

STRESS AND DEVELOPMENT OF PROGRESSING LUNG FIBROSIS

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The crucial question to be addressed is why some patients suffering from interstitial lung diseases (ILD) with appropriate treatment achieve improvement or stabilization of the disease while others develop a progressive and irreversible fibrotic phenotype (PF-ILD). It is considered that the initiation of PF-ILD may be caused by several mechanism, including inflammation, autoimmunity or epithelial and endothelial activation. Inflammation-driven fibrosis among ILD patients has been already reported in hypersensitivity pneumonitis and rheumatoid arthritis, with a progressive phenotype, often in the form of idiopathic pulmonary fibrosis. It has been proven that emotional stress is associated with increased risk of cardiovascular diseases. More specifically, amygdalar activity appears to be associated with cardiovascular disease events in human beings. However there is no data on the relationship between stress and development of lung fibrosis, despite numerous of scientific papers on emotional processing in ILD patients and also its influence on development of the other lung diseases, mainly COPD, asthma and lung cancer. The aim of this project is to evaluate the relationship between stress and development of PF-ILD with special regard to the assessment of amygdala activity. The details of the proposed study will be discussed in our presentation.