Temporal Trend of Overall Survival in Patients with Advanced Non-small Cell Lung Cancer Given First-Line Cytotoxic Treatments

Andrea Messori · Dario Maratea · Valeria Fadda · Sabrina Trippoli

Received: 23 June 2012 / Accepted: 22 September 2012
© Springer Science+Business Media New York 2012

To the Editor,

In elderly patients with advanced non-small cell lung cancer, first-line treatments are frequently based on either doublet or single third-generation cytotoxic agents. The results of the meta-analysis by Qi et al. [1] indicated that doublet therapy was superior to a single third-generation agent, but the statistical significance of this difference was borderline (end point: overall survival [OS]; hazard ratio = 0.84; 95% confidence interval: 0.71–1; P = 0.053; data from 11 trials).

We reanalyzed the data of median OS from these 11 trials for a total of 22 patient cohorts corresponding to 2,616 patients. Using standard meta-regression techniques [2–5], we investigated whether these values of median OS showed any temporal trend from 2000 to 2011.

Figure 1 illustrates the results of our analysis. According to the regression line, the values of median OS varied from 5.2 months in 2000 to 11.4 months in 2011. More importantly, the annual improvement (0.56 months; 95% confidence interval: 0.27–0.85 months) was clinically relevant and showed a high level of statistical significance (P < 0.001).

We are aware that one limitation of our analysis is that we did not account for the randomized design of the trials. Anyhow, the statistical impact of this temporal trend (P < 0.001) seems to be greater than that resulting from the comparison of doublet therapy vs. single-agent (P = 0.053 according to Qi et al. [1]).

References


