

## SERUM KL-6 LEVELS IN LUNG CANCER

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[Background] Serum levels of soluble MUC1 mucin detected by anti-KL-6 monoclonal antibody are widely used as an indicator of the activity of interstitial lung disease. It is also well known that serum KL-6 levels are often elevated in the sera of lung cancer patients. KL-6 has some potential to be used as a tumor marker of lung cancer.

[Purpose] The aim of this study was to evaluate the diagnostic accuracies of KL-6 in lung cancer.

[Patients and Methods] A total of 147 patients with lung cancer and 77 patients with benign chest disease were included in this study. Serum KL-6 levels were measured using ECLIA method. The cut-off level of 500 U/ml was used for KL-6.

[Results] Serum KL-6 levels were elevated in 34 patients (22.4%) in lung cancer, and 2 patients (2.6%) in benign chest diseases. In 147 lung cancer patients, the average serum KL-6 levels were  $298 \pm 119$  U/ml in patients with T1 disease,  $451 \pm 243$  U/ml in T2 disease,  $674 \pm 485$  U/ml in T3 disease, and  $557 \pm 437$  U/ml in T4 disease. The significant correlation was observed in T-factor and KL-6 ( $p < 0.0001$ ). The average serum KL-6 levels were  $366 \pm 241$  U/ml in patients with N0 disease,  $392 \pm 326$  U/ml in N1 disease,  $459 \pm 257$  U/ml in N2 disease, and  $499 \pm 228$  U/ml in N3 disease. Serum KL-6 levels were not significantly correlated with nodal status. Serum KL-6 levels were also correlated with tumor size ( $r=0.324$ ,  $p < 0.0001$ ), M-factor ( $p=0.017$ ), and clinical stage ( $p < 0.0001$ ). The sensitivity, specificity, positive predictive value, negative predictive value, and accuracy were calculated as 22.4%, 97.4%, 94.3%, 39.7%, and 48.2%, respectively, using the cut-off level of 500 U/ml.

[Conclusion] The serum KL-6 levels have some potential to be used as a tumor marker of primary lung cancer.