**TGF-beta ANTIGENE EXPRESSION AND CALCIFIC AORTIC STENOSIS**

N.N. Parfenova, E.V. Dubova, S.I. Khasanova, L.B. Mitrofanova, E.V. Zemtsovsky, **M.N. Prokudina**

Almazov Federal Heart, Blood and Endocrinology Center, Saint-Petersburg, Russia

Background: Calcific aortic stenosis (CAS) stands on top among the acquired heart diseases nowadays. Transforming Grows Factor Beta (TGF-beta) is known to be involved into development of heart and aorta connective tissue structures and in bone morphogenesis. Active bone formation can be seen while critical CAS. So we ask a question: does TGF-beta play any significant role in the pathogenesis of CAS?

Objectives and Methods: Immunohistochemical analysis of removed aortic valves with mouse monoclonal antibodies to TGF-beta (Novocastra) has been carried out. The reason for removing the valves in 10 cases was the critical calcific aortic stenosis, and in other 10 - infective endocarditis (control group).

Results: In 8 cases out of 10 those with CAS expression of TGF-beta antigen was found in 2-8% of fibroblasts in aortic valve cusps. And in the control group - only in 3 cases out of 10 in 3-9% fibroblasts.

Conclusion: Although the percentage of fibroblasts expressing TGF-beta antigen in removed aortic valves was small and almost the same in the study and control groups, still is was much more frequently detected in CAS-patients more rather than in the control group. The research requires to be continued since the possibility of TGF-beta involvement in the pathogenesis of CAS is probable.