Abstract

Background: It has been demonstrated that there are a lot of different prognostic factors which are worthy of consideration whereas diabetes mellitus (DM) has not been clearly or consistently identified as a prognostic value in advanced non-small cell lung cancer (NSCLC). The aim of this study was to investigate the prognostic significance of the characteristics of patients in advanced NSCLC. Specifically, we investigated the impact of DM for progression-free survival (PFS) and overall survival (OS) in patients receiving first-line platinum-based doublets chemotherapy. Methods: We retrospectively reviewed 442 patients with advanced NSCLC. DM and other potential prognostic variables were chosen for analysis in this study. Univariate and multivariate analyses were conducted to identify prognostic factors associated with survival. Result: The results of univariate analysis for OS were identified as having prognostic significance: performance status (p < 0.001), stage (p < 0.001), DM (p < 0.001), liver metastasis (p = 0.02) and brain metastasis (p < 0.001). Stage, diabetes mellitus, and liver metastasis were identified as having prognostic significance for PFS. Multivariate analysis showed that poor performance status, presence of DM and advanced stage were considered independent negative prognostic factors for OS (p 0.001, p < 0.001 and p < 0.001 respectively). Furthermore, DM and stage were considered independent negative prognostic factors for PFS (p 0.005 and p 0.001 respectively). Conclusion: In conclusion, DM at the time of diagnosis was associated with the negative prognostic importance for PFS and OS in the advanced stage patients who were receiving first-line platinum-based doublets chemotherapy. In addition poor performance status and advanced stage were identified as negative prognostic factors.

Keywords

Diabetes mellitus, Non-small cell lung cancer, Prognostic factors