PRELIMINARY COMMUNICATION

INFLUENCE OF THALIDOMIDE ON Bcl2 EXPRESSION AND PROANGIOGENIC CYtokine LEVELS IN SHORT-TERM CULTURE OF PERIPHERAL BLOOD AND BONE MARROW MONONUCLEAR CELLS OF MULTIPLE MYELOMA PATIENTS

Anna Dmoszyńska1,*, Jacek Roliński2, Agnieszka Bojarska-Junak2, Joanna Mańko1, Dariusz Jawniak1, Adam Walter-Croneck1, Maria Soroka-Wojtaszko3, Marek Hus1

Haematology and Clinical Immunology Department, University School of Medicine, Jacekowskiego Sq. PL. 20-950 Lublin, Poland


Supernatants from short-term culture of peripheral blood and bone marrow mononuclear cells obtained from 22 multiple myeloma patients were used to measure the concentration of TNF-α, HGF, IL-6 and its soluble receptor (sIL-6R), VEGF and bFGF. Cells were cultured with or without thalidomide (THAL). We observed statistically significant decrease in TNF-α, HGF, IL-6, sIL-6R in supernatants from THAL cultures compared to cells cultured without THAL. Flow cytometry technique was applied to study the Bcl2 expression on CD 4, CD 8 and CD 138 positive cells. The statistically significant decrease in Bcl2 expression on myeloma cells (CD 138+ ) was observed both in PB and BM cultures. THAL could inhibit the plasma cell growth both by diminishing proangiogenic cytokines production and enhancing myeloma cell apoptosis.

Key words: multiple myeloma, thalidomide, Bcl2, proangiogenic cytokines

*correspondence; e-mail: dmoszann@free.med.pl