Targeting HER2 (ERBB2) mutation-positive advanced biliary tract cancers with neratinib: results from the phase 2 SUMMIT 'basket' trial

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Background

HER2 activation results in enhanced tumor growth in preclinical models

HER2 amplification or overexpression

HER2 (ERBB2) somatic mutations

Activation of downstream signal transduction pathways

Subgroup of neratinib results in constitutive signaling, transmembrane transformation and enhanced tumor growth in preclinical models.

Methods

SUMMIT: a multi-histology, open-label, phase 2 ‘basket’ study of neratinib in patients with somatic HER2 mutations

\[ \text{HER2 activation} \rightarrow \text{constitutive signaling} \rightarrow \text{transformation} \rightarrow \text{enhanced tumor growth} \]

Results

Biliary tract cancer and HER2 mutations

Distribution of mutations in efficacy evaluable, HER2-mutant advanced biliary tract cancer patients receiving neratinib (n=25)

Patient disposition

Distribution of mutations in efficacy evaluable, HER2-mutant advanced biliary tract cancer patients receiving neratinib (n=25)

Efficacy summary

Summary and conclusions

Acknowledgements

References

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