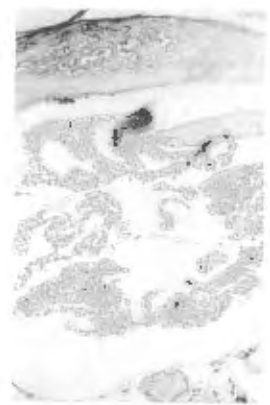


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Original Article

Immunohistochemical Analysis of the Skin in Systemic Sclerosis



Abstract

Background: Systemic sclerosis (SSc) is a chronic connective tissue disease characterized by skin thickening and fibrosis. The pathogenesis is unclear, but immunological factors are thought to play a role. This study aims to analyze the immunohistochemical changes in the skin of SSc patients.

Methods: Skin biopsies from 10 SSc patients and 10 normal controls were stained with hematoxylin and eosin (H&E) and immunohistochemically stained for various markers including alpha-smooth muscle actin (alpha-SMA), vimentin, and collagen. The results were compared between the two groups.

Results: In SSc patients, there was a significant increase in alpha-SMA and vimentin staining in the dermal fibroblasts, indicating increased cellular activity and fibrosis. Collagen staining was also increased. In normal controls, the staining was minimal and localized to specific cell types.

Conclusion: The immunohistochemical analysis demonstrates characteristic changes in the skin of SSc patients, including increased fibroblast activity and collagen deposition, which are consistent with the fibrotic nature of the disease.