

[Poster Board #115] Association of Genetic Variations in VEGF, EGF and ICAM-1 Genes with Progressive Massive Fibrosis, [Publication Page: A504]

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**Rationale:** Vascular endothelial growth factor (VEGF), epithelial growth factor (EGF) and intercellular adhesion molecule-1 (ICAM-1) play a critical role in the pathogenesis of pulmonary fibrosis by mediating angiogenesis, growth promotion, collagen degradation and leukocyte accumulation. Several single nucleotide polymorphisms (SNPs) have been described in these genes, some of which have been reported to be associated with different expression levels. Based on this, the influence of functional genetic variations in VEGF, EGF and ICAM-1 genes on the development of progressive massive fibrosis (PMF) was investigated. **Methods:** VEGF +405, EGF +61 and ICAM-1 +241 single nucleotide polymorphisms were examined in lung autopsy tissues from 691 miners with and without PMF using a case-control study design. **Results:** While no significant differences in the distribution of genotypes between PMF and control groups were detected, a significant gene-gene interaction was found between VEGF +405 and ICAM-1 +241 variants ( $p < 0.05$ ). **Conclusion:** These data suggest that VEGF +405 and ICAM-1 +241 variants may play at least a minor role in individual susceptibility to PMF.

**Session Info:** [\*\*] Poster Discussion Session, [B96] GENE AND ENVIRONMENT INTERACTIONS IN OCCUPATIONAL AND ENVIRONMENTAL LUNG DISEASE

**Session Time:** 1:30 PM - 4:15 PM

**Presentation Date:** Monday, May 22, 2006

**Presentation Time:** 1:30 PM

**Room:** Room 24 A/B/C (Upper Level), San Diego Convention Center

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