Preliminary Short Communication

Comparison of clinic pathological characters and survival between right- and left-side colon cancer

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INTRODUCTION

Colorectal cancer is the third most common cancer and one of the most frequent causes of cancer-associated mortality worldwide\(^1\). Complete resection is essential for the cure of colorectal cancer.

Recently, location of colon cancer has been investigated and found that right-side (RC) and left side had different clinic pathological characters and survival\(^2,3\). More recently, these were reportedly based on the differences of molecular carcinogenesis and progression; microsatellite instability, mutation of receptor-tyrosine kinases, and / or addiction to growth factor receptors. However, little is known in the Japanese patients with colon cancer. Only a few retrospective studies with small sample size reported clinic-pathological differences in Japanese population.

The present study focused on this issue in Japanese patients who underwent curative resection for colorectal cancer by pooled analysis of three Japanese large phase III studies.

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PROTOCOL DIGEST OF THE STUDY

Purpose

The aim of the present study was to compare clinical and pathological characteristics, together with the survival outcomes between RC and LC in patients who underwent curative resection for colorectal cancer.

Resource

Individual patients’ data of each clinical trial was provided from the Japanese Foundation for Multidisciplinary Treatment of Cancer (JFMC).

Patients

Patient’s data and outcomes of 5530 patients enrolled onto three phase 3 trials of Japanese Foundation for Multidisciplinary Treatment of Cancer (JFMC) studies (7, 15, and 33) were pooled\(^4,5\). The details of each individual study had already been reported in peer review journal. JFMC 7 and 15: These two randomized trials were both large-scale studies with over 1000 patients, and focused on long-term utilization of oral 5-fluorouracil (FU) as adjuvant chemotherapy for colon or rectal cancer, and compared the overall survival outcomes with the surgery-alone arm or with one of treatment arm. JFMC 33: This phase III trial randomly assigned eligible
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patients from 2005 to 2007 at 233 centers to receive tegafur (UFT, 300 mg/m\(^2\)/day as tegafur)/leucovorin (LV, 75 mg/day) for 28 of 35 days for 6 months in the control group versus for 5 consecutive days per week for 18 months.

**Definition of right-sided colon cancer (RC) and left-sided colon cancer (LC)**

In the first analysis, transverse colon was excluded. Patients were classified as having RC if the primary tumor was located at the caecum, ascending colon, or hepatic flexure, and as LC if the tumor site was positioned at the splenic flexure, descending colon, or sigmoid colon. In the second analysis, transverse colon up to the splenic flexure was added in RC.

**Evaluations and statistical analyses**

The difference in clinical and pathological characteristics between RC and LC was determined using Fisher’s exact test or the \(\chi^2\) test. The overall survival and recurrence free survival curves were calculated using the Kaplan-Meier method, and were compared by the log-rank test. A Cox proportional hazards model was used to perform the univariate and multivariate survival analyses. A value of \(P <0.05\) was defined as being statistically significant. The SPSS software package (v11.0 J Win, SPSS, Chicago, IL) was used for all statistical analyses. This study was approved by the IRB of the Japanese Foundation for Multidisciplinary Treatment of Cancer.

**Data analysis**

Individual Patients’ clinic pathological data of a total of 5530 patients from the three trials were already collected and their analyses have been completed. Detailed results of overview of this integrated data will be published elsewhere after scrutinized examination and model based analysis of all the retrieved results.

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Conflict of interest statement

None declared.

References