



19P- Predictors of Osimertinib Response at Second-line Treatment in EGFR Mutant Non-small Cell Lung Cancer Patients with Acquired T790M Resistance Mutation

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Objectives:

T790M resistance mutation is developed in about half of the metastatic lung cancer patients with EGFR mutations and treated with EGFR inhibitors. Osimertinib is effective for treating patients who had acquired T790M resistance mutation. The purpose of this study was to assess the predictors of osimertinib.

Methods:

We evaluated the clinicopathological and treatment features of the patients who acquired T790M resistance mutations and received osimertinib retrospectively. We used the Kaplan-Meier method, Cox regression analysis, and logistic regression analysis for statistical analysis.

Results:

Forty-five patients were included in the study. The median age was 59 (range, 33-79). Twenty-six patients (57.8%) were female. Forty patients (88.9%) were de-novo metastatic. Thirteen patients (28.9%) had metastasis in three or more organs. Twelve patients (26.7%) had brain metastasis and six patients (13.3%) liver metastasis. The objective response (complete or partial) rate was 62.2% with a median of 19.3 (95 CI %, 8.5-30) months progression-free survival (Figure-1). In logistic regression analysis, we found that age, gender, EGFR mutation type, brain metastasis, and type of previous therapies were not statistically significant for the response of osimertinib.

Conclusion:

This study showed that osimertinib response was not related to clinicopathological features in metastatic lung cancer patients who had acquired T790M resistance mutation.

