROMES

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Background: Myelodysplastic syndromes (MDS) are a heterogeneous group of hematologic neoplasms characterized by morphologic dysplasia, aberrant hematopoiesis and peripheral blood (PB) cytopenias, and an increased probability of transformation to acute leukemia. Diagnosis of MDS relies on well-defined cytological and cytogenetic criteria but is challenging in a significant number of patients. The detection of abnormal maturation patterns and aberrant antigen expression in the bone marrow (BM) cells has been extensively studied by flow cytometry (FC) and is now considered a promising tool to improve MDS diagnostics. However, the value of immunophenotyping the PB cells from patients with MDS has been largely ignored. Having regard to accessibility of PB samples, it would be useful to establish FC criteria for the diagnosis of MDS in the PB.
Aims: To evaluate the levels of CD10, CD11b, CD13, CD15, CD16 and CD45 expression in PB neutrophils (PB-Neut) from patients with lower risk MDS (LR-MDS), as compared to normal individuals (NI).
Methods: Fourteen patients with previously diagnosed LR-MDS (8 males, median age 76 years), and an equal number of NI (blood donors, 8 males, median age 55 years) were studied. Patients who were being treated with myeloid growth factors were excluded, as did patients with active infections and other concomitant neoplasms. The median time from the diagnosis was 7.6 years, ranging from 0.5 to 12.6 years. Seven patients had refractory anemia with ringed sideroblasts (RARS), 4 patients had refractory cytopenias with unilineage dysplasia (RCUD), and 3 patients had refractory cytopenias with multilineage dysplasia (RCMD). Eight patients had low IPSS risk and 6 patients had intermediate 1 IPSS risk. The median PB-Neut count was of 2590/mm3 (365 to 6945), in LR-MDS (<1500/mm3 in 4 cases) and 4181/mm3 (3083 to 8633), in NI (no cases with <1500/mm3). PB samples were collected into EDTA-K3 containing tubes. Cell immunophenotyping was performed by 8-color FC using fluorochrome conjugated monoclonal antibodies with different specificities (CD15-FITC, CD13-PE, CD34-PerCPCy5.5, CD10-PC7, CD11b-APC, CD14-APC-H7, CD16-V450, CD45-KO), and a whole blood stain-lyse-and-then wash method (FACSLysing, Becton Dickinson–BD). A normal PB sample was run in parallel with each patient PB sample. Sample acquisition was performed in a FACSCanto II flow cytometer (BD), calibrated according to the Euroflow SOP. Data analysis was done with Infinicyt (Cytognos). Results are expressed as median, minimum and maximum values of the median fluorescence intensity observed for each marker. P values <0.05 were considered statistically significant (Mann-Whitney U test).
Results: PB-Neut from patients with LR-MDS had significantly lower FSC (p=0.008) and SSC (p<0.001), as compared to those of NI. In addition, the levels of CD10 and CD11b (p<0.001 in both cases), CD16 (p=0.002) and CD13 (p=0.022) expression in PB-Neut from patients with LR-MDS were significantly decreased in patients with LR-MDS, as compared with NI. No significant differences were observed for CD15 and CD45 expression (p>0.05).
Summary/Conclusions: PB-Neut immunophenotyping may provide useful information for the diagnosis of MDS, as a complement to cytomorphology. Each center should establish its own normal reference values, on the basis of monoclonal antibodies (clones, fluorochromes) and experimental conditions used. In addition, should be given special attention to the conditions of calibration and stability of the cytometer.

Myelodysplastic syndromes – Clinical

PB1914

MULTIDISCIPLINARY EVALUATION AT BASELINE AND DURING TREATMENT IMPROVES THE RATE OF COMPLIANCE AND EFFICACY OF DEFERASIROX IN ELDERLY MYELODYSPLASTIC PATIENTS

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Background: Myelodysplastic syndromes (MDS) are one of the most common hematologic malignancies, the median age at diagnosis is 75 years in most of the series; therefore it can be considered a disease of the elderly patients (pts). Red blood cell transfusion (RBCT) is the main stone of supportive care and a cardinal option to keep patients alive while waiting for effects of specific therapeutic strategies. Transfusion dependency and the consequence iron overload (IOL) has been identified as an independent factor associated with decreased survival. The most important guidelines recommend to start iron chelation therapy (ICT) in all MDS pts with low- and INT1 risk disease with life expectancy >1 year, who have elevated serum ferritin (SF) up to 1000 mcg/L or evidence of iron overload and/or received at least 20 RBCT.
Aims: The aim of the study was to assess the effectiveness of (ICT) in relation of dosing and right management of adverse events (AE) particularly the renal injury. We also evaluate hematological response.
Methods: The safety and the efficacy of DFX were examined in a retrospective multicenter observational study of transfusion MDS patients with International Prognostic Score System (IPSS) low- or INT-1 risk. We included all pts treated with DFX up to 12 months, divided into two groups: the first one (group A) not under multidisciplinary assessment and the second group (group B) with pts under multidisciplinary control by hematologist, Internist, Nephrologist and Immune-hematologist. All pts received DFX at starting dose of 10 mg/kg/day increased up to 30mg/kg/day according to transfusion regimen, SF, IOL, and tolerance.
Results: We evaluated 44 MDS pts (13 female, 31 male); 26 belonging to the first group and 18 to the second group. The mean age was respectively 74.3±9.0 and 77.9±5.5. The ECOG 0-1 was 84.6% and 83.3%, respectively. The median of RBCT prior starting DFX was 20 (range 3-60) in the first group and 13 (4-150) in second group. The median serum ferritin level at baseline was 1125.5 ng/mL (388-2099) and 1317.0 ng/mL (160-3018), respectively. Serum ferritin level decreased at least of 20% as follows: in 29% of pts of first group and in 31% of second group at 3 months, in 17% and 36%, respectively, at 6 months. At 12 months percentages were 22% and 58%, respectively (p=0.06). The drug related AE was evaluated by the Common Terminology Criteria for Adverse Events (CTCAE version 4.02). The SAE occurred in 11% at 3 months, 29% at 6 months and 16% at 12 months. The most Common AE were diarrhea and serum creatinine increase. The rate of drop out after renal AE was respectively 0% and 10%. The positive hematological response in overall pts was observed in 16% at 6 months and 20% at 6 months.
Summary/Conclusions: Un appropriate multidisciplinary assessment of the pre-existing or concomitant comorbidities, the evaluation of the home therapy and of the possible interaction with DFX, a vigilance in co-administration with nephrotoxic drugs may represent strategies to improve the safety and the adherence to ICT and thus the effectiveness. Early starting therapy with DFX at lower doses, maintaining the same dose for the first months avoiding rapid iron depletion, regular clinical and laboratory monitoring appears essential to identify early treatable renal and potentially renal injury avoiding serious adverse effects without necessarily interrupting DFX therapy.

PB1915

PEPTIDE VACCINATION AGAINST CANCER TESTIS ANTIGENS IN COMBINATION WITH AZACITIDINE FOR PATIENTS WITH MYELODYSPLASTIC SYNDROME AND ACUTE MYELOID LEUKEMIA: AN ONGOING PHASE I STUDY

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Background: Myelodysplastic Syndrome (MDS) is a clonal disorder and characterized by increasing bone marrow failure due to accumulation of genetic and epigenetic changes in hematopoietic stem cells. Patients with high-risk