

DIFFERENTIAL EXPRESSION OF COLLAGENS TYPE I AND TYPE IV IN LYMPHANGIOGENESIS DURING THE ANGIOGENIC PROCESS ASSOCIATED WITH BLEOMYCIN-INDUCED PULMONARY FIBROSIS IN RAT

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ABSTRACT

In order to assess the role of collagens I and IV during the angiogenic process associated with bleomycin-induced pulmonary fibrosis in rat, in situ hybridization and immunocytochemical studies were carried out. An increased expression of collagen IV was observed before an enhanced expression of collagen I after intratracheal instillation of bleomycin. Deposits of both collagen types were detected on the 21st day after treatment with bleomycin, surrounding the new blood vessels formed during the fibrotic process. At this time, the presence of new lymphatic vessels was associated uniquely with deposition of collagen I. These observations lead us to conclude that, at least during pulmonary fibrosis, lymphangiogenesis takes place after blood angiogenesis.