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Research Study of UIP Using LTRC Specimens and Clinical Data

Abstract: It is well recognized that angiogenesis is of fundamental importance in the complex process of wound healing. Vascular abnormalities have been well described in the IPF lung. Macrovascular anastomoses between the systemic and pulmonary circulation were initially noted by Turner-Warwick and have been expanded upon by Keane and Strieter. However, diminished rather than enhanced vascularization has been documented in the fibroblastic foci in IPF and it appears that angiogenesis is inhibited in this location. We hypothesize that the progressive fibrotic response seen in IPF may be the result of regional, aberrant, or ineffective angiogenesis within the fibroblastic foci. VEGF is a homeostatic factor required for the proper maintenance of the normal lung structure. We specifically hypothesize that an imbalance of growth factors is critically involved in IPF and that increased TGF β production and signaling via TGF β receptor leads to suppression of VEGF expression and impaired VEGF signal transduction.