

PROGNOSTIC VALUE OF OSTEOPROTEGERIN AND sRANKL IN BRONCHOALVEOLAR LAVAGE FLUID OF PATIENTS WITH ADVANCED NON SMALL CELL LUNG CANCER

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Osteoprotegerin (OPG) is a soluble decoy receptor for RANKL (soluble receptor activator of nuclear factor-kappa B ligand, sRANKL). OPG promotes endothelial cell survival and neoangiogenesis. In our study, we evaluated the clinical usefulness of OPG and sRANKL in BronchoAlveolar Lavage Fluid (BALF) of patients with advanced Non Small Cell Lung Cancer (NSCLC). We measured concentration of OPG and sRANKL (ELISA) in BALF of 44 NSCLC patients and 15 healthy volunteers as control. The BALF levels of OPG were higher in NSCLC group than in control [0.48 (0.12-1.45) vs 0.23 (0.14-0.75) pmol/l, $p=0.0001$]. There were no significant differences between concentration of sRANKL in NSCLC group and healthy [1.22 (0.74-23) vs 1.12 (0.79-4.39) pmol/l, $p=0.67$]. A higher levels of sRANKL in BALF of NSCLC patients with progressive disease was linked with shorter overall survival and disease-free survival. We found a negative correlation between sRANKL and percentage of lymphocytes in BALF of NSCLC group and overall survival ($p=0.04$, $r=-0.3$; $p=0.008$, $r=-0.4$).

We conclude that NSCLC patients have higher BALF concentrations of OPG than healthy people. High levels of sRANKL in BALF of NSCLC patients may predict worse survival.