largely overlaps with previously described swALL. CLL-1 seems to be a sensitive marker for identification of swALL. Transcriptomic profile of transdifferentiated monocytoid cells differ from that of healthy monocytes, and residual expression of B cell genes speaks for true transdifferentiation rather than for clone independence.
Supported by Ministry of Health of the Czech Republic, grant nr. 15-28525A, by Ministry of Education, Youth and Sports NPU I nr.LO1604 and by UNCE 204012.

CT-2

MESENCHYMAL STROMAL CELLS FOR STEROID-REFRACTORY GvHD – LABORATORY RESPONSE DURING A CLINICAL TRIAL

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Mesenchymal stromal cells (MSC) are tested in many studies dealing with their regenerative or immunomodulatory potential. In our clinical trial we use their ability to reduce the symptoms of a steroid-refractory graft versus host disease (GVHD) which negatively affects quality of life after allogeneic stem cells transplant.
MSC were applied for the treatment of patients with GVHD nonresponding to standard therapy (14 acute and 14 chronic GVHD). A basic lymphocyte´s subsets and dendritic cells (key players in GVHD pathology) were measured before application and 14-30-60-100-180 days after treatment. The peripheral blood samples were stained with the panel of antibodies for detection of B-cells, NK cells, T-cells (Tregs; Th1/Th2/Th17; naïve/memory subsets), dendritic cells and measured on BD FACSCanto II flow cytometer. The percentage representation was evaluated with FlowJo software and the absolute counts of the individual subsets were calculated using flow cytometry and haematology analyser.
The day+100 response evaluation showed the reduction of corticosteroids dose in all aGVHD pts. (to 17% of the starting dose) and in 83% chGVHD pts. (to 56%). The majority of lymphocytes subsets did not show any typical trend correlating with GVHD severity. Surprisingly, we detected Tregs decrease in both groups without changes in naïve vs memory portion. B cells involved mainly in cGVHD decreased in this group. In contrast, NK cells playing a key role in aGVHD decreased in patients with this form of GVHD. Plasmacytoid dendritic cells increased in both group whereas myeloid cells grew only in aGVHD patients. Our results indicate the influence of MSC on activated NK cells in acute GVHD and B-cells in chronic GVHD. The increase of dendritic cells (used as a marker of GvHD severity in many studies) correlated with good response to MSC and can be used as a biomarker for evaluation of this experimental treatment.

The work was supported by grants Ministry of Health FNPL-00669806.