JAK INHIBITOR THERAPY (RUXOLITINIB) IN IDIOPATHIC OSTEOMYELOFIBROSIS - NEW HOPE ? THE EXPERIENCE OF THE HEMATOLOGY CLINIC- IRO IASI

A.Merticariu[1], R. Fatu[1], G.Butura[1], E.Ghiata[1], A.Dascalu[1], G. Dorohoi[1], C.Danaila[1,2], C. Burcoveanu[1], A. Dascalescu[1,2]
1-Regional Institute of Oncology Iasi
2-University of Medicine and Pharmacy "Gr.T.Popa" Iasi

Idiopathic osteomyelofibrosis (IMF) is a hematopoietic clonal stem cell disease characterized by: anemia, splenomegaly and systemic manifestations. The relationship between alteration of the JAK - STAT signal transduction and the signs and symptoms of IMF is clearly established. Classic therapies administered to date in patients with IMF had modest results. The appearance of JAK inhibitor therapy is considered a new therapeutic hope for patients with this condition.
The purpose of our study is to evaluate the efficacy and tolerance of JAK inhibitor therapy in patients diagnosed with primitive and secondary osteomyelofibrosis.
Material and Methods: We evaluated a group of 17 patients diagnosed with idiopathic osteomyelofibrosis who initiated treatment with Ruxolitinib in the period August 2014 - May 2015 in IRO Hematology Iasi. In all patients we analyzed clinical and biological parameters at 3 stages: in the moment of the diagnosis, at initiation of the therapy and after 3 months of treatment.
Results: The average age of our patients at the initiation of therapy with Ruxolitinib was 61years old, the majority being diagnosed with primitive osteoyelofibrosis (76%) and only 4 patients with secondary osteomyelofibrosis. Therapeutic response assessment was performed by measuring spleen size at diagnosis and after 3 months of treatment; in some patients, also when reaching 6 months of therapy. We found spleen decreasing with at least 2cm in 85% patients comparing to the initial evaluating dimensions. In 2 patients we observed progressive evolution of disease under treatment trough spleen increasing. In 70 % of patients was noted hemoglobin decreasing by at least 2 g / dl comparing to the initial value, and in 50 % patients increased transfusion requirements. In a number of 3 patients severe infectious events in context of GRD III -IV neutropenia WHO occurred, in 1 case being necessary to stop therapy. In 1 patient we noted the combination of renal failure and hepatic cytolysis, so it required the adjustment of the dose of Ruxolitinib. 4 patients (23%) presented thrombocytopenia GRD III WHO, which also demanded a dose adjustment.
Conclusions: Treatment with Ruxolitinib was effective in most patients diagnosed with osteomyelofibrosis from our group. There was noted decreasing spleen size, but also the presence of adverse effects that needed dose adjustment and closely monitoring treatment intolerance.