CIRCULATING THROMBOSPONDIN -2 AND FGF-2 IN PATIENTS WITH ADVANCED NON-SMALL CELL LUNG CANCER: CORRELATION WITH SURVIVAL

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Thrombospondin (TSP)-2 is known to be an endogenous negative regulator of vascularisation in human cancer. TSP-2 regulates angiogenesis through different mechanisms, including binding and sequestration of the angiogenic factor fibroblast growth factor-2 (FGF-2). However, it is unclear whether TSP-2 and FGF-2 are related to prognosis in Non-Small Cell Lung Cancer (NSCLC). To study this issue, we measured serum (Elisa) levels of TSP-2 and FGF-2 in 40 NSCLC patients (before chemotherapy) and 22 healthy subjects. Both TSP-2 nad FGF-2 concentrations were elevated in NSCLC grup compared with control (TSP-2: 26.72±8 vs 18.64±5.5 ng/ml, p=0.002; FGF-2: 11.9±5.8 vs 7.26±3.9 pg/ml, p=0.01). Receiver-operating chracteristic (ROC) curves were applied to find the cut-off the serum levels of TSP-2 and FGF-2 (NSCLC vs Healthy: TSP-2 =15.09 ng/ml, FGF-2 =2.23 pg/ml). We did not find any correlation between the levels of TSP-2, FGF-2, and the stage of tumor or treatment response (prospectively). Patients with pretreatment TSP-2 levels < 24.15 ng/ml had a median survival of 23.7 months, but those with TSP-2 > 24.15 ng/ml had only 9 months' median survival (p=0.007). Patients with FGF-2 level >11.21 pg/ml had significantly shorter survival than patients with FGF-2 < 11.21 pg/ml (7.5 months vs 16 months, p=0.034). We conclude that NSCLC patients have higher serum concentrations of TSP-2 and FGF-2 than healthy people. High levels of TSP-2 and FGF-2 may predict worse survival.