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**Title:** Immunohistochemical expression of Bcl-2 and p53 in patients with lung cancer: Correlation with survival time

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**Body:** Background: Bcl-2 and mutated p53 genes are the most relevant proteins involved in apoptosis and tumor development. The aim of this study was to determine the Bcl-2, p53 and Ki-67 expression and their impacts on survival time in patients with lung cancer. Material and methods: 127 patients with lung cancer (LC), 87 with non-small cell lung cancer (NSCLC) and 40 with small cell lung cancer (SCLC) were stained immunohistochemically on paraffin-embedded tissue, using specific monoclonal antibody for Bcl-2 and p53. Results: The differences in apoptotic marker expression between NSCLC and SCLC were revealed: p53 expression is seen more frequently in NSCLC patients (46/87; 52,87%). Bcl-2 expression is seen in 26/40 (65,0%) SCLC patients, and only in 27/87 (31,03%) with NSCLC (p=0,000). The Kaplan-Meier survival analysis demonstrated that Bcl-2 positive SCLC patients had poor survival status (Log Rank=20,137 p=0,000). In NSCLC patients only p53 immunoreactivity was associated with shortened survival (log Rank=6,534 p=0,011). Multivariate analysis showed that over-expression of Bcl-2 and p53 were independent prognostic marker for poor survival in the patients with SCLC (HR=6,02 p=0,000), and NSCLC (HR=1,547 p=0,049), respectively. Conclusions: The results indicated that aberrant expression of p53 and Bcl-2 have a strong effect on survival and prognosis in patients with NSCLC and SCLC and reflect their different pathogenesis.