

Method for predicting of sensitivity to chemotherapy for colorectal cancer

Capable of selecting anti EGFR antibody-sensitive/resistant patient from Ras wild-type group

Abstract

Anti-EGFR treatment for colorectal cancer is effective for patients without RAS mutation. However, response rate of the treatment is no more than 30%. This inventor analyzed the DNA methylation status of tissue samples from patients treated by anti-EGFR antibody. The result showed that highly methylated colorectal cancer (HMCC) has higher drug resistance than low methylated colorectal cancer (LMCC).

Effect & Application

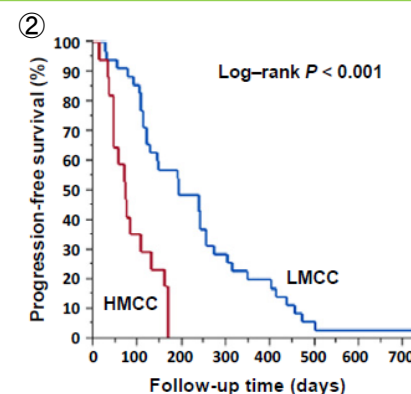
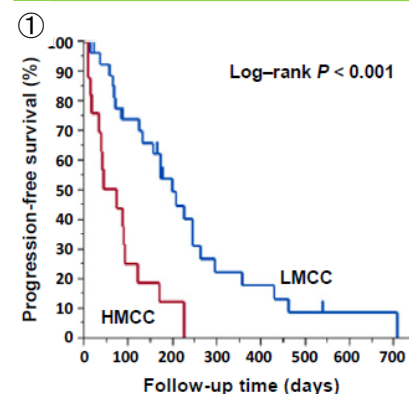
- Progression-free survival of HMCC is shorter than LMCC on cohort A and B.
 - Progression-free survival and overall survival of HMCC is similar to RAS mutant.
- This invention makes it possible to avoid side effects and unnecessary drug administration in the drug-resistant patients, and to predict sensitivity to chemotherapy independently of cancer stage or sample condition.

Patent Information

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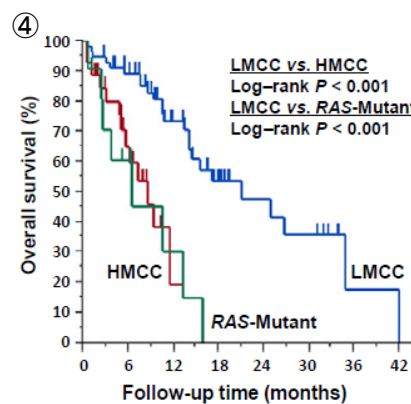
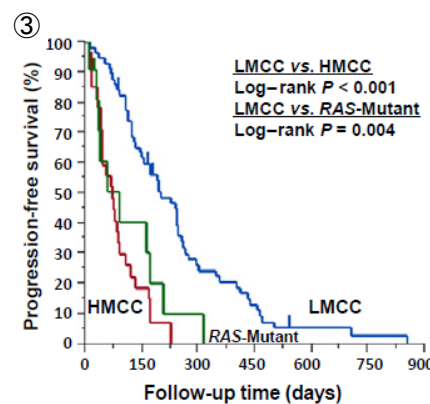
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Example (ref: Cancer Sci. 2015 Dec;106(12):1722-9)



① Progression-free survival of cohort A
HMCC(RAS wild-type): n=17
LMCC(RAS wild-type): n=28

② Progression-free survival of cohort B
HMCC(RAS wild-type): n=17
LMCC(RAS wild-type): n=35



③ Progression-free survival of cohort A+B and RAS mutant
HMCC(RAS wild-type): n=28
LMCC(RAS wild-type): n=58
RAS mutant: n=11

④ Overall survival of cohort A+B and RAS mutant
HMCC(RAS wild-type): n=28
LMCC(RAS wild-type): n=58
RAS mutant: n=11

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