Editorial

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EGFR Inhibitors in the Treatment of Lung Cancer

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Treatment of elderly patients with non-small cell lung cancer (NSCLC) has been debated for years. Over the recent years evidence has grown that also this group of patients benefits from chemotherapy. The treatment toxicity has been acceptably tolerated, but the co-morbidity in this patient population has been significant [1–3].

The epidermal growth factor receptor (EGFR) tyrosine kinase inhibitors (TKI), i.e. erlotinib and gefitinib, have demonstrated significant clinical effect in patients with advanced NSCLC after previous chemotherapy and erlotinib treatment resulted in prolonged survival [4]. However, the role of erlotinib as 1st line therapy has not yet been established and results from ongoing studies are pending. The series of cases presented by Dr. Reck in this issue of ONKOGIE [5] demonstrates very clearly that erlotinib might be useful as 1st line therapy in elderly NSCLC patients. All patients had adenocarcinoma histology, however, a clinical effect was also seen in a patient with a heavy smoking history. This finding is interesting and demonstrates that clinical factors like gender and smoking status are not sufficient for selecting patients to EGFR therapy – a result which was also found in the two large placebo controlled randomized trials with erlotinib (BR-21) and gefitinib (ISEL) [4, 6].

Thus, other factors, e.g. molecular biomarkers, are needed for an optimal selection of NSCLC patients to EGFR TKI treatment rather than clinical/demographic factors including age. Unfortunately, this series of cases does not present any biomarker data. However, from other studies we know that certain biomarkers predict clinical benefit from the EGFR TKI [7]. Most consistently associated with prolonged survival has been an increased EGFR gene copy number detected by FISH, which can easily be tested on paraffin embedded diagnostic material [8, 9]. Thus, this test can easily be performed without any extra physical ‘cost’ also in elderly NSCLC patients. The current series of elderly NSCLC patients treated with erlotinib as 1st line therapy is very encouraging and should lead to further studies of erlotinib as 1st line therapy in this group of patients, as it is most likely better tolerated than conventional chemotherapy – especially in this patient category.

References