

tological improvement (HI) during iron chelation therapy (ICT) was first pointed out more than twenty years ago. This phenomenon seems to be more frequent after introduction of Deferasirox. The most simple test assessing iron overload is serum ferritin concentration.

**Aims:** Assessment of hyperferritinemia incidence in MDS patients at the moment of MDS diagnosis, and correlation between ferritin level and AML transformation in patients diagnosed with MDS.

**Methods:** The retrospective data collection from a single center experience (Department of Hematology County Hospital, Timisoara, Romania) between December 2003 and December 2012 included 121 patients (68 men and 53 women) with MDS. All the patients had complete blood count and serum ferritin level, and complete follow-up data.

**Results:** Ferritin level above 1000 ng/mL was found in 38 patients (31%) (Group 1) and ferritin level  $\leq$ 1000 ng/mL in 83 patients (69%) (Group 2). Most patients with significant hyperferritinemia, were RBC transfusion dependent (81% of patients). Among patients with ferritin level  $\leq$ 1000 ng/mL, 38% were RBC transfusion dependent. Serum hemoglobin concentration was lower in Group 1 patients in comparison with Group 2 patients (7.5 g/dL vs 9.4 g/dL,  $P < 0.001$ ). The most frequent MDS subtype in Group 1, were patients with refractory anemia (RA) (30%), compared with patients with ferritin  $\leq$ 1000 ng/mL (15%) ( $P < 0.04$ ). According to IPSS score, there were no differences between studied groups. Median follow up was 12 months. There was an improved overall survival (OS) in RBC transfusion independent patients compared to RBC transfusion dependent patients, but mean OS was not significantly statistically different in studied groups. No correlation was found between ferritin level and time to AML transformation.

**Summary and Conclusions:** Hyperferritinemia  $>1000$  ng/mL does not influence survival and time to AML transformation in MDS patients. The most frequent MDS subtype in patients with ferritin level  $>1000$  ng/mL was MDS RA. Among patients with ferritin level  $>1000$  ng/mL, 81% were RBC dependent.

### PB1830

#### EPIDEMIOLOGICAL, CLINICAL, THERAPEUTIC AND PROGNOSTIC FEATURES OF MYELODYSPLASTIC SYNDROME IN FARHAT HACHED HOSPITAL SOUSSE TUNISIA.

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**Background:** The myelodysplastic syndrome (MDS) is a frequent entity in hematology. The clinical manifestations are characterized mainly by hemorrhage, anemia or infection. An early diagnosis is essential in order to initiate an appropriate management to improve the prognosis of this affection.

**Aims:** The aim of our study is to report the epidemiological, clinical and therapeutic features of patients with MDS.

**Methods:** This retrospective analysis included 114 patients with MDS who were treated and followed between 2005 and 2013.

**Results:** The sex ratio was 1. The median age was 71 years with a range from 11 to 99 years. Three patients had a family history of hematological diseases, and two had a personal history of neoplasia treated with chemotherapy and radiotherapy. The circumstances of discovery were an anemic syndrome, hemorrhagic syndrome and hemorrhagic syndrome in 68.7%, 5.2% and 2.6% of cases, respectively. The blood count showed anemia in 89.5% with VGM  $>100$  fL in 48.7% of cases, thrombocytopenia in 61.4% of cases, and leukopenia in 24.3% of cases. The myelogram showed dyserythropoiesis, dysgranulopoiesis, dysmegacaryopoiesis in 44.3%, 65.2% and 44.3% of cases, respectively. The karyotype was normal in 75.4% and abnormal in the remaining cases. According to the latest WHO classification, refractory anemia, sideroblastic anemia, refractory anemia with excess blasts, refractory anemia with excess blasts type 2, 5q- syndrome, refractory cytopenia with multi line and unclassifiable in 26.4%, 7%, 22.4%, 20%, 1.7%, 2.8%, and 20%, respectively. According to the IPSS, patients were classified very low risk, low risk, intermediate risk, high risk and very high risk in 10%, 36%, 30%, 17% and 7%, respectively. The management was symptomatic with red blood cell transfusions in 66% of cases, platelet transfusion in 56% of cases. The MDS was stable in 51% of cases and transformed into acute myeloid leukemia (AML) in 12, 3% of cases and only 5.26% of patients received chemotherapy. Only one patient aged 30 years was underwent allograft of hematopoietic stem cell transplantation and two patients received revidem. The overall survival at 2 years was 59% and 48% at 5 years.

**Summary and Conclusions:** Specific treatment for the kind of MDS should be started early in order to improve the management and prognosis of these patients.

### PB1831

#### A MULTICENTRIC STUDY TO EVALUATE THE EFFICACY OF EPOIETIN ZETA (BIOSIMILAR OF EPO ALPHA) IN LOW RISK MYELODYSPLASTIC PATIENTS

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**Background:** Erythropoietin (EPO) is a valuable option in the treatment of low risk myelodysplastic syndrome (MDS). Since the expiration of EPO alpha patent, epoetin biosimilars are becoming an increasingly important therapeutic option as anti-anemic drugs. Clinical efficacy and safety of biosimilar EPOs have been demonstrated in renal failure and chemotherapy anemias, but not in the treatment of myelodysplastic syndrome (MDS) patients.

**Aims:** Our study was designed to evaluate safety and efficacy of erythropoietin zeta (Retacrit, Hospira), a biosimilar of EPO alpha, to treat anemia of low risk MDS, such as low and intermediate-1 (Int-1) patients according to International Prognostic Scoring System (IPSS).

**Methods:** We collected data from 32 MDS patients (14 males, 18 females), aged 58-84 (median 76.5), treated with EPO zeta in Sicily. According to WHO classification, 15 out of 32 subjects were diagnosed as refractory anemia (RA), 13/32 as refractory cytopenias with multilineage dysplasia (RCMD) and 4/32 as refractory anemias with excess blasts-1 (RAEB-1, bone marrow blasts  $<10\%$ ). Considering cytogenetic subgroups, karyotype was favourable in 28 out of 32 patients while was intermediate in the remaining 4. According to IPSS risk stratification, 17/32 patients were classified in the low risk group and 15/32 in the Int-1. Four patients were transfusion dependent before anti-anemia treatment with EPO. To start EPO treatment: 1) Hemoglobin (Hb) had to be below 10 g/dl; 2) Serum iron, folate and B12 vitamin had to be in the normal range or corrected before therapy onset; 3) the maximum allowed transfusional need was of 3 units of packed red blood cells (PRBC) per month in the 90 preceding days; 4) serum EPO levels had to be below 500 U/L. Patients were treated with EPO zeta, 40,000 U s.c./week. After 8 weeks, whether there was no or suboptimal response (raise in Hb of less than 1.5 g/dl and/or no transfusion independence), EPO dose was raised to 80,000 U s.c./week. Treatment was continued for 24 weeks.

**Results:** Patients were considered as responders either when Hb levels raised of at least 1.5 g/dl from basal levels (and this data had to be confirmed in two consecutive evaluations) or when there was at least a 50% reduction of the transfusional needs as evaluated before starting EPO. Responders were 23 out of 32 patients (71.9%); for 9/23 responders (39%) EPO dose had to be raised to 80,000 U/week to obtain the best results. No side effects greater than G1 according to WHO were reported in our cohort of patients during the 24 weeks treatment period.

**Summary and Conclusions:** In our series, efficacy of EPO zeta in low risk MDS patients was consistent with that reported in the literature using the c'ig-inator EPO alpha in similar patient populations. Larger prospective randomized studies comparing originator and biosimilar EPOs will provide a definitive answer. However, biosimilar EPO zeta seems to be a good option to treat anemia in low risk MDS, thus saving resources considered its favourable pharmacoeconomic profile.

### PB1832

#### MANAGEMENT OF MYELODYSPLASTIC SYNDROMES: EXPERIENCE OF MILITARIAN HOSPITAL OF RABAT MOROCCO

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**Background:** Myelodysplastic syndromes (MDS) are a disorder of hematopoietic stem cell that affects essentially old population.

**Aims:** In this study we aim to show characteristics of management of MDS in our department and give a small example about Moroccan way to treat them with a few resources.

**Methods:** This is a retrospective study including all patients managed in our training for MDS since 2006 to February 2015.

**Results:** A total of 78 patients were included. The median age was 75.94 years; the rate of men was more likely higher than women (M/F) of 1.7. At diagnosis, the international prognosis scoring system (IPSS) was calculated for only 85, 89% (67 patients), 41.79% (28 patients) had low risk, 35.82% (24 patients) had intermediate 1 IPSS, 14.92% (10 patients) intermediate 2, just five patients had a high risk with range of 7%. Revised IPSS (R-IPSS) was also calculated for only 61 patients (78%), 9.8% had a very low R-IPSS, 44.26% had low risk, 29.5% had intermediate risk, 16.4% patients had high (9%) and very high (6.55%) risk. Concerning management, we decided to wait and see for 41% of patients, 34.6% needed by Erythropoietin was prescribed for 28% of our patients, 21.7% needed by azacitidine, three of our patients had Hydroxyurea, one of them had stem cell transplantation. Overall Follow up is about 42 months. The overall survival rate was 77, 78% at 2 years, and 44, 44% at 5 years.

**Summary and Conclusions:** Despite our few resources, our results are the same of most publications concerning survivals in MDS.