Prospective efficacy of osimertinib in circulating tumour DNA (ctDNA) T790M-mutant non-small cell lung cancer (NSCLC) patients

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RESULTS

OBJECTIVES

The objectives were to assess:

• Proportion of patients with acquired ctDNA-T790M positive;
• Overall survival (OS) of the overall advanced EGFR-mutant population, as well as, OS comparison for T790M positive vs. negative.

Also, for those T790M-positive NSCLC patients who received osimertinib in a real world data we assessed:

• Response rate (RR) by investigator and, 
• Progression free survival (PFS) with osimertinib.

CONCLUSIONS

In patients with acquired resistance to first- or second-generation EGFR TKIs, ctDNA T790M detection by InVisionSeq™ is equivalent to what has been reported in tissue biopsy. Osimertinib has clinical benefit in patients for which the T790M resistance mutation is detected only through a liquid biopsy procedure.

METHODS

Prospective study in non feasible tissue re-biopsy EGFR-mutant advanced NSCLC patients with acquired resistance to EGFR TKI who received osimertinib (80 mg daily, EAP or approval) at RECIST progression according to ctDNA T790M mutational status using InVisionSeq™ results.

The RR was evaluated according to RECIST 1.1 by investigator, and the PFS was calculated from the date of osimertinib initiation until the date of progression or death, or the date of last follow-up.

BACKGROUND

Liquid biopsy circulating tumor DNA (ctDNA) analysis in advanced EGFR-mutant NSCLC patients is an approved tool for molecular profiling and disease surveillance when tissue is not available (1). Long-term efficacy of osimertinib in patients with the T790M resistance mutation positive detected only by ctDNA (without tissue information) has not been fully validated.

BIBLIOGRAPHY

(1) Remon et al. Ann Oncol 2017

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