INTEGRATED APPROACH OF PATIENTS WITH ACUTE LEUKEMIA FROM FUNDENI CLINICAL INSTITUTE HEMATOLOGY AND BONE MARROW TRANSPLANT CENTER – EXPERIENCE OF THE LAST TWO YEARS.

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The identification of patients with acute leukemia who needs allogeneic transplantation is made using an integrated risk profile that incorporates cytogenetics exam, molecular genetic data and asseement of clinical response. Other factors influencing therapeutic decisions are: patient's age, comorbidities, performance status. Allogeneic hematopoietic stem-cell transplantation (HSCT) is a potentially curative treatment of acute leukemia, but it is necessary to evaluate the individual patient's risks for relapse and nonrelapse mortality (NRM). The intensity of conditioning chemotherapy regimen used has been shown to influence the disease-free survival.
In this presentation we have included patients with acute leukemia who were diagnosed and treated in our center from 2013 until june 2015. Patients were stratified according to age (<59 vs >59 years) and disease risk category. For 29 patients (16 with acute myeloid leukemia and 13 with acute lymphoblastic leukemia) who underwent allogeneic stem cell transplant in our center, we have proposed to assess the relationship between overall survival (OS)/leukemia-free survival after HSCT and the following parameters: time from diagnosis to stem cell transplant, intensity of conditioning regimen, post-transplant complications (i.e. acute/chronic graft-versus-host disease (GVHD)), time to engraftment, type of donor (unrelated vs. related donor) and chimerism. Most patients received a standard myeloabaltive conditioning regimen (MAC) and the most common post-transplant complication was bacterial/viral infection. At the time of presentation, 62% of these patients are alive.
This presentation highlights some very important issues for diagnosis and treatment of acute leukemia: the interval from diagnosis to allogeneic transplant, role of MRD monitoring before HCT, differences between a reduced intensity conditioning (RIC) regimen and standard myeloablative conditioning regimen (MAC).

Keywords: Acute myeloid leukemia, Allogeneic hematopoietic cell transplantation, Reduced intensity conditioning, Myeloablative conditioning.