# Combination of Chinese and Western medicine in the Treatment of Orthopaedic Diseases

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***Abstract:*** **Objective:** To observe the effect of the combination of Chinese and Western medicine therapy in the clinical treatment of traumatic orthopaedic diseases. **Methods:** The clinical data of patients with traumatic orthopaedic diseases treated in hospitals between June 2020 and October 2022 were retrospectively collected. 60 cases were taken as the study subjects and divided into a control group (consisting of 30 patients who took conventional Western medicine treatment) and an observation group (consisting of 30 patients who took combined Chinese and Western medicine treatment) with the aid of an Excel sheet to compare the treatment effects. **Results:** The rates of wound swelling and pain relief in the control group and the observation group were 66.67% and 90.00% respectively, with the observation group having a higher rate ($p<0.05$); the rates of soft tissue repair in the control group and the observation group were 50.00% and 80.00% respectively, with the observation group having a higher rate ($p<0.05$); the fracture healing time in the observation group was shorter than that in the control group ($p<0.05$). **Conclusion:** The effect of combining Chinese and Western medicine in the treatment of traumatic orthopaedic diseases is ideal, which is mainly reflected in the three aspects of promoting wound swelling, promoting soft tissue recovery and promoting fracture healing, and is worth promoting.

***Keywords:*** Combination of Chinese and Western Medicine; Orthopaedic Diseases; Effect Analysis

## Introduction

[1]Traumatic orthopaedic diseases include fractures of the lower limbs, pelvis and other parts of the body, as well as joint injuries of the shoulder and knee joints, which will not only cause serious pain but also have adverse effects on normal life and work. At present, the clinical treatment for traumatic orthopaedic diseases mostly adopts plaster fixation, surgical repositioning and medication for pain relief to restore the normal state of bones and soft tissues and relieve patients' pain symptoms. However, clinical studies in recent years have pointed out that the above treatments have certain limitations in improving patients' blood flow , which hinders the recovery and healing of traumatic fractures, while many Chinese herbal medicines have the effects of tonifying qi and nourishing blood, invigorating blood circulation, eliminating decay and creating new blood, which is conducive to the growth of granulation tissue and skin, achieving the goal of promoting bone scab formation and fracture healing[2] . The aim of this study is to observe the effect of combined Chinese and Western medicine treatment in traumatic orthopaedic diseases, which is reported below.

## 1. Materials and methods

## 1.1 General information

The clinical data of patients with traumatic orthopaedic diseases admitted from June 2020 to October 2022 were retrospectively collected, and 60 of them were taken as the study subjects. The 60 patients were randomly divided into a

control group and an observation group of 30 cases each, of which 16 were male and 14 were female; ages 18~66 (48.16±1.57) years. In the observation group, there were 17 males and 13 females; ages ranged from 19 to 67 (48.29±1.61) years. After statistical analysis, there was no significant difference between the two groups in terms of age, gender, fracture type, clinical symptoms and other general information ($p>0.05$), which was comparable.

## 1.2 Research Methodology

The control group was treated with conventional Western medicine, mainly by plaster fixation, internal and external fixation of plates, surgical repositioning, traction and medication.

The observation group was treated with a combination of Chinese and Western medicine, and the Western medicine treatment was the same as that of the control group, i.e. depending on the actual situation of the patients, a targeted treatment was chosen. The specific plan of the Chinese medicine treatment is as follows: the main treatment is internal and external application of Chinese medicine. For patients with subcutaneous tissue defects of 2-2.5cm and skin defects of 3-4.5cm in diameter, external application of muscle-generating cream gauze or burn moistening cream gauze is used. For patients with soft tissue infections and bone infections, on the basis of surgical dilation, the wound is first drained of pus using Exorcise and Raw Muscle Paste or Qi San Dan medicated thread, and after confirming that the pus has drained away, the wound is wrapped with Raw Muscle Paste gauze. It is worth mentioning that the patient's wound needs to be cleaned before each dressing change. The cleaning solution can be a mixture of metronidazole and gentamicin. For patients with severe soft tissue damage and large wounds that cannot be treated with a transfer flap or a phase I free flap, a gauze dressing is applied and a phase II flap is applied after the wound has been reduced and the granulation has grown. For patients with skin erythema and swelling, treatment with Si Miao Yong An Tang with addition and subtraction; for patients with grey muscle skin and poor soft tissue blood flow, treatment with oral tori disinfection and Ten Quan Da Teng Tang with addition and subtraction. If this condition does not occur in the patient, the use of herbs with blood-vitalising properties is sufficient.

## 1.3 Observed indicators

(1) Efficacy of wound swelling and pain relief. There are 4 ratings of excellent, good, acceptable and poor: if the swelling of the wound disappears and the pain disappears within 6 d of treatment, it is considered excellent; if the swelling and pain disappear within 7-11 d of treatment, it is considered good; if the swelling and pain disappear within 12-15 d of treatment, it is considered acceptable; if the time taken for the swelling and pain to disappear exceeds 17 d, it is considered poor. (2) Soft tissue repair. There were four ratings: excellent, good, acceptable and poor: repair time within 6 d was considered excellent; repair time between 7 and 11 d was considered good; repair time between 12 and 15 d was considered acceptable; repair time over 20 d was considered poor. (3) The healing time of fractures in both groups was counted.

## 1.4 Statistical methods

The data from this experiment were entered into SPSS 28.0 software for processing and analysis. The count data n (%) was tested by $x^2$ and $P< 0.05$ indicated a significant difference in material comparison.

# 2. Results

## 2.1 Comparison of the efficacy of the two groups in reducing swelling and pain in wounds

The excellent rate of wound swelling and pain relief was 90.00% and 66.67% in the observation group and control

group respectively, which was higher in the observation group ($p<0.05$), detailed data are shown in Table 1.

Table 2 Comparison of pain relief efficacy of wounds between the two groups [n (%)

| Group | n | Excellent | Good | Available | difference | Excellent rate |
|---|---|---|---|---|---|---|
| Control group | 30 | 6 | 14 | 6 | 4 | 20 (66.67) |
| Observation group | 30 | 14 | 13 | 2 | 1 | 27 (90.00) |
| $x^2$ | | | | | | 4.8118 |
| p | | | | | | 0.0283 |

## 2.2 Comparison of soft tissue repair between the two groups

The excellent rate of soft tissue repair in the observation group (80.00%) was significantly higher than that in the control group (50.00%), and the difference was statistically significant ($p<0.05$), the detailed data are shown in Table 2.

Table 2 Comparison of soft tissue repair between the two groups [n (%)

| Group | n | Excellent | Good | Available | difference | Excellent rate |
|---|---|---|---|---|---|---|
| Control group | 30 | 7 | 8 | 5 | 10 | 15 (50.00) |
| Observation group | 30 | 15 | 9 | 6 | 0 | 24 (80.00) |
| $x^2$ | | | | | | 5.9341 |
| p | | | | | | 0.0149 |

## 2.3 Comparison of fracture healing time between the two groups

In the observation group, the fracture healing time was 8.2 weeks for patients with trunk femur fractures, which was significantly shorter than that of the control group (9.4 weeks) ($p<0.05$); the fracture healing time was 7.3 weeks and 10.5 weeks for patients with tibial fractures in the observation and control groups respectively, which was shorter in the observation group ($p<0.05$).

# 3. Discussion

[3]The common symptoms of traumatic orthopaedics include foot fractures, pelvic fractures, femur fractures and joint injuries, etc. Plaster or plate fixation, surgical traction and repositioning, medication and rehabilitation exercises are commonly used in the treatment of traumatic orthopaedic diseases, which can effectively relieve patients' symptoms and promote fracture healing. In addition, studies have shown that Western medicine has limitations in improving blood flow in traumatic orthopaedic diseases. Therefore, in order to ensure that patients recover as soon as possible, it is necessary to use a combination of Western and Chinese medicine based on a comprehensive consideration of the patient's condition .[4]

According to Chinese medicine, traumatic orthopaedic diseases are related to the internal organs, meridians, tendons, bones, qi and blood, etc. Therefore, "holistic treatment" should be the basic principle in treatment, and the effects of tonifying qi and nourishing blood, eliminating decay and regenerating new blood, activating blood circulation and removing blood stasis should be taken into consideration. The aim is to improve local blood flow, promote the growth of granulation tissue and early formation of bone scabs.[5] The results of this study showed that compared with the control group treated with conventional Western medicine, the observation group treated with a combination of Chinese and Western medicine had a higher rate of swelling and pain relief and soft tissue repair, as well as a shorter healing time for the fracture, indicating that

the combination of Chinese and Western medicine could effectively relieve swelling and pain symptoms, improve soft tissue repair and facilitate early recovery. It should be noted that in order to ensure the effectiveness of combined Chinese and Western medicine treatment, a comprehensive assessment of the patient's degree of illness, symptoms and recovery at each stage is required, and the results should be used as the basis for selecting the appropriate treatment modality and Chinese and Western medicines.

In conclusion, the application of combined Chinese and Western medicine treatment in traumatic orthopaedic diseases can achieve ideal results, not only promoting wound swelling and relieving painful symptoms, but also promoting soft tissue recovery and fracture healing, which has high promotion value.

# Reference

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