

Ekspresja cząsteczki adhezyjnej CD44 na subpopulacjach limfocytów przerosłych migdałków gardłowych dzieci chorych na wysiękowe zapalenie ucha

Expression of adhesion molecule CD44 on subpopulations of lymphocytes in hypertrophied adenoids in children with otitis media with effusion

Karol Ratomski, Beata Zelazowska-Rutkowska, Jolanta Wysocka, Bożena Skotnicka

Summary

Introduction: The CD44 on lymphocytes binding to its ligand hyaluronan can mediate primary adhesion (rolling interactions) of lymphocytes on high endothelial venules (HEV). This adhesion molecule plays an important role to maturation and proliferation of lymphocytes in the secondary lymphoid organs. CD44 has a crucial role in migrate of lymphocytes to inflammatory sites. **The aim** of this study was evaluation of the percentage and MFI (mean fluorescence intensity) of lymphocytes CD4+, CD8+, CD19+ with expression of surface adhesive molecule CD44 in hypertrophied adenoids in children with otitis media with effusion. **Material and methods:** 42 children with otitis media with effusion and 30 children with hypertrophied adenoids were tested. Children were also divided into two subgroups: young (below 5 years) and older children (above 5 years old). Expression of adhesion molecule CD28 on lymphocytes of adenoids tissue was estimated by flow cytometry method. **Results:** This study showed significantly higher percentage of lymphocytes CD19+CD44+ in children with otitis media with effusion (OME 87,83%) than in comparative group with hypertrophied adenoids (AH 85,61%). We did not find difference between OME and AH in mean fluorescence intensity of subpopulations lymphocytes T and B with expression CD44. **Conclusions:** Adhesion molecule CD44 is important for developing of effectors lymphocytes in hypertrophy adenoid. Increase percentage of lymphocytes CD19 with expression CD28, especially in older children confirms their participation in developing and forming of immunological response in otitis media with effusion.