Immunohistochemical Analysis Of Retraction Pocket Pars Tensa Of Tympanic Membrane In Children

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Study design: a prospective study analysing 31 surgically removed retraction pockets.

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Methods: Retraction pockets processed by a standard process for immunohistochemical analysis. The observed findings were specified using antibodies CD45 LCA (leukocyte common antigen), CD31 (platelet endothelial cell adhesion molecule), D2-40 (marker of lymphatic endothelium), MMP9 (marker of degradation of connective tissue extracellular matrix) and Ki67 (cellular marker of proliferation).

Results: All observed parameters except for MMP9 had a significantly higher incidence in retraction pocket stage III compared to stage II according to Charachon.

Conclusion: We described immunohistochemical signs of retraction pocket pars tensa of tympanic membrane in children resulting in cholesteatoma. All the observed signs occur in the structure of matrix and perimatrix of cholesteatoma. A significantly higher incidence of all observed parameters except from MMP9 was proved in retraction pocket stage III, unlike in stage II. This observation proves the fact that retraction pocket is a progressive disease and is a procholesteatoma stage.

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