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Autophagy induction in peripheral blood T-lymphocytes of atopic asthma patients

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Abstract

Autophagy is a fundamental process that ensures the regulation of T-cell homeostasis. In case of apoptosis induction disruption in the cell it could be single mechanism of the cell death. Previously was shown inhibition of lymphocyte apoptosis in patients with bronchial asthma, so the main study of this work has focused on the study development process of autophagy in T-lymphocytes of patients with bronchial asthma. The article presents the main morphological changes in cells associated with activation of autophagy (formation autophagosome). In addition to morphological changes in lymphocytes, we have shown the expression of autophagy marker protein (LC3B). We found that in T-lymphocytes of patients with severe asthma are simultaneous activation of both autophagy and apoptosis, and autophagy is a stimulus to cell death.

Keywords

Apoptosis, Asthma, Autophagy, LC3B protein, T-lymphocytes