

# Ocena odsetka limfocytów CD19<sup>+</sup>CD5<sup>+</sup> w przerosłych migdałkach gardłowych u dzieci chorych na wysiękowe zapalenie ucha środkowego

Evaluation of percentage of the CD19<sup>+</sup> CD5<sup>+</sup> lymphocytes in hypertrophied adenoids at children with otitis media with effusion

*Karol Ratomski, Bożena Skotnicka, Edwina Kasprzycka, Beata Żelazowska-Rutkowska, Jolanta Wysocka, Sławomir Anisimowicz*

## Summary

**Introduction.** Otitis media with effusion and hypertrophied adenoid are still common diseases in childhood. Adenoid has particular meaning to develop of immunological response to inflammations in upper respiratory inclusive middle ear. The origin CD19<sup>+</sup>CD5<sup>+</sup> B cells remains controversial. The differentiation response to ligation of CD5 resulting in apoptosis or proliferation lymphocytes. The aim of this study was compare the percentage of CD19<sup>+</sup>CD5<sup>+</sup> lymphocytes in hypertrophied adenoid tissue at children with otitis media with effusion to comparative group without inflammatory state in middle ear.

**Material and methods.** We tested 37 children in examine group with hypertrophied adenoid and otitis media with effusion (OME), and 32 children in comparative group only with hypertrophied adenoid (HA). We also divided both groups into two groups, above 5 and over 5 years old. We made the research by flow cytometry method. We used anty-CD19 and anty-CD5 monoclonal antibodies to examinations.

**Results.** In this study we showed significantly higher percentage of the CD19<sup>+</sup>CD5<sup>+</sup> lymphocytes at children with examined group (OME 22.12 ± 4.31%) than in comparative group (HA 19.16 ± 4.32%), p<0,04. Percentage of the subpopulation CD5<sup>+</sup> B cells was significantly higher (p < 0,02) at younger subgroup (21.55 ± 5.34%) than in older subgroup (18.24 ± 2.35%) of children with both groups (OME + HA). **Conclusions.** The significant higher percentage of B lymphocytes with expressions of CD5<sup>+</sup> receptor in hypertrophied adenoid tissue at children with otitis media with effusion are important to develop of early immunological response to inflammatory state in middle ear.