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PRELIMINARY COMMUNICATION

INFLUENCE OF THALIDOMIDE ON Bcl_2 EXPRESSION AND PROANGIOGENIC CYTOKINE LEVELS IN SHORT-TERM CULTURE OF PERIPHERAL BLOOD AND BONE MARROW MONONUCLEAR CELLS OF MULTIPLE MYELOMA PATIENTS

Anna Dmoszyńska[1, #], Jacek Roliński[2], Agnieszka Bojarska-Junak[2], Joanna Mańko[1], Dariusz Jawniak[1], Adam Walter-Croneck[1], Maria Soroka-Wojtaszko[1], Marek Hus[1]

Haematooncology[1] and Clinical Immunology Department[2], University School of Medicine, Jaczewskiego 8, PL 20-950 Lublin, Poland

Influence of thalidomide on Bcl_2 expression and proangiogenic cytokine levels in short-term culture of peripheral blood and bone marrow mononuclear cells of multiple myeloma patients A. DMOSZYŃSKA, J. ROLIŃSKI, A. BOJARSKA-JUNAK, J. MAŃKO, D. JAWNIAK, A. WALTER-CRONECK, M. SOROKA-WOJTASZKO, M. HUS. Pol. J. Pharmacol., 2001, 53, 709–713.

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 Bcl_2 expression on CD 4, CD 8 and CD 138 positive cells. The statistically significant decrease in Bcl_2 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, Bcl_2, proangiogenic cytokines*

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