KRAS mutational status in Japanese patients with colorectal cancer: Results from a multicenter, cross-sectional, large observational study conducted by the Japan Study Group of KRAS Mutation in Colorectal Cancer

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Background

The KRAS mutation mainly located in the codon 12 and 13 in colorectal tumors. The KRAS mutation indicates unresponsiveness of patients with metastatic colorectal cancer (CRC) to anti-epidermal growth factor receptor (EGFR) antibodies.

Various studies have reported that 30-40% of CRC patients have KRAS mutations.¹−³ However, the data on the frequency of KRAS mutations in Japanese CRC patients is limited to small sample size case-series.

Objectives

To elucidate KRAS mutational status in Japanese CRC patients in this multicenter, cross-sectional, observational study.

Methods

Key eligibility criteria
- Histologically confirmed colorectal adenocarcinoma
- Adequate tumor samples for this study
- Send formalin-fixed paraffin-embedded tumor blocks or thinly sliced tumor sections to commercial laboratories

Investigate KRAS point mutations in the codon 12 and 13 by following laboratories' SOP

Result

This is the largest observational study of KRAS mutational status in CRC in Japan. The frequency of KRAS mutation (37.6%) in Japanese CRC patients is similar to those reported in previous studies from western countries.

There are the significant difference of the frequency of KRAS mutation between men (36.6%) and women (40.3%) and right-sided colon (39.2%) and left-sided colon (42.8%).

As the age is higher there is more frequent KRAS mutation.

Site of the sample obtained

Conclusion

KRAS mutation may be a potential target for CRC treatment.

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References


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