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Clinical application effect evaluation of Kanglaite combined with DCF chemotherapy program in patients with gastric cancer

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ABSTRACT

Objective: To evaluate the clinical application effect of Kanglaite combined with DCF chemotherapy program in the patients with gastric cancer. **Methods:** 86 cases who were all the gastric cancer patients admitted to our hospital from February 2014 to June 2016 were selected, according to randomly divided into two groups, control group and experimental group. The control group was treated with DCF treatment, and the experimental group were treated with Kanglaite combined DCF chemotherapy program, and the therapeutic effects, the quality of life of patients and incidence rate of adverse reactions in two groups were observed and compared. **Result:** Compared with the control group, the total effective rate and the quality of life score of the experimental group were significantly higher, and the incidence of adverse reactions was less ($P < 0.05$). **Conclusion:** In clinic, Kanglaite combined with DCF chemotherapy program on patients with gastric cancer, can improve the treatment effect and life quality of patients, with less adverse reaction and high application value.

0 Introduction

The mortality rate of gastric cancer is higher, and chemotherapy is always used in clinic, but it is found that in chemotherapy, although chemotherapeutic drugs can kill tumor cells, it will also affect normal tissue cells in a certain extent. In this case, how to reduce the occurrence of toxic and side effects and improve therapeutic effect has become a hot spot in the

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research of gastric cancer [1-3]. Clinical practice and related literature reports show that the use of Kanglaite in the clinical treatment of cancer can effectively reduce the toxic and side effects of chemotherapeutic drugs [4-5]. In recent years, we have applied the chemotherapy regimen of Kanglaite and DCF chemotherapy program in the clinical treatment of gastric cancer patients, and obtained a good effect.

1 Materials and methods

1.1 Clinical materials

All of 86 cases included in the study were the gastric cancer patients admitted to our hospital from February 2014 to June 2016, and the gastric cancer was confirmed by pathology, and the life expectancy was more than 3 months. Patients with vital organs diseases of heart, liver, or kidney, allergic patients, and patients received other treatment recently were excluded. All cases signed informed consent. 86 patients were divided into control group and experimental group according to the random digital table method, with 43 cases in each group. In the control group, there were 27 males and 16 females, from 34 to 67 years old, and average age is 45.23 ± 3.12 years old. In the experimental group, there were 29 males and 14 females, from 33 to 68 years old with an average age of 45.19 ± 3.18. The statistical significance of basic data of the two groups was not obvious, namely $P>0.05$.

1.2 Method

The patients in control group was treated with DCF chemotherapy program, and the operation was as follows: 60mg/m^2 docetaxel was added to 500ml intravenous infusion of normal saline, d1; 20mg/m^2 cisplatin was added to 500ml saline, d1-3; 500mg/m^2 5-fluorouracil was added to the 500ml saline, d1-5. The Kanglaite combined with DCF chemotherapy program was used in the experimental group. DCF chemotherapy program was the same as the control group, while the Kanglaite is used in intravenous drip. 200ml dosage for one time a day, and continuous treatment for 10 days is a 1-week period. The two groups of patients were given a regular blood examination according to the change of their condition, and the dosage of the drug was adjusted rationally according to the result of the examination.

1.3 Evaluation indicator and criterion of clinical therapeutic effect

Evaluate the quality of life of two groups of patients. Adopt the questionnaire of quality of life developed by the World Health Organization (WHO), including the field of psychiatry, physiology, environment, psychology, social relations and independence. The total point is 100, and the higher the score, the higher the patients' quality of life [6]. The incidence of adverse reactions in two groups was recorded and compared. Referring to the criteria for evaluating the efficacy of solid tumors developed by the World Health Organization, the efficacy is divided into complete remission, partial remission, stabilization and progression, and overall response rate is divided into the complete remission rate and partial remission rate [7].

1.4 Statistical method

Create a data table, and input the whole data of this study into the statistic software (SPSS17.0), in which the measurement data of each group were mean ± standard deviation ($\bar{x} \pm s$), and were tested by the T-comparison; the count data were indicated by % and tested by the x^2 comparison. $p<0.05$ indicates that the difference is statistically significant.

2 Results

2.1 Comparison of therapeutic effect of patients in two groups

Compared to the control group, the overall response rate of the experimental group (69.8%) is significantly higher, and statistical significance between groups is obvious, $P<0.05$, see table 1 for details.

Table 1 Comparison of therapeutic effect of patients in two groups [n(%)]

Groups	complete remission	partial remission	stabilization	progression	overall response rate
Control group	11（25.5）	13（30.3）	10（23.3）	9（20.9）	24（55.8）
Experimental group	13（30.3）	17（39.5）	8（18.6）	5（11.6）	30（69.8）*

Note: comparison between groups, * indicates $P<0.05$.

2.2 Comparison of scores of qualities of life in two groups

Compared with the control group, the quality of life indicator was higher in the experimental group, and it was statistically significant, $P<0.05$, see table 2 for details.

Table 2 Comparison of scores of qualities of life in two groups（$\bar{x}\pm s$）（points）

Indicators	Control group	Experimental group
Psychiatry	63.41±4.32	78.23±2.33[&]
Physiology	59.01±5.34	76.34±3.41[&]
Environment	62.38±5.43	77.23±4.34[&]
Psychology	60.98±6.42	80.22±2.01[&]
social relations	62.07±5.79	79.09±4.21[&]
Independence	61.23±4.33	78.34±3.22[&]

Note: [&]indicates comparison between two groups, $P<0.05$.

2.3 Comparison of the incidence of adverse reactions in control group and experimental group

In the experimental group, leukopenia, nausea and vomiting, peripheral nerve toxicity and diarrhea incidence were less than those in control group, and the data between groups were statistically significant, $P<0.05$, see table 3 for details.

Table 3 Comparison of the incidence of adverse reactions in two groups [n (%)]

Groups	Leukopenia	nausea and vomiting	peripheral nerve toxicity	diarrhea
control group (n=43)	30（69.8）	32（74.4）	12（27.9）	10（23.2）
experimental group (n=43)	15（34.9）#	17（39.5）#	4（9.3）#	2（4.7）#

Note: # indicates comparison between two groups, $P<0.05$.

3 Discussion

3.1 Summary of etiology and clinical manifestation of gastric cancer

There are many causes of gastric cancer, common causes are as follows: 1) regional environment: compared with the south of China, the incidence of gastric cancer is significantly higher in northwestern and eastern coastal areas, and there are data indicating that the incidence of gastric cancer is higher in people who eat salted or smoked food for a long time [8]. 2) Helicobacter pylori infection: Helicobacter pylori infection easily makes nitrate into nitrite and nitrosamines and cause cancer, in addition, Helicobacter pylori infection is also easy to cause chronic inflammation of the gastric mucosa, and after influenced by environmental pathogenic factor, it is easy to speed up the proliferation of mucosal epithelial cells, and then cause distortion of cancer. 3) Precancerous lesions: Gastric diseases include gastric remnant stomach, gastric polyps and chronic atrophic gastritis, these lesions may be associated with chronic inflammatory process, atypical hyperplasia or gastric mucosal intestinal metaplasia, and may develop into cancer if it is not treated timely and effectively. 4) Heredity and genetics: references about genetic and molecular biology reported that the incidence of gastric cancer was significantly higher in people with a family history of gastric cancer than in other normal individuals [9]. Carcinogenesis of gastric cancer is a multiple-factor, multi-stage and multi-step process, involving many gene changes, such as oncogene, metastasis-related genes, anticancer genes and apoptosis-related genes, etc. [10-11].

Most of the early gastric cancer have no significant symptoms, and some of them is with the upper gastrointestinal symptoms; the common clinical symptoms of advanced gastric cancer are pain and weight loss, and the late stage gastric cancer patients could show malnutrition, anemia and wasting, and cachexia could be found in severe cases.

3.2 Analysis of effect of DCF chemotherapy program for treating gastric cancer

At present, in the clinical treatment of gastric cancer, chemotherapy is the main therapy, and the first-line chemotherapy program has DCF, CF, ECF, Folfiri, and so on, among which the DCF chemotherapy is most commonly used. It is reported that in the killing of tumor cells, DCF chemotherapy regimen may produce certain damage to the normal tissue cells, and a variety of adverse reactions is easy to be caused, such as diarrhea, hemoglobin reduction, peripheral nerve toxicity and nausea and vomiting, affecting the treatment of patients with compliance, therapeutic effect, the quality of life [12]. In this way, in the clinical

treatment of tumor, how to balance the curative effect effectively and reduce the toxic and side effect of chemotherapeutic drugs has become a hotspot in the study of anticancer therapy.

3.3 Analysis of effect of treating gastric cancer by Kanglaite combined with DCF chemotherapy program

Kanglaite injection is a white emulsion extracted from the effective ingredients of Chinese medicine coix seed, through the refinement of the addition of isotonic agent and natural emulsifier and prepared by the modern advanced process. Clinical practice and modern pharmacology have confirmed that effective ingredient in Kanglaite has obvious anti-cancer efficacy, which not only can directly kill cancer cells, but also improve the immune ability and anti-cancer ability of patients [13-14]. Li Guanxiong and other scholars have conducted a study on the effects of Kanglaite combined with DP program on the efficacy and immune function of Ⅳ gastric cancer, and it is reported that the overall response rate and immune function of the patients in observation group treated with Kanglaite combined chemotherapy regimen were better those of the control group ($P<0.05=$. It can be seen that the treatment of Kanglaite combined chemotherapy regimen could reduce the toxic and side effects of chemotherapeutic drugs and obtain remarkable and good effects [15]. Based on previous reports, this article analyzed the efficacy of Kanglaite combined with DCF chemotherapy regimen in the treatment of gastric cancer, and the results showed that the therapeutic effect, the quality of life score and the incidence of adverse reactions of the experimental group were better than those in the control group, and $P<0.05$.

It can be concluded that the combined application of Kanglaite and DCF chemotherapy regimen in the treatment of gastric cancer has less adverse reactions and significant effect, can effectively improve the quality of life of patients, and possesses high value of clinical application and promotion.

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