Amivantamab Plus Lazertinib vs Osimertinib in First-Line *EGFR*-Mutant Advanced NSCLC: Final Overall Survival From MARIPOSA

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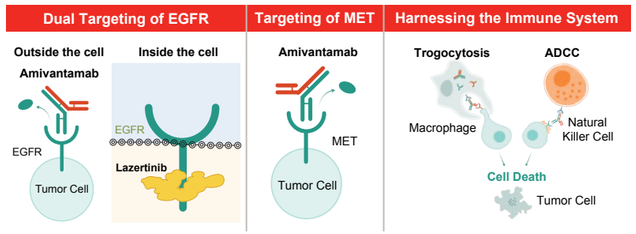
WHAT DO THESE RESULTS MEAN FOR INDIVIDUALS WITH NON-SMALL CELL LUNG CANCER (NSCLC)?

Amivantamab plus lazertinib helped individuals with previously untreated epidermal growth factor receptor (*EGFR*)–mutant NSCLC live longer compared to osimertinib, with a projected median overall survival benefit of >1 year. Amivantamab plus lazertinib also worked better on cancer that had spread to the brain

WHAT WAS THE PURPOSE OF THIS STUDY?

- Researchers wanted to see if a combination of 2 drugs, amivantamab plus lazertinib, worked better than another drug, osimertinib, for treating individuals who had previously untreated advanced *EGFR*-mutant NSCLC

Figure 1: How amivantamab + lazertinib work together

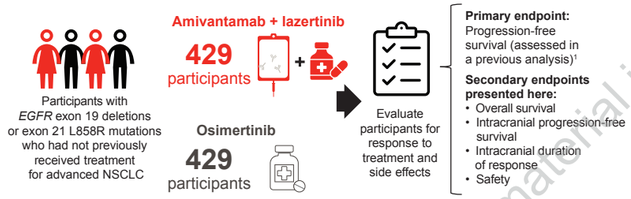


ADCC, antibody-dependent cellular cytotoxicity; EGFR, epidermal growth factor receptor.

WHO WAS IN THE STUDY AND HOW WAS IT CARRIED OUT?

- MARIPOSA (NCT04487080) was conducted by randomly assigning participants to 1 of 3 groups: the first group received amivantamab plus lazertinib, the second group received osimertinib, and the third one received lazertinib alone; here we focus on the amivantamab plus lazertinib and osimertinib groups
- The main goals of this analysis were to see how long the participants lived and how effective these drugs are in the brain

Figure 2: MARIPOSA study design



EGFR, epidermal growth factor receptor; NSCLC, non-small cell lung cancer.

WHAT WERE THE RESULTS?

The study found that amivantamab plus lazertinib helped participants live longer compared to osimertinib, with a projected median overall survival benefit of >1 year. Participants with a history of their cancer spreading to their brain were less likely to have their disease grow further in their brain or die

Figure 3: Overall survival

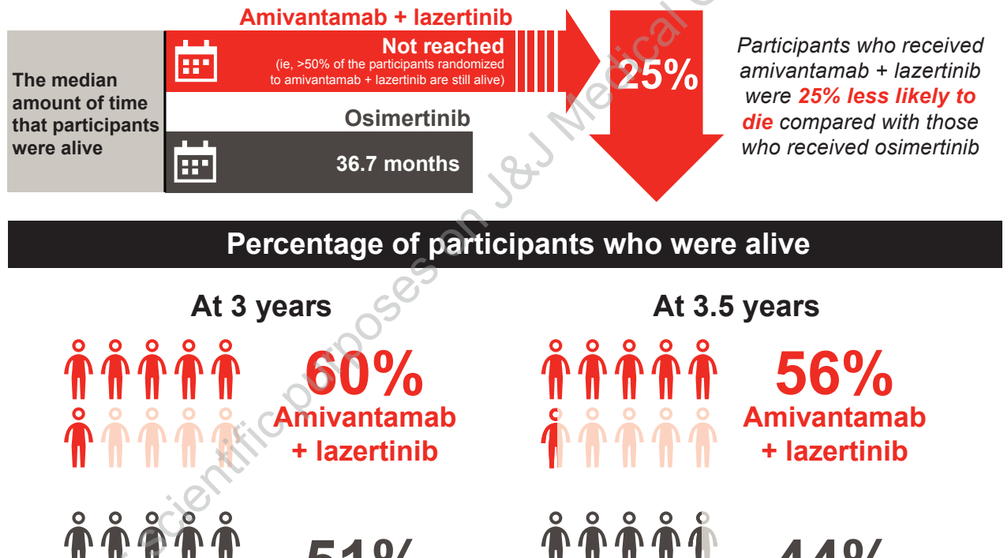


Figure 4: Outcomes in the brain

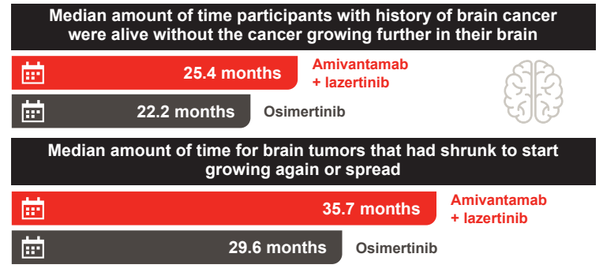
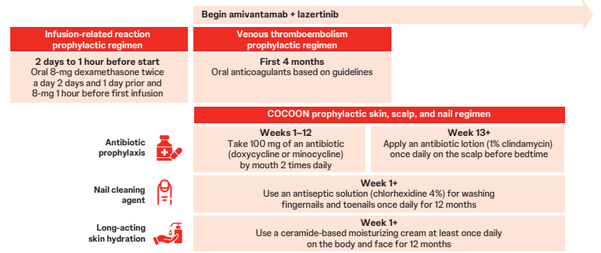


Figure 5: Preventing side effects with prophylactic regimens



Side effects with amivantamab plus lazertinib were generally manageable and no new side effects were observed compared with the previous analysis[1]

Glossary of terms

ADCC	A process in which immune cells destroy targets coated with antibodies	**Macrophage**	A cell type that takes up bacteria and cell debris, helps show antigens, and sends signals	***EGFR* mutation**	EGFR is a protein that relays chemical signals that tell the cell to grow, divide, or survive. Mutations in the *EGFR* gene are common in NSCLC and can affect how the cancer responds to treatment	**Exon 21 L858R substitution mutation**	An alteration to the DNA sequence of *EGFR* that changes the function of the protein. In the case of L858R, a small part of DNA is replaced with a different one within the *EGFR* gene	**Median intracranial progression-free survival**	Median amount of time participants with history of brain cancer were alive without the cancer growing further in their brain
Natural killer cells	Cells that kill virus-infected and cancer cells without needing to recognize them first	**Trogocytosis**	A process in which immune cells take bits of the surface from other cells during contact	**Exon 19 deletion mutation**	An alteration to the DNA sequence of *EGFR* that changes the function of the protein. In the case of exon 19 deletions, DNA was deleted in the part of the *EGFR* gene called exon 19	**Median overall survival**	The amount of time from the start of treatment to the point when half of the participants are still alive	**Median intracranial duration of response**	Median amount of time for brain tumors that had shrunk to start growing again or spread

REFERENCES:

1. Cho BC, et al. *N Engl J Med*. 2024;391(16):1486-1498.

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*AI was used in the preparation of these summaries.