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Title: Serum C-reactive protein and procalcitonin levels in non-small cell lung cancer patients

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Body: The basic uses of C reactive protein (CRP) and procalcitonin (PCT) in the clinical practise is in the diagnosis and follow-up of infectious disease. The fact that CRP already achieves high levels in cases with lung cancer, however, limits its diagnostic specificity. PCT may be an important marker in the differential diagnosis of febrile lung cancer patients with high CRP levels. Our objective in this study was to determine the levels of CRP and PCT in patients with newly diagnosed non-infectious non-small cell lung cancer (NSCLC) and to relate these results to patient and disease characteristics. Serum CRP and PCT levels were measured in 79 histopathologically proved NSCLC patients and 20 healthy controls. Results were compared with demographic and clinical variables in patients with NSCLC. Serum CRP concentrations were significantly higher in NSCLC patients compared to the control group (7.79 (3.36 – 26.10) mg/dl vs. 38.30 (7.79 – 185) mg/dl; $p<0.001$). There were no significant difference between two groups in PCT levels ($p>0.05$). A mild, positive correlation was found between CRP level and tumor diameter. When comparing CRP levels in the lung cancer patients grouped according to age, sex, smoking status, clinical TNM staging and performance status (PS), the only significant difference found was that according to PS score. High serum CRP levels in noninfectious NSCLC patients are mainly related to PS status and tumour size. Adding serum PCT measurement in these patients may contribute to exclude infections in patients with NSCLC.