

THE IMPORTANCE OF CYTOGENETICS IN MANAGING THE PATIENTS WITH MYELODISPLASTIC SYNDROMES.

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Myelodysplastic syndromes are acquired clonal stem cell disorders characterized by ineffective hematopoiesis involving one or more myeloid cells and high risk to progression to acute leukemias. The current diagnostic includes peripheral blood and bone marrow morphology, bone marrow biopsy and cytogenetics. Clonal cytogenetic abnormalities are observed in 40-60% of patients with MDS. In 1997 was defined International Prognostic Scoring System (IPSS) based on the number of peripheral cytopenias, bone marrow blasts percentage and karyotype. This score is able to classify patients into four risk groups, allowing the overall survival and risk of leukemia evolution. We studied 54 patients diagnosed with myelodysplastic syndromes according to the 2001 WHO classification between 2004-2012. Thirty three patients with low and intermediate-1 risk were included in EUMDS-Registry (4 from Brasov Hospital, 11 from Coltea Clinical Hospital, 18 from Fundeni Clinical Institute). Some of these patients had bone marrow morphology and cytogenetics performed every other 6 months. Cytogenetic analyses were performed at Fundeni Clinical Institute and they were successfully performed on 45 patients (83,3%), revealing clonal abnormalities in 22 patients (40,7%). Some of the patients with high risk presented rare abnormalities and represented some problems regarding therapeutical decision. The authors want to emphasize the role of the cytogenetics as prognostic factor which influences the therapeutic decision, especially in high-risk MDS forms. Moreover, this analyze is important when we have to make a decision regarding the BMT, which is the only curative treatment..