

CLINICAL SIGNIFICANCE OF HMGB-1 AND TGF- β LEVEL IN SERUM AND BALF OF ADVANCED NON-SMALL CELL LUNG CARCINOMA.

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Lung cancer is one of the most common cancers in the world and is associated with poor prognosis. Therefore, the aim of this study was to evaluate the clinical usefulness of HMGB-1 (High-mobility group box 1) and TGF- β (Transforming Growth Factor beta) level in patients with advanced lung cancer. The study group included 45 patients with advanced non-small cell lung cancer (NSCLC) prior to chemotherapy, 23 patients with lung sarcoidosis (BBS) and 15 healthy volunteers. The level of HMGB-1 and TGF- β were measured (ELISA) in serum and BALF samples. A higher serum HMGB-1 and TGF- β levels in patients with NSCLC compared with the comparative groups was observed. Furthermore, the TGF- β concentration in the BALF was significantly higher in NSCLC than in healthy controls ($p=0.047$) but lower than in BBS ($p=0.016$). There was significant positive correlation of HMGB-1 level with TGF- β in both serum and BALF of patients with NSCLC. HMGB-1 in serum of NSCLC correlated with age and gender while its level in BALF was associated with distant metastasis. A higher serum level of HMGB-1 in NSCLC patients with progressive disease was linked with shorter overall survival and disease-free survival. There was also a positive correlation between the HMGB-1 and TGF- β in BALF of patients in stage IIIB NSCLC and overall survival ($p=0.04$; $p=0.003$). Our findings confirmed that the measurement of HMGB-1 and TGF- β levels in serum and BALF of patients with NSCLC prior to treatment may have clinical usefulness and predict the poor prognosis.