

POSTER PRESENTATION

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# EGFR/erb-1, HER2/erb-2, CK7, LP34, Ki67 and p53 expression in preneoplastic lesions of bronchial epithelium

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A prognostic interpretation of preneoplastic lesions would have impact in bronchial carcinoma early diagnosis and through the study of Erb-B family receptors as they have an important role in lung carcinogenesis. The existence of drugs as tyrosine kinase inhibitors (TKis) stressed the importance of studying gene alterations for selected chemoprevention schemes and characterization of carcinogenesis.

Bronchial preneoplastic lesions were characterized by immunohistochemistry using the antibodies LP34 (high weigh molecular cytokeratin), CK7, Chromogranin A, Ki67, p53, C-erbB-2 and EGFR. *HER2* and *EGFR* gene copy number was also evaluated by fluorescent in situ hybridization (FISH) in those lesions.

The expected results defined the origin cell for basal cell hyperplasia and squamous metaplasia as adaptative lesions and dysplasia. By known experiences and published data, beyond the stem cell, the spectral evolution of bronchial preneoplastic lesions was demonstrated by characterizing basal cells (LP34) and their neoplastic potentiality.

Dysplasias showed a higher expression of EGFR, Ki67 and p53 with a stepwise increase with the gravity of the respective grading. C-erbB-2 immunohistochemical overexpression was a rare event in preneoplastic lesions. Polysomy was the main mechanism for *EGFR* and *HER2/neu* higher gene copy number and together with increased proliferation index (Ki67) will account to pre-view bronchial carcinogenesis.

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