

# *Study on the Treatment of Ankle Sprain by Orthopaedic Western Medicine Surgery*

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**Keywords:** Orthopedic ankle surgery, western medicine surgery, treatment cooperation, satisfaction.

**Abstract:** Objective: This article analyzes the clinical effect of postoperative treatment cooperation during anesthesia in orthopedic ankle surgery. Methods: From December 2018 to December 2020, 100 orthopedic patients who received ankle surgery were treated and randomly divided into two groups, 50 cases in each group. Patients in the experimental group received postoperative treatment cooperation; patients in the control group received conventional postoperative treatment. The postoperative treatment effects of the two groups were compared. Results: The satisfaction rate of patients in the experimental group was higher than that in the control group, and the difference was statistically significant ( $P < 0.05$ ). Conclusion: Compared with conventional postoperative treatment, the application of postoperative treatment cooperation in the process of anesthesia in orthopaedic western medicine ankle surgery is more effective, which can significantly improve patient satisfaction and has great promotion significance.

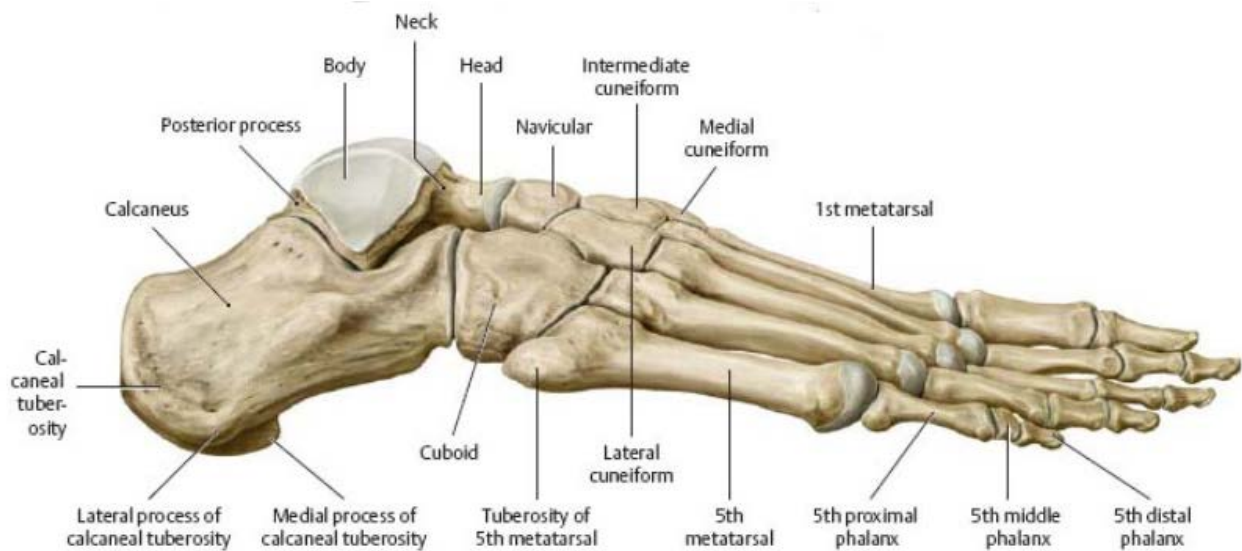
## 1. Introduction

With the acceleration of the aging process of the domestic population, the incidence of common ankle diseases such as orthopedic diseases is also increasing. Orthopedic diseases usually need to be treated by surgery, but the physical function of western medicine in orthopaedics is gradually declining, and often accompanied by a variety of diseases, resulting in a significant probability of complications after surgical treatment due to anesthesia intervention and surgical treatment. Compared with other patients, the risk of surgical treatment is relatively high. In order to achieve the purpose of successfully completing anesthesia and surgical treatment, it is necessary to closely cooperate with the anesthesiologist and the anesthesiologist after the operation during the anesthesia process, which can ensure the smooth progress of the anesthesia and surgical treatment.

## 2. Treatment of ankle fractures

Ankle fractures mainly refer to fractures of the femoral neck, femur, patella, tibia and fibula, and

calcaneus, which are mostly caused by external forces such as traffic accidents, falls, and falls from a height [1]. Open reduction and internal fixation are the main treatment methods. Patients often suffer from increased mental stress due to fracture pain, surgical stress, post-operative fixation, lack of relevant knowledge of fracture treatment, insufficient self-care ability, reluctance to take the initiative to perform functional rehabilitation, and increased complications such as constipation, ankle thrombosis, and pressure ulcers [2], it affecting the surgical outcome. Post-operative treatment in the operating room is crucial to the surgical quality of patients with ankle fractures, and also has a positive impact on the patient's mental health, daily living ability, and postoperative rehabilitation [3]. Rehabilitation from surgery is of great importance. Systematic post-operative treatment is a high-quality post-operative treatment model based on overall post-operative treatment, fully respecting the patient's dignity, privacy, personality, etc. Personalized, comfortable and high-quality post-operative care services [4]. This study intends to evaluate the application effect of systematic postoperative treatment in patients with ankle fracture surgery, and to provide reference for the postoperative treatment of orthopedic surgery in the operating room. As shown in Figure 1.



*Figure 1: Schematic diagram of western medicine for foot orthopedics*

### 3. Ankle Western Medicine Surgery Treatment

Limb orthopedic surgery is a common surgical method in clinical surgery, and it often needs to be carried out with the help of Western medicine surgery and related equipment such as operating tables [5]. At present, the commonly used operating table in clinical practice is the traditional four-corner wooden operating table, which is widely used in clinical operations because the production process of the operating table is relatively simple and the materials used are relatively cheap. However, related studies have shown that the traditional four-corner wooden table operating table is fixed with iron nails, and the iron nails will develop during imaging examinations, which will affect the imaging results. Clinical practice has proved that the table legs connecting the operating table and the operating table block the placement of the imaging equipment during the operation. Therefore, the surgeon needs to adjust different angles and take pictures for many times to know the exact condition of the patient. Therefore, the traditional four-corner wooden table surgery the table has been unable to meet the use requirements of medical staff, and the auxiliary effect of surgery is relatively limited.

### **3.1 Study on the effect of surgical treatment**

The results of this study showed that the preoperative preparation time of the operating table, the placement time of western medicine surgery, and the irradiation time of the observation group were shorter than those of the control group. Differences in surgery-related time indicators may have a great relationship with the structure of the operating table itself, and there are great differences between different operating tables. The control group used the traditional four-corner wooden table operating table, which is made of common wood, so it takes a lot of time to sterilize it before surgery. The feet of the table block the placement of the bottom plate of the X-ray machine, so the doctor needs a certain amount of time to set up the Western medicine operation, and because the fixing material of the operating table is iron nails, it will affect the results of the filming, and the doctor needs to perform multiple operations. Take pictures to determine the condition. The observation group used a foldable unilateral foot-lifting and see-through operating table for auxiliary surgery. The operating table is a visual organic board and the frame is made of metal. Both materials are easy to sterilize and have little impact on imaging, so they can be used. Greatly reduces preoperative preparation time and irradiation time. At the same time, the foot of the operating table is a foldable unilateral support foot, and the connecting end of the operating table is fixed with a special multi-functional bed edge hook and fixer to replace the proximal support foot that affects the placement of Western medicine operations, which is easy for doctors to place Western medicine operations.

### **3.2 Study on the therapeutic effect of 2 groups**

The results of this study showed that the smoothness and satisfaction of doctors, nurses and imaging personnel in the observation group were higher than those in the control group. Analysis of the reasons, this may be related to the placement of Western medicine operations and the number of filmings. The observation group used a foldable unilateral foot lift and see-through operating table. The tabletop material of the operating table has little effect on the results of the filming. Secondly, the connecting end of the operating table and the operating bed the support feet are replaced by special multi-functional bed edge hooks and fixators, which is convenient for medical staff to place Western medicine operations at multiple angles, which improves the smoothness of the operation. Filming and comprehensive evaluation, so the satisfaction of medical staff is relatively high. The results of this study showed that the patients in the observation group had fewer overall filming times than the control group, and their satisfaction was higher than that in the control group, which was relatively consistent with the results of the above study.

## **4. Research on the treatment process of orthopedic ankle**

Orthopedic ankle treatment is a very common ankle and ankle disease, and it is easy to be accompanied by symptoms such as ankle treatment. In the early stage of the disease, there are clinical symptoms such as expansion, shallow ankle stasis, etc., and the disease is constantly changing, and the skin of the calf is constantly changing. Changes, mainly manifested as local tissue malnutrition, which is mainly caused by poor blood circulation. The probability of occurrence of treatment will increase or decrease with the severity of the patient's condition, the more severe the condition, the higher the probability of occurrence of treatment. Therefore, ankle treatment has a great impact on blood reflux, especially on the local area, which is very likely to cause poor blood flow, resulting in nutritional deficiency on the skin surface, abnormality, and high recurrence. will be greatly affected. See Figure 2.



*Figure 2: Diagram of orthopedic surgery for foot orthopedics*

Ankle chronic ankle insufficiency is a common complication in the later stage of ankle-ankle insufficiency, which is mainly affected by two factors, distal ankle high pressure and limb congestion, and significantly inhibits the healing speed of treatment. Treatment for patients with ankle treatment is usually the same as the treatment that the control group patients in this study received, with skin treatment first, and ankle surgery after the treatment heals. Treatment will increase the difficulty of the patient's treatment. Therefore, in order to reduce the difficulty of treatment, it is necessary to investigate and treat the cause of the treatment, and determine the appropriate operation time, which has important positive significance for the clinical treatment and recovery of the patient. According to research, the use of helium-neon laser irradiation and zinc skin application has obvious effect on the treatment of patients. At the same time, other studies have shown that the treatment effect of ankle surgery can be improved by cutting the cutaneous nerve and the superficial ankle. to achieve the goal. In this experiment, exfoliation of the orthopaedic-treated shallow ankle and ligation of the traffic ankle significantly alleviated the symptoms of ankle stasis.

During the operation, the posterior arch ankle and the communicating branch of the deep ankle system need to be ligated and cut off; when determining the surgical incision, you should first find the previously marked the communicating branch with abnormal function should be cut off after ligation. Appropriate treatment should be performed on the treatment surface. There are many around the treatment surface. Improper handling will result in serious consequences, so it should be sutured or carefully cut off; for the ankle removal operation, it is necessary to ensure that the removal is clean and thorough. In the process, after the treatment surface is sutured and ligated, the wound can be treated with point-like skin grafting, which is very beneficial to the healing of the treatment wound. Properly raising the affected limb of the patient after the operation has a great effect on the reflux of the ankle, and the treatment wound should be cleaned up in time. And dressing change, encouraging patients to exercise on their own, has a great effect on improving the calf muscle function. In this article, through the comparison of the data and recovery of two groups of patients who implemented two different treatment methods, it is shown that in clinical treatment, directly performing ankle surgery on patients has a great effect on the healing time and shortening of treatment time. It also played a certain role in promoting the recovery of patients.

In this study, the data and results of 100 patients with ankle treatment were analyzed and grouped by two different treatment methods to explore the effect and effect of different timing of surgery on the recovery of patients. There was no significant difference between the two groups in terms of volume and operation time ( $P < 0.05$ ); however, in terms of hospitalization time and hospitalization costs, the patients in the experimental group treated with direct surgery were better than those in the control group who underwent surgery after healing had healed. At the same time, the patients in the experimental group were treated with direct surgery, and the recovery time was  $(9.6 \pm 3.4)$  days; the

patients in the control group were treated with surgery after healing, and the recovery time was (18.3±5.2) days., the former was significantly better than the latter, and the data difference between the above two groups was statistically significant (P<0.05). Therefore, in the clinical treatment of patients with ankle treatment, the method of direct surgery has more advantages in terms of surgical effect and cost, and has high clinical value, which is worthy of application and promotion.

#### **4.1 Postoperative study of orthopedic surgery patients**

**Prevention strategies** There are many factors related to the occurrence of nosocomial infection in patients undergoing orthopaedic surgery, and prevention and control is difficult. Therefore, the control of postoperative infection has important clinical significance, and every link needs to be strictly regulated.

As far as patients are concerned: conduct a comprehensive assessment of the patients admitted to the hospital, including physical and psychological status, and conduct relevant necessary examinations; instruct them to quit smoking and limit alcohol, carry out individualized health education, and actively control the underlying diseases and related complications of patients; Surgery should be performed at a stage with better state and mental health, and the purpose, method, precautions, and prognosis and recovery of surgical treatment should be informed in detail before surgery, so as to correct the patient's misunderstanding and improve treatment compliance; if the patient is found to have negative emotions, Active communication and guidance should be made to avoid excessive psychological stress; at the same time, in order to ensure the therapeutic effect, patients should be given appropriate nutritional supplements before and after surgery to improve their immune capacity; related to early functional exercise of postoperative patients Guidance, shorten the length of the patient's stay in the hospital, and promote recovery.

#### **4.2 Recommendations for patients with orthopedic surgery**

The training of medical staff should be strengthened to improve the ability of orthopaedic medical and nursing cooperation, and the training materials should be compiled according to the intraoperative cooperation of orthopedic surgery, postoperative and post-operative treatment cooperation, including the preparation of equipment, etc.; choose experienced, skilled and cooperative surgeons Good nurses are required to know orthopedic surgery in advance, communicate with doctors and nurses before surgery, be familiar with the key points of intraoperative cooperation, minimize tissue dissection and traction during surgery, shorten the operation time as much as possible, and write a good summary after surgery; strengthen follow-up communication , timely detection and treatment of abnormal conditions; standard use of antibiotics and other drugs; considering that the pathogenic bacteria are mainly Gram-negative bacteria, which are highly resistant to commonly used clinical antibiotics such as lactams, macrolides, aminoglycosides, etc., it is recommended In the perioperative period, the pathogen detection and drug sensitivity test of patients should be done, and antibiotics should be applied in a targeted manner to ensure drug sensitivity and concentration. Implement the requirements for the prevention and control of nosocomial infection, ensure the sterility of the operating environment, prohibit frequent entry and exit of personnel, strictly control the number of medical staff in the operating room, and reduce microbial settlement; strictly implement the disinfection and isolation management system and aseptic operation technical specifications, and standardize medical care and hygiene Disinfection operations are equipped with effective air purification equipment to improve the air quality of the medical environment and prevent air pollution; strengthen ward management, separate rooms from infected patients after surgery, standardize the incision dressing process, and strictly implement aseptic operations to prevent cross-infection.

## 5. Conclusion

Given the consequences of infection, identification of patient-related risk factors is necessary for risk assessment and information counseling for patients regarding surgical treatment options. There are many related risk factors for postoperative infection in orthopaedics. The current research has the following shortcomings: the sample size is small, the error is large, and the results may be biased; the study only observes early-onset infections, and late-onset infections require follow-up Observation; lack of analysis of the patient's own psychological and mental conditions. In the future, further large-sample, multi-regional, full-factor, large-scale, and prospective studies are needed. It is suggested that a multi-regional joint study or an analysis of current studies can be used to more accurately and scientifically evaluate the role of various related influencing factors. The patient's own factors are unchangeable, but the medical factors can be intervened and corrected, which is worthy of further study by scholars.

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