PRELIMINARY COMMUNICATION

INFLUENCE OF LOVASTATIN ON BCL-2 AND BAX EXPRESSION BY PLASMA CELLS AND T LYMPHOCYTES IN SHORT-TERM CULTURES OF MULTIPLE MYELOMA BONE MARROW MONONUCLEAR CELLS

Anna Dmoszyńska¹, Monika Podhorecka¹, Jacek Rolinski², Maria Soroka-Wojtaszko¹

¹Department of Hemato-oncology and Bone Marrow Transplantation; ²Department of Clinical Immunology, University School of Medicine, Jacezowskiego 8, PL 20-950 Lublin, Poland


Lovastatin (LOV), until now largely used for the treatment of hypercholesterolemia is a new promising drug in multiple myeloma (MM), however, the precise mechanism of its antitumor activity is not clear yet. It is probable that this effect is mediated by down-regulation of BCL-2 expression. In this study, we analyzed BCL-2 and BAX expression in cells of MM patients exposed to LOV in short-term culture. The obtained results indicate an increase in susceptibility to apoptosis both in CD138+ malignant cells and CD8+ T lymphocytes. Interestingly, such a tendency was confirmed in vivo in MM patient subjected to 3 cycles of LOV therapy.

Key words: BCL-2, BAX, plasma cells, T lymphocytes, lovastatin, apoptosis