

ANGIOGENIC ACTIVITY OF SERA FROM INTERSTITIAL LUNG DISEASES PATIENTS IN RELATION TO ACE ACTIVITY

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Introduction: A role of angiogenesis in pathogenesis interstitial lung diseases is not clear. Angiotensin-converting enzyme (ACE) is a marker of sarcoidosis activity. This enzyme may modulate also angiogenesis. The aim of the study was to evaluate the effect of sera from interstitial lung diseases patients on angiogenesis induced by mononuclear cells in relation to ACE serum activity. **Materials and methods:** The study population consisted with 77 sarcoidosis patients, 22 idiopathic pulmonary fibrosis patients, 16 bird fanciers lung patients, 8 silicosis patients and 14 healthy donors. Serum ACE activity was assayed by spectrophotometric method. As an angiogenic test a leukocyte-induced angiogenesis assay in animal model was used. **Results:** Sera from interstitial lung disease patients significantly stimulated angiogenic activity of mononuclear cells compared to sera from healthy donors ($p < 0.001$). The highest ACE serum activity was measured in sera from silicosis patients, and lowest in sera from sarcoidosis and IPF patients. The significantly lower serum ACE activity was measured in hypersensitivity pneumonitis group. Serum angiogenic activity from ILD patients measured by angiogenesis index negatively correlated with ACE serum activity ($r = -0.52$). This correlation was stronger in sarcoidosis group ($r = -0.6$). **Conclusion:** The results indicate the ACE can be important modulator of angiogenesis in interstitial lung disease.