

European Respiratory Society Annual Congress 2012

Abstract Number: 2829

Publication Number: P764

Abstract Group: 3.1. Molecular Pathology and Functional Genomics

Keyword 1: Cell biology **Keyword 2:** Epithelial cell **Keyword 3:** No keyword

Title: Vitronectin expression in primary lung cancer

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Body: Rationale Vitronectin (Vn) plays a role in extracellular matrix (ECM) remodeling during tumorigenesis. Vn is present in human bronchial submucosal glands and it is secreted by A549 lung adenocarcinoma cell line. However, whether Vn is differentially expressed in tissues of primary lung cancer has not been explored. Methods Lung tissue from 22 primary lung carcinoma and 36 non-lung cancer subjects were obtained from fibrobronchoscopy. Sections were analyzed by histo- immunohistochemical methods. The total area occupied by ECM, surface and glandular epithelium, as well as the percentage area occupied by Vn at each of these localizations were measured. Chi-square, t-student, U-Mann Whitney and ANOVA tests were used in group comparisons. Statistical significance was tested at $P < 0.05$. Results Vn expression was observed in bronchial glandular and surface epithelium, as well as in ECM (Figure 1). In total, the average area of ECM, surface or glandular epithelium was $0.289\text{mm}^2 (\pm 0.032)$, $0.043\text{mm}^2 (\pm 0.009)$, $0.084\text{mm}^2 (\pm 0.031)$, respectively. The percentage area occupied by Vn in ECM, surface or glandular epithelium, was $4.899 (\pm 1.186)$, $7.279 (\pm 1.623)$, $3.285 (\pm 1.038)$, respectively; with not significant statistical differences between lung cancer and non-cancer subjects or within different types primary lung cancer.

Conclusion There were no statistically significant differences in Vn expression between lung cancer and non-cancer subjects, or within primary lung carcinomas.