Potential angiogenic biomarkers in patients with non small cell lung cancer: possible implications

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Abstract:

To date, no single agent has gained a sufficient prognostic significance for NSCLC patients. So, there is an urgent need for new innovative biomarkers in NSCLC. The present study was designed to: 1) Evaluate the role of Nitric Oxide (NO), Sialic Acid (SA) and Glutathione S-Transferase (GST) as prognostic indicators in NSCLC. 2) Correlate the above parameters levels with the clinicopathological status of the patients. The study included 30 patients with newly diagnosed histopathologically confirmed NSCLC, as well as 10 healthy volunteers with matched age and sex as controls. Blood samples and lung tissue biopsies were taken from all subjects on admission. Results: Serum and tissue levels of NO, SA and GST activities were significantly higher in NSCLC patients compared to controls. These levels decreased significantly after chemotherapy. The serum and tissue levels of the studied parameters decreased significantly in the responders compared to resistant cases. In conclusion, NO, SA, besides GST correlated significantly with the clinicopathological status of NSCLC patients and are considered sensitive prognostic biochemical indices.

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