

# Ekspresja antygenu Fas i FasL na limfocytach T i B w przerosłych migdałkach gardłowych u dzieci chorych na wysiękowe zapalenie ucha

Expression Fas and FasL antigen protein of lymphocytes T and B in hypertrophied adenoid in children with otitis media with effusion

**Beata Żelazowska-Rutkowska, Jolanta Wysocka, Karol Ratomski, Bożena Skotnicka, Janusz Żak, Małgorzata Mrugacz**

## Summary

**Introduction.** Apoptosis of lymphocytes can be induced by different factors mainly however the activation of antigen Fas (CD95) and his ligand FasL (CD95L) route. Apoptosis induced by Fas-FasL has large significance in elimination of lymphocytes T in final phase immune response designate AICD (activation induced cell death). Lymphocytes B undergo apoptosis induced by Fas-FasL in germinal center, which has special meaning in elimination of cells about low specificity and weak affinity of receptor BCR ( B-cell antigen receptor). **Aim of study.** The aim of this study was evaluation of percentage of apoptotic lymphocytes and expression of Fas and FasL in CD4<sup>+</sup>, CD8<sup>+</sup>, CD19<sup>+</sup> lymphocytes in hypertrophied adenoid and hypertrophied adenoid and otitis media with effusion. **Methods.** CD4<sup>+</sup> Fas<sup>+</sup>, CD8<sup>+</sup>Fas<sup>+</sup> , CD19<sup>+</sup>Fas<sup>+</sup> CD4<sup>+</sup> FasL<sup>+</sup>, CD8<sup>+</sup>FasL<sup>+</sup>, CD19<sup>+</sup>FasL<sup>+</sup> cells subpopulation were identified using monoclonal antibodies and flow cytometry method. **Results.** The percentage of lymphocytes CD4<sup>+</sup> Fas<sup>+</sup>, CD8<sup>+</sup>Fas<sup>+</sup>, CD19<sup>+</sup>Fas<sup>+</sup> was higher in hypertrophied adenoid and otitis media with effusion compored to the control group. Their was no significant difference the percentage CD4<sup>+</sup> Fas<sup>+</sup>, CD8<sup>+</sup>Fas<sup>+</sup>, CD19<sup>+</sup>Fas<sup>+</sup> CD4<sup>+</sup> FasL<sup>+</sup>, CD8<sup>+</sup>FasL<sup>+</sup>, CD19<sup>+</sup>FasL<sup>+</sup> in hypertrophied adenoid and otitis media with effusion then the control group. The percentage of apoptotic lymphocytes was higher in hypertrophied adenoid and otitis media with effusion compored to the control group. **Conclusions.** The susceptibility the individual subpopulation of lymphocytes in hypertrophied adenoid seems to influence on change of relations of quantitative lymphocytes and upset the immunological function of tonsils which can influence on course otitis media with effusion at children.