Abstract:
Tumor markers have been shown to correlate with stage of disease and histologic type of non-small cell lung cancer (NSCLC). Probably their most important role is monitoring of treatment response and prediction of relapse. More recently, measurement of growth factors became possible. The purpose of this review was to compare the usefulness of serum tumor markers and growth factors as prognostic factors in NSCLC. The endpoint was the hazard ratio in multivariate analysis. Studies published between January 1995 and December 2002 were identified by a comprehensive MEDLINE search and systematically selected. Overall, 25 articles were found and analysed. We evaluated data from up to 1600 patients per marker. The exact type of assay and the cut-off values varied widely. This analysis failed to demonstrate a clear prognostic role for many commonly used markers, especially for squamous cell carcinoma antigen. Conflicting results were found for carcinoembryonic antigen, neuron-specific enolase and tissue polypeptide specific antigen. The most convincing data were those for Cyfra 21-1, where the vast majority of studies was positive. With regard to growth factors, the vascular endothelial growth factor studies uniformly came out negative, whereas basic fibroblast growth factor appears more promising. So far, growth factors do not appear superior to Cyfra 21-1. Overall, established prognostic factors
such as performance status and stage continue to remain more important than biological markers. In virtually all large studies with multivariate analysis, their influence was higher than that of emerging factors.