Evaluation of intensity of angiogenesis in granulation tissue in chronic otitis media - preliminary report

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Summary
In chronic otitis media molecular pathogenetic mechanisms are still unknown, however, angiogenesis may play a role. The aim of the study was to determine the intensity of angiogenesis in granulation tissue in chronic otitis media of different clinical course. Twenty six granulation tissue specimens (twenty two - from chronic otitis media, four - from prolonged otitis externa) taken during surgery were analyzed. The angiogenesis (microvessel density) was measured in paraffin-embedded tissue by an immunohistochemical method, by staining for endothelial cells with a monoclonal antibody against CD 34. The presence of CD 34 was found in all specimens. The expression was more intense in tissue samples from the group with good clinical course (good healing and without recurrence) than those in the group with poor healing and recurrence (mean number of dots for mm$^2$ 589.2 vs 533.3, respectively) and from the group without bacterial infection by Pseudomonas aeruginosa than those with this infection (mean number of dots for mm$^2$ 645.5 vs 440.8, respectively), but differences were not significant. In conclusion it is suggested that angiogenesis may contribute to different clinical course of chronic otitis media.