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Review Article

TREATMENT OF COLORECTAL CANCER WITH INTRAPERITONEAL CHEMOTHERAPY AND LOBAPLATIN

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ABSTRACT

Purpose: To find the effects of intra-peritoneal chemotherapy and lobaplatin on Colorectal cancer patients.

Summary: Colorectal cancer occurs when tumor form in the lining of the large intestine. The risk of developing colorectal cancer rises after age 50. You're also more likely to get if you have colorectal polyps, a family history of colorectal cancer ulcerative colitis disease, eat a diet high in fat or smoker. Colorectal cancer is a cancer that starts in the colon or rectum. These cancers can also be named colon cancer or rectal cancer, depending on where they start colon cancer.

Keywords: Colorectal cancer, intraperitoneal chemotherapy, lobaplatin

INTRODUCTION

Colorectal cancer is the third most commonly cancer in males and the second in females, with over 1.2 million new cancer cases and 608, 700 deaths estimated to occurred in 2008. Nevertheless, many patients still failed to treatment due to tumor recurrence and metastasis, and 5-year survival rate still less than 10%. Pemetrexed is a new anticancer drug. is a leading cause of morbidity and mortality worldwide, with the number of new cases expected to rise significantly over the next decades. In China, 310 million people have been diagnosed with cancer. [1] Colorectal cancer (CRC) is one of the most common cancers, with a total of 143,460 new cancer cases and 51,690 deaths from cancer being projected to occur in the United States in 2012. [2] The development of metastatic disease from CRC is the major leading cause of death. Liver is the most common site of CRC metastasis. At the time of diagnosis, 25% patients with CRC have liver metastases and additional 25% to 45% patients develop liver metastases with disease progression. These patients often have poor prognosis, despite advances in chemotherapy [3]. Colorectal cancer (CRC) is the third most common cancer worldwide and the fifth most common in China [4]. It is also the fifth most common cause of cancer-related death. Although there have been remarkable improvements in the treatment and management of CRC, outcomes remain poor, with approximately 40% of patients who undergo curative surgery dying from their disease [5]. Colorectal carcinoma (CRC) is one of the most frequent cancers worldwide, and at the time of the first diagnosis of CRC, 20%–50% of all patients already present with synchronous liver metastases (LMs)[6]. LMs are the most common cause of death of patients with CRC[7] Without treatment, the median survival of patients with carcinoma with LMs (CLMs) is 6–12 months[8]. Colorectal cancer is a malignancy with the second cause of cancer associated death worldwide [9]. About half colorectal cancer patients shows positive initial response to the traditional therapies [10]. However, the long-term survival of colorectal cancer patients is still generally unsatisfactory due to the high risk of metastasis after multimodal treatment [11]. Over the past decades, owning to the introduction of conventional chemotherapeutic agents (irinotecan and oxaliplatin), and biologic agents (bevacizumab, cetuximab, and panitumumab), the median survival of patients with metastatic CRC (mCRC) have been prolonged [12–16]. Several clinical trials have demonstrated the beneficial effects of adding bevacizumab or cetuximab to chemotherapy in the treatment of patients with mCRC.[18,19,20] Although systemic chemotherapy has allowed tremendous improvements in the treatment of systemic metastases (especially liver and lungs),

METHODS

Patients:

The PubMed and Embase electronic databases were searched for eligible articles. for this study were diagnosed with pathologically-confirmed mCRC, who progressed after first or second line chemotherapy with FOLFOX. Further inclusion criteria were: Chinese; at least 18 years old; were included in this study. However, there was no limitation on CRC type (whether metastatic or not) or the stage of treatment (first line or second line). In order to improve the clinical value of this study, the publication date of all included.

Treatment:

The patients received preoperative chemotherapy with or without bevacizumab according to the decision of multidisciplinary team. There were 2 preoperative chemotherapy regimens: FOLFOX (Oxaliplatin 85mg/m2 and leucovorin 400mg/m2 were administered intravenously over 2 hours on the first day, 5-FU (5-fluorouracil) 400mg/m2 injected intravenously on the first day and then 1200 mg/m2 administered intravenously for 2 days for 2-week cycle) and FOLFIRI (irinotecan 180mg/m2 and leucovorin 400mg/m2 were administered intravenously over 2 hours on the first day, 5- FU 400mg/m2 was injected intravenously on the first day and then 1200mg/m2 administered intravenously for 2 days for 2- week cycle). Bevacizumab 5mg/kg was administered intravenously on the first day every 2 weeks combined with FOLFOX or FOLFIRI regimen.

DISCUSSION

This study assessed factors that could predict potential responsiveness of pemetrexed-combined chemotherapy in patients with mCRC. clinical benefit of second- or third-line therapy in patients with progressive disease remains unsatisfactory. So the choice of a second- or third-line therapy in patients with mCRC should be careful. Pemetrexed has more molecular targets than 5-FU and has shown activity against mesothelioma For metastatic colorectal cancer patients that were resistant to oxaliplatin-based first-line chemotherapy, Bi-weekly XELIRI plus bevacizumab as second-line treatment resulted in a lower incidence of severe diarrhea and blood toxicity, a response rate of 17.4%, a DCR of 80.4%, a PFS of 7.8 months, and an OS of 18.9 months, which indicates an overall favorable outcome. In these regimens, typically composed of 3 or 6 weeks cycles, the patient is treated with a combination of capecitabine at 2000 mg/m2 and irinotecan (either in single dose or divided doses), which, considering the washout period of capecitabine, amounts to a daily capecitabine dose of 1143–1333 mg/m2 /day and a weekly irinotecan dose 60–87 mg/m2 /week. Liver metastases from colorectal cancers represent the leading cause of cancer-related morbidity and mortality. Most patients with colorectal liver metastases present with unresectable disease, most patients responded to first-line chemotherapy; however, 9 (16.9%) of 53 patients did not respond to first-line chemotherapy and were instead treated by multiple lines of chemotherapy. Colorectal cancers could include transcoelomic metastasis within the peritoneal cavity, resulting in peritoneal carcinomatosis rather than lymphatic and hematogenous metastasis. Who underwent palliative resection of the primary tumor followed by oxaliplatin-based chemotherapy. FOLFIRI+ cetuximab and XEL+ bevacizumab stood out for their significant effect on long-term survival. FOLRIRI+ bevacizumab and FOLFOX+ bevacizumab are also good secondary options for their superiority to other treatments in respect to OS and PFS Alternative therapies include RFA, microwave therapy, percutaneous alcohol injection, HAI of chemotherapeutic drugs, target therapy, and TACE. Here, we describe the first study of comparing the effect of chemotherapy plus TACE with chemotherapy plus cetuximab conducted in a Chinese sample of CLMs patients. Colorectal cancer is an aggressive cancer with large amount of stemlike distinct metastatic cells [21]. During the process of metastasis, those cancer cells could undergo the process of EMT, resulting in the long-distance dissemination and stem-like property [22].

CONCLUSION

Although the number of patients in this study was small, the present study results met the primary end point. A sequential approach involving 3 months of an oxaliplatin-based regimen followed by 3 months of capecitabine is a safe adjuvant treatment for CRC.In addition to regimens using a combination of S-1 or irinotecan, Bi-weekly XELIRI plus bevacizumab therapy, as a second-line treatment for metastatic colorectal cancer refractory to oxaliplatin-based first-line chemotherapy, will likely be a promising new therapy for cases where a continuous intravenous infusion of 5-FU is not required.

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