Neratinib efficacy in a subgroup of patients with EGFR exon 18-mutant non-small cell lung cancer and central nervous system involvement: findings from the SUMMIT basket trial

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Background

The phase 2 SUMMIT basket trial (NCT01563076) demonstrated efficacy of neratinib in patients with EGFR exon 18-mutant non-small cell lung cancer (NSCLC).10 Neratinib also has documented activity in HER2-positive metastatic breast cancer, including patients with central nervous system (CNS) metastases.11

Objectives

To report neratinib single-agent efficacy in a cohort of patients with EGFR exon 18-mutant NSCLC from SUMMIT, including patients with CNS involvement.

Methods

The overall SUMMIT study design has been presented previously.10 The design of the EGFR exon 15-18 lung cancer cohort is shown in detail in Figure 4.

Results

Neratinib was well tolerated with mandatory loperamide prophylaxis (28% 3; 2% 4). Four patients reported grade 1 and one patient reported grade 2 diarrhea (the most common side effect of neratinib). There was no evidence of grade 3 diarrhea, interstitial lung disease (ILD), or sinr rash. No patients required a dose hold, dose reduction, hospitalization or permanent discontinuation of neratinib due to diarrhea.

Conclusions

Activity of single-agent neratinib was observed in prior TKI-exposed patients with EGFR exon 18-mutant NSCLC. Despite the small sample size of only 3 patients with baseline CNS metastases, the current findings suggest a potential role for neratinib as a systemic treatment option for patients with NSCLC and difficult to treat uncommon mutations with CNS involvement: These data are consistent with the CNS activity of neratinib in HER2-overexpressing breast cancer.

Neratinib single-agent treatment was well tolerated in EGFR exon 18-mutant NSCLC patients, with no evidence of grade 3 diarrhea. In addition, no ILD or skin rash was noted.

The SUMMIT trial continues to enroll patients with EGFR exon 18-mutant NSCLC, with or without prior TKI.

References


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