EVALUATING THE EFFICACY OF CHELATION THERAPY. STUDY ON A GROUP OF PATIENTS FROM NORD-WEST OF ROMANIA.

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Background: Chelation therapy is recommended for transfused patients that have an increased serum ferritin level (over 1000 microg/l). Deferasirox has shown efficacy and safety in maintaining or reducing body iron (assessed by liver iron concentration and serum ferritin). Patients' adherence to Deferasirox treatment was superior to others chelator drugs because it is administrared per oral. The goals of our study is to analyze the results of Deferasirox treatment of a group of adult patients diagnosed and treated in Hematology Departments of Nord-West Romanian hospitals (Cluj, Maramures, Satu-Mare and Salaj Counties).
Methods: We have done a retrospective, transversal study including all the patients with myelodysplastic syndromes (MDS), thalassemia and other anemias that received blood transfusion and chelator treatment. Data collected: profile of serum ferritine during deferasirox treatment, reasons for treatment discontinuating, evaluating adverse effects of Deferasirox. We created a data collection sheet that included: demographics, information about patients' disease, serum ferritine level at start of the treatment and during treatment, evaluation of commorbidities that could increase serum ferritine level, number of blood transfusion before and after starting the treatment, Deferasirox dose and data about dose modification, adverse effects of the treatment. We studied cardiac and liver hemochromatosis, too (if medical information available).
Results: We included in the study 35 patients treated with Deferasirox in the NW region of Romania. The diagnosis included MDS, thalassemia and other anemias. Ages: 55-98 years. MDS patients were treated with erythropoietin, low dose chemotherapy, epigenetic treatment, blood transfusions and bethatalasemic patients were transfused. The baseline value of serum ferritine was between 1075 and 6187 microg/l (median- 3631 and mean- 2321). Deferasirox dose that was administered to the patient was 20-30 mg/kg. There was a significant reduction in serum feritine from baseline for all the patients. We identified six cases of treatment discontinuation. Digestive adverse events appeared in three cases (two cases of diarrhea and one case of digestive hemorrhagic episode) and Deferasirox was restarted after treating the adverse effect. In three cases, treatment was temporarily stopped because low ferritin level (under 500 microg/l). Packed red blood cell transfusions were administered after starting Deferasirox treatment (0-3 units/months, median- 1.5 units/months, mean 1.3 units/months). Two patients died during Deferasirox treatment because of main disease or its complications. We cannot present any conclusions about cardiac and liver hemochromatosis at the start of the treatment or during the treatment because of the leak of data in patients' files.
Conclusions: Analyzing our small group of 35 patient, serum feritine levels decresed after Deferasirox treatment, which proves the efficacy of the drug. Adverse reactions that determined a temporary stop of the treatment were mild/medium short time digestive reactions (diarrhea and digestive bleeding), so we can consider the chelator