P2-074 BSTB: Prognostic Factors Posters, Tue, Sept 4

## mRNA expression of HIF1alpha and XRCC4 in lung cancer and its peritumoral normal tissue

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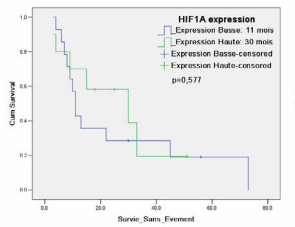
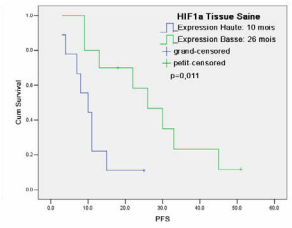
**Objective:** To investage the mRNA expression level of HIF1α and XRCC4 in non-small-cell lung cancer samples and peritumoral normal lung tussie and to evaluate their pronostic value.

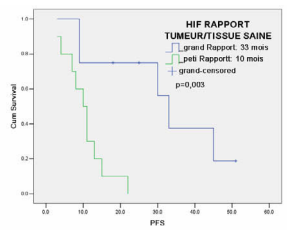
**Methods:** 29 non small cell lung cancer patients who had received the curative operation and adjuvant thoracic radiotherapy were included in this study. mRNA expression level of HIF1α and XRCC4 in congelated tumor samples and peritumoral normal tissue were detemined using real time RT-PCR method. Relationship of the expression level of the target genes and the clinic parameters and disease-free survival (DFS) of the patients were analysed.

**Results:** the patients with high expression level of HIF1α mRNA in tumor tissue had relatively long DFS but statistically not significative. The patients with low expression of HIF1α mRNA in peritumoral normal tissue had a longer DFS (median 26 months) than high expression's group (median 10 months, p=0.028). The ratio of tumor/normal tissue expression of HIF1α could further distinguish the patients with different DFS. Expression of XRCC4 in tumor or peripherical normal tissue did not correlate with the patients' DFS.

**Conclusion:** The HIF1α mRNA expression in peritumoral normal tissue and the ratio of tumor/normal tissue expression of HIF1α may be a prognostic factor in non small cell lung cancer.

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## Prognostic significance of COX-2 and VEGF expression in lung cancer

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**Aim:** In lung cancer patients, detecting the expression of various tumor markers are seem to be important for both the evaluation of prognosis, and management of treatment. In this study, we aimed to evaluate the expressions degree of COX2 (cyclooxygenase-2) and VEGF (vascular endothelial growth factor) in bronchoscopic biopsy tissues of patients with lung cancer and the relationship with survival.

**Method:** In this study, we evaluate 125 patients in three groups: Seventy patients were diagnosed by bronchoscopic biopsy (1st group), 22 patients were diagnosed by a method other than bronchoscopic biopsy (2nd group) and 33 patients were diagnosed as benign lung diseases by bronchoscopy (control group) were included. COX2 and VEGF expressions were evaluated by immunohistochemical method in bronchoscopic biopsy specimen. These specimens were scored according to staining intensity and densities. Scores, greater than 2, were accepted as positive.

**Table 1 Patients characteristics**

| Patient's characteristics | Group 1 | Group 2 | Group 3 |
|---|---|---|---|
| Median age | 60.0 | 57.5 | 47.0 |
| (Min - Max) | (39-80) | (35-78) | (15-78) |
| Gender Male/Female (n) | 64/6 | 22/0 | 14/19 |
| Performance Status | | | |
| Good/Poor (n) | 53/17 | 15/7 | -/- |
| NSCLC | | | |
| (IIB-IIIA) / (IIIB-IV) (n) | 11/40 | 1/19 | -/- |
| Squa./Adeno/Undiff. (n) | 29/12/10 | 5/5/10 | -/- |
| SCLC | | | |
| Limited / Extensive (n) | 7/12 | 2/0 | -/- |

COX-2 and VEGF expressions were also evaluated according to histological cell types, stages and performance status.

**Results:** COX2 expression was found significantly higher in group 1 than group 2 and group 3 (p=0,027 and p=0,001 respectively). At the subgroup analysis, similarly COX2 expression was found to be higher in the 1st group than the control group in small cell carcinoma (SCLC) and non-small cell carcinoma (NSCLC) patients (p=0.001 and p=0.006 respectively). COX2 expression was also found higher at the 1st group than the controls in the adenocarcinoma and epidermoid carcinoma patients (p=0.017 and p=0.006 respectively). However, VEGF expressions of patients with advanced stages (stages IIIB-IV) were greater than the patients with early stages (stages IIB-IIIA) in NSCLC patients (p=0.014, OR=4.8(1.28-17.89, 95%CI)). At the survival analysis, there was a statistically significant correlation between VEGF expression and shorter overall survival in all patients and also in NSCLC (p<0.01 and p=0.03 respectively).

**Conclusion:** Our study results suggest that COX2 expression might be used as a diagnostic marker, while VEGF expression might be a prognostic marker in patients with lung cancer.