ABSTRACT BOOK ABSTRACTS



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AUTOIMMUNE CONNECTIVE TISSUE DISEASES

PREDICTIVE IMPORTANCE OF PLASMA PROLIDASE, ADENOSINE DEAMINASE AND DIPEPTIDYL PEPTIDASE-4 AS MARKERS OF COLLAGEN TURNOVER IN RELATION TO THE RODNAN SKIN SCORE IN SCLERODERMA

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Background: Scleroderma represents an autoimmune disease, associated with fibroblasts activation, increased extracellular matrix (ECM) proteins remodelling, overproduction and accumulation of compact collagen fibers in the reticular part of dermis, followed by the consequent thickening of the skin. In the later phase of the disease progression, the skin thickness may decrease followed by the skin atrophic changes. The clinical assessesment of the skin thickness should be recorded by Rodnan skin score (RSS). This score may predict the disease severity in patients with sistemic sclerosis. An enzyme involved in collagen turnover and catabolism is prolidase, while the membrane complex of dipeptidyl peptidase 4 (DPP-4), adenosine deaminase (ADA) and fibronectin, stimulates TGF-beta-induced fibroblast activation and fibrosis and the degradation of adenosine, a local hormone responsible for hypoxia-induced vasodilatation and immune suppresion.

Objective: The study was designed to evaluate the activity of prolidase, ADA and DPP-4 in plasma of scleroderma female patients according to the positive Rss value.

Patients and methods: 16 female patients with scleroderma and positive Rss ranging from 1-9 (Igroup) and 18 female patients with Rss ranging from 10-25 (II group) were included in the study. The age-matched female healthy subjects (20) were used as control group.

Results: The activity of prolidase was in positive correlation with the value of Rss, since the activity in the I grup was 11.81+2.51, vs in the II group of 19.61+2.65, and in the control group of 18.82+3.62 U/L. The activity of ADA increased, (26.09+2.22 in the I group; 26.66+2.09 in the II group and 16.51+2.08 U/L in control group). Only slightly elevated soluble DPP-4 activity was recorded.

Conclusions: Positive correlation which was obtained between the RSS/prolidase may











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predict skin atrophy phase, while increased ADA may decrease local vasodilatory and immunosupressive hormone adenosine, leading to hypoxia, endothelial damage and immune stimulation.



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