

HIPERFERRITINEMIA IN MYELODISPLASTIC SYNDROME(MSD) PATIENTS. CORELATION WITH EVOLUTION AND SURVIVAL.

Mihai Ionita, Ioana Ionita, Maria Cheveresan, Despina Calamar, Claudiu Ionita, Dacian Oros, Ovidiu Potre-Onocu, Cristina Sorica, Hortensia Ionita.

Hematology, University of Medicine and Pharmacy
“Victor Babes” Timisoara, Romania

Background. Most myelodysplastic (MDS) patients have anemia and many of them require red blood cells (RBC) transfusions leading to iron overload. Hematological improvement during iron chelation therapy 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 evolution an survival in patients diagnosed with MDS.

Methods. The retrospective data collection from a single center experience (Department of Hematology County Hospital, Timisoara, Romania) between January 2005 and December 2014 included 131 patients (73men and 58 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 45 patients (31%) (Group 1) and ferritin level ≤ 1000 ng/mL in 86 patients (69%) (Group 2). Most patients with significant hiperferritinemia, were RBC transfusion dependent (78% of patients). Among patients with ferritin level ≤ 1000 ng/mL, 36% were RBC transfusion dependent. Serum hemoglobin concentration was lower in Group 1 patients in comparison with Group 2 patients (7,3 g/dL vs 9,6 g/dL, $p < 0,001$). The most frequent MDS subtype in Group 1, were patients with refractory anemia (RA) (31%), compared with patients with ferritin ≤ 1000 ng/mL - 14% ($p < 0,04$). According to IPSS score, there were no differences between studied groups. Median follow up was 14 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 acute myeloid leukemia(AML) transformation.

Conclusions. Hiperferritinemia > 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.