

Clinical Observation on Acute Myeloid Leukemia Treated by Combination of Traditional Chinese and Western Medicine

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Abstract: Objective: To study the value of integrated traditional Chinese and western medicine in acute myeloid leukemia. Methods: 58 patients with acute myeloid leukemia admitted to our hospital from May 2017 to June 2019 were divided into experimental group and control group (n=29) by computer random double blind method. The experimental group was treated with integrated traditional Chinese and western medicine, while the control group was treated with conventional therapy. Contrast immune function and other indicators. Results: at the end of the treatment, the levels of CD3 +, CD4 +, CD4 + / CD8 + were $(63.42 \pm 6.94)\%$, $33.47 \pm 5.01\%$, $1.03 \pm 0.13\%$, higher than those of the control group $(56.48 \pm 6.02)\%$, $(28.29 \pm 3.68)\%$, $(0.91 \pm 0.08)\%$, $P < 0.05$. EORTC qoq-c30 score (82.47 ± 3.96) at the end of treatment in the experimental group was better than that in the control group (73.11 ± 4.25) , $P < 0.05$. The total effective rate of the test group was 93.10%, which was higher than the control group of 72.41%, $P < 0.05$. Conclusion: The application of integrated traditional Chinese and western medicine in acute myeloid leukemia can significantly improve the efficacy, promote the recovery of immune function and improve the quality of life. It is recommended to promote it.

1. Introduction

Acute myeloid leukemia is very common among leukemias, usually caused by invasion of peripheral tissues, bone marrow and blood by abnormally differentiated and proliferating hematopoietic stem progenitor cells [1]. This disease is one of the malignant tumors, which can cause fever, anemia, hemorrhage, fatigue and other symptoms, and can cause serious damage to the patient's health. At present, chemotherapy is commonly used to treat patients with acute myeloid leukemia in clinic, but some patients' conditions cannot be effectively controlled, thus developing into refractory acute myeloid leukemia [2]. In addition, chemotherapy is also easy to cause many toxic and side effects, such as infection, nausea, vomiting and anorexia [3]. Therefore, it is necessary for clinicians to find a more practical and feasible treatment scheme for patients with acute myeloid leukemia through continuous research and exploration. In this paper, 58 patients with acute myeloid leukemia (May 2017-June 2019) were selected to analyze the application value of integrated traditional Chinese and western medicine therapy in acute myeloid leukemia, summarized as follows.

2. Data and Methods

2.1 General Information

In this study, 58 patients with acute myeloid leukemia were selected. The treatment period was from May 2017 to June 2019. According to the principle of computer random double blind method, the patients were divided into two groups. In the experimental group, there were 13 women and 16 men, with an average age of (38.47 ± 5.92) between 14-69 years and a weight of 30-84kg (53.26 ± 5.71) years. In the control group, there were 12 women and 17 men, with an average age of (39.15 ± 6.03) years. The average weight was (53.79 ± 5.83) years old. The patient's medical record

information is complete, and the informed consent is signed. The data of body weight of the two groups were compared, $P > 0.05$, which was comparable.

2.2 Exclusion Criteria [4]

(1) Persons with consciousness disorder. (2) The interviewee. (3) the mentally ill. (4) the lack of clinical data. (5) Severe heart and kidney diseases. (6) allergic constitution. (7) Other malignant tumors.

2.3 Method

Both groups received conventional western medicine treatment, i.e. DA scheme was selected to give chemotherapy to the patients. The details are as follows: 1-3 days of treatment, intravenous daunorubicin, dosage of 90mg/m² per day, 2 courses of treatment to be maintained, and 1 course of treatment for 10 days. This medicine is provided by “Shandong new times pharmaceutical co., ltd.” the Chinese medicine standard word: H20083726. Cytarabine is administered intravenously for 1-7 days with a daily dose of 100mg/m². It requires continuous administration for 2 courses of treatment, with one course of treatment lasting 10 days. This drug is provided by “Fu Ren Pharmaceutical Group Xie Long Tumor Drug Co., Ltd.” and the national standard is H20074232. The experimental group was supplemented with Chinese medicine compound preparation, with the following details: compound Sophora flavescens injection, dosage of 20ml, diluted with physiological saline (250ml), after the liquid medicine was fully mixed, intravenous drip treatment was started for patients, once a day, maintenance treatment was required for 10 days, i.e. one course of treatment. A total of 2 courses of treatment are required. When the first course of treatment is over, you need to rest for 2-3 weeks before starting the next course of treatment.

2.4 Evaluation Index

About 5ml fasting venous blood was collected from the two groups before and after treatment, and T lymphocyte subsets of the patients were detected by flow cytometry. The detection items mainly included CD3+, CD8+ and CD4+, and CD4+/CD8+ values were calculated according to the detection results.

The EORTC QOQ-C30 scale was used to evaluate the quality of life of the two groups before and after treatment. The scale mainly includes the overall health and functional areas, with a maximum score of 100. The higher the score, the better the quality of life [5].

2.5 Efficacy Judgment [6]

The therapeutic effects of the two groups were evaluated according to the contents of “blood disease diagnosis and therapeutic effect standard”: (1) complete remission, no leukemia cells in peripheral blood leukocyte classification, disappearance of symptoms such as infection and anorexia, hemoglobin level of 100g/L and above, absolute value of neutrophils of $1.5 \times 10^9/L$ and above, and proportion of bone marrow primitive naive cells of 5% and above. (2) Partial remission, obvious remission of symptoms such as infection and anorexia, hemoglobin level of 100g/L and above, absolute value of neutrophils of $1.5 \times 10^9/L$ and above, and proportion of bone marrow primitive immature cells of 5-20%. (3) Not relieved and not meeting any of the above criteria. (complete remission+partial remission)/number of cases *100% is total effective.

2.6 Statistical Analysis

SPSS 20.0 software was used for data analysis, t-test measurement data ($\bar{x} \pm s$), χ^2 test count data [n (%)]. $P < 0.05$.

3. Results

3.1 Analysis of t Lymphocyte Subsets

There was no significant difference between the test group and the control group ($P > 0.05$). After two courses of treatment, the levels of CD3 +, CD4 + and CD4 + / CD8 + in the experimental

group were higher than those in the control group ($P < 0.05$), but there was no significant difference between the two groups ($P > 0.05$). As shown in Table 1.

Table 1 Comparative Analysis Of t Lymphocyte Subsets in Two Groups (%)

Group	Time	CD3+	CD8+	CD4+	CD4+/CD8+
Test group	Before treatment	64.92±5.83	31.73±4.56	33.18±5.24	1.04±0.12
(n=29)	After treatment	63.42±6.94	31.82±5.31	33.47±5.01	1.03±0.13
Control group	Before treatment	65.08±5.97	31.99±4.84	33.25±5.32	1.05±0.11
(n=29)	After treatment	56.48±6.02	30.09±4.56	28.29±3.68	0.91±0.08

3.2 Quality of Life Analysis

There was no significant difference in EORTC qoq-c30 between the experimental group and the control group ($P > 0.05$). EORTC qoq-c30 score of the experimental group was higher than that of the control group at the end of two courses ($P < 0.05$). As shown in Table 2.

Table 2 Comparative Analysis Of Eortc Qoq-C30 Scores between the Two Groups (Points)

Group	Number of cases	Before treatment	After treatment
Test group	29	52.79±4.92	82.47±3.96
Control group	29	53.14±5.17	73.11±4.25
t		0.2679	7.9214
P		0.1433	0.0000

3.3 Efficacy Analysis

The total effective rate of the experimental group was 93.1%, higher than that of the control group (72.41%) ($P < 0.05$). As shown in Table 3.

Table 3 Comparative Analysis Of the Efficacy of the Two Groups [n, (%)]

Group	Number of cases	Complete remission	Partial remission	Not relieved	Total efficiency
Test group	29	19(65.52)	8(27.59)	2(6.9)	93.10
control group	29	9(31.03)	12(41.38)	8(27.59)	72.41
X ²		-	-	-	7.5843
P		-	-	-	0.0065

4. Discussion

Clinically, acute myeloid leukemia, as one of the hematological malignancies, is characterized by fever, anemia and hemorrhage. If the patients can not get timely and correct treatment after the onset of the disease, their life span is usually only about 3 months [7]. At present, chemotherapy is an important treatment for this disease, such as Da program. The main drugs used are daunorubicin and cytarabine, the former is anthracycline anti-tumor drug, which can be embedded in DNA, inhibit the synthesis mechanism of nucleic acid, and interfere with the synthesis of DNA and RNA, so as to achieve the purpose of anti-tumor [8]. The latter is pyrimidine antimetabolic drug, which can effectively inhibit the synthesis of DNA in tumor cells and thus interfere with cell proliferation. However, it has been reported that the effective rate of DA in the treatment of AML patients is only in the range of 60-70%. In addition, the use of chemotherapy drugs is easy to cause a lot of adverse reactions, so that patients' compliance is significantly reduced, which has a negative impact on the control effect of their condition [9].

In traditional Chinese medicine, there is no such term as leukemia, which is generally included in the categories of "virtual labor" and "urgent labor" according to the symptoms of patients. The

disease is usually caused by the invasion of pathogenic toxin, phlegm and blood stasis and weakness of vital energy, which can cause bone marrow damage [10]. Therefore, the treatment should start from the aspects of resolving phlegm, clearing away heat and detoxification, promoting blood circulation and removing blood stasis. The effective component of compound matrine injection is matrine, which is extracted from matrine. It has strong functions of relieving pain, clearing heat and dampness, cooling blood and detoxifying. Modern research shows that matrine can effectively inhibit the proliferation of tumor cells and promote the apoptosis of tumor cells. In addition, matrine also has the function of regulating immunity, antibacterial and anti-inflammatory. In this study, at the end of 2 courses, the levels of D3+, CD4+ and CD4+/CD8+ in the experimental group were higher than those in the control group ($P < 0.05$); the EORTC QOQ-C30 score in the experimental group was better than that in the control group ($P < 0.05$); the total effective rate in the experimental group was higher than that in the control group ($P < 0.05$).

In conclusion, the combination of traditional Chinese and Western medicine for the treatment of acute myeloid leukemia patients can achieve significant results, and is conducive to the recovery of patients' immune function, and the improvement of quality of life, it is recommended to promote.

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References

- [1] Wei Shuling, Liu Shilu, Luo Hailin, et al. Analysis on the core idea of clinical observation of 30 cases of acute myeloid leukemia treated by the combination of traditional Chinese and Western medicine with Pei's Shengxue granule and Qingkou capsule [J]. Diabetes Tiandi, 2019,16 (11): 11
- [2] Wang Wenjie. The effectiveness of Integrated Chinese and Western medicine in the treatment of acute myeloid leukemia [J]. Psychological monthly, 2019,14 (20): 162-163
- [3] Li Wei, Ma Xihu, Qin LAN. Clinical study of Compound Kushen injection combined with chemotherapy in the treatment of acute myeloid leukemia [J]. Journal of modern Chinese and Western medicine, 2019,28 (33): 3736-37383742
- [4] Ren Lirong. The clinical efficacy of dexitabine combined with IAG in the treatment of elderly myelodysplastic syndrome transformed into acute myeloid leukemia [J]. Journal of clinical rational drug use, 2019,12 (33): 3-4
- [5] Lu Yan, Liu Mingzhu, Zhang Xueying. Efficacy of integrated traditional Chinese and Western medicine in the treatment of elderly acute myeloid leukemia [J]. Chinese Journal of Gerontology, 2018,38 (17): 4150-4151
- [6] Zhang Ruidan, Wang Bo, Shen Yiping. Shen Yiping's experience in the treatment of acute myeloid leukemia in the elderly [J]. Journal of Zhejiang University of traditional Chinese medicine, 2018,42 (9): 723-726734
- [7] Expert consensus on diagnosis and treatment of elderly acute myeloid leukemia (non-acute promyelocytic leukemia) by hematology Professional Committee of Chinese society of integrated traditional and Western Medicine [J]. Chinese Journal of integrated traditional and Western medicine, 2019,39 (4): 405-411
- [8] Xia Xiaojun, Duan Yun, Bao Xiaoling, et al. 189 cases of acute myeloid leukemia treated by Huisheng capsule combined with chemotherapy [J]. Western traditional Chinese medicine, 2019,32 (6): 95-97
- [9] Zhao Jieping, Zhao Xinru, Jin Song. The efficacy and side effects of fludarabine combined with cytarabine in the treatment of acute myeloid leukemia [J]. Journal of integrated traditional Chinese

and Western medicine and cardiology, 2019,7 (15): 178180

[10] Shi zhexin, Wang Xiuting, Yan Xinxiang, et al. Retrospective analysis of individualized and stratified treatment of elderly acute myeloid leukemia with traditional Chinese and Western Medicine [J]. Chinese Journal of integrated traditional and Western medicine, 2017,37 (9): 1069-1072