# **Current State of Chinese Medicine Treatment of Postoperative Edema and Pain in Anorectal Surgery**

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Abstract: As a common clinical disease, the treatment of anorectal disease is mainly based on surgery, but the disease is prone to various postoperative complications such as pain, edema, and urinary retention, especially edema and pain, which not only cause great physical and psychological burden to patients, but also seriously affect the healing of the trauma. The internal and external treatment methods of TCM are unique and effective in relieving patients' postoperative trauma edema and pain. Now we summarize the research studies related to postoperative complications of anorectal diseases in recent years, and discuss the current status of TCM treatment of postoperative edema and pain elements in anorectal surgery, in order to provide better ideas and methods for clinical work.

**Keywords:** Anorectal Diseases, Postoperative Edema, Postoperative Pain, Traditional Chinese Medicine

#### 1. Introduction

Anal diseases, as a common and frequent disease, have a total prevalence of 59.1% in China, including hemorrhoids, anal fistula, perianal abscess and anal fissure, among which the prevalence of hemorrhoids is the highest at 51.56%[1]. These diseases are mostly related to patients' unhealthy lifestyle, dietary habits, defecation habits or psychological factors[2]. The most important treatment option in the clinic is surgery, but in this case it may be closely related to the particular anatomical location of the perineal area as well as preoperative, intraoperative and postoperative factors, while Western medical treatment methods are often monolithic and ineffective. This paper will summarize the factors influencing postoperative edema and pain in anorectal diseases and the current status of Chinese medicine research.

## 2. Chinese Medical Etiology of Postoperative Edema and Pain in Anorectal Disease

The understanding of anorectal diseases by ancient Chinese physicians' dates back to more than 2,000 years ago and has developed over time to form a unique system of understanding and treatment. For example, Tang Rongchuan said in the Theory of Blood Evidence: "All pain is the result of stasis and blood stagnation." The pathogenesis is "stasis is not passable" and "not passable is pain", which is reflected on the surface of the body and leads to persistent local pain. The current surgical treatment is classified as "gold trauma" in Chinese medicine, and gold trauma damages the meridians, which can lead to poor qi-blood flow and stasis of blood, resulting in qi stagnation and blood stasis[3]. Or because the perianal area is often infiltrated by damp-heat and heat toxins, which aggravate the stagnation of qi-blood, the edema and pain are obvious. Local trauma can cause the perianal fluid through the regulation of abnormal, stagnation into swelling, then see the trauma incision skin edge bulging edema [4]. Although the causes of edema and pain in postoperative patients are not exactly the same, patients suffer from Jin and tough injury during surgery, qi and blood deficiency, which more or less affects the local qi and blood running poorly, so Chinese medicine believes that the etiology of postoperative edema and pain in anal diseases is mostly qi and blood deficiency, qi stagnation and blood stasis or damp heat injected into the anus (Figure 1).

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Figure 1: Edema pictures

### 3. Internal Treatment with Chinese Medicine

Chinese medicine believes that human is an organic whole, surgery is easy to damage human qi and blood, causing local qi stagnation and blood stasis, and the site of the disease is special, the postoperative wound is mostly open wound, easily contaminated by external evil or feces and secondary infection, so the dialectical treatment is mostly based on clearing heat and drying dampness, activating blood circulation and removing blood stasis as the basic treatment. Song applied the pain-relieving Ru Shen Tang to postoperative anal swelling pain in patients with hemorrhoid disease and found that oral administration of the soup not only had a definite analgesic effect but also had a low incidence of adverse reactions. Gao Feng[5] applied the herbal medicine E Zi combined with Ma Heng Shi Gan Tang to patients and found that its therapeutic effect was significantly better than that of the control group who took diosmin tablets orally. Cao Rangfu[6] used Tonic Zhong Yi Qi Tang and Western medicine for the treatment of complications and found that the Chinese medicine group had significantly higher efficiency and was better than the Western medicine group in relieving postoperative pain, constipation, bleeding, and edema.

#### 4. External Treatment with Chinese Medicine

The external treatment of Chinese medicine usually includes external fumigation with Chinese medicine, external application of ointment, and anal suppository, etc. These methods can make the medicine reach the disease directly, so as to clear heat and detoxify, move Qi and relieve pain. Zhang ZG et al.[7] treated postoperative hemorrhoid patients with Chinese tonics compared to potassium permanganate solution fumigation sitz bath, and the results showed that the efficiency of the herbal fumigation sitz bath group was significantly higher than that of the control group. Another study also found significant efficacy of herbal fumigation sitz bath treatment in relieving edema and pain[8]. Shen Hongming's self-prepared herbal lotion can inhibit bacterial growth and reduce exudation[9]. Feng Guicheng[10] applied homemade Jinhuang paste externally to treat postoperative pain, after 7 days, the differences were statistically significant when observing the edema and pain scores of the two groups. Zhao[11] applied ointment topical combined with suppository nasal treatment for postoperative edema, and Li Meiqin[12] applied tin type san combined with ointment replacement for the treatment of chronic anal fissure after excision and dilatation with good clinical efficacy and effect on pain.

## **5. Acupuncture Treatment**

Acupuncture is a method of acupuncture or moxibustion of certain relevant points to regulate the flow of qi and blood and improve muscle spasm and pain. In the Ling Shu, it is said that "acupuncture is not suitable for moxibustion", and the combination of acupuncture and moxibustion may better enhance the therapeutic effect. A study[13] found that acupuncture can improve pain threshold, inhibit pain reflex, and suppress inflammatory factor release in the process of promoting wound repair, thus effectively relieving postoperative anorectal pain and promoting wound healing. In observing postoperative patients with anorectal disease, Lin Quanying[14] found that acupuncture combined with herbal fumigation sitz bath could rapidly relax anal tightness due to postoperative stimulation, thus effectively reducing patients' pain. Zhou Juan[15] found that the adverse mood score of the observation group was significantly lower than that of the control group when applying Chinese fumigation combined with acupuncture of hemorrhoid points to relieve pain and edema in postoperative anorectal patients, which may be due to the rapid and significant relief of postoperative pain, edema, and other discomfort symptoms after treatment with this method, thus enhancing their comfort level and enabling

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them to reduce their adverse mood[16]. Electroacupuncture refers to the piercing of a milli-needle into human acupuncture points Wu et al. randomly divided 72 postoperative patients with mixed hemorrhoids into experimental and control groups, and the experimental group was treated with conventional care combined with electro-acupuncture therapy, while the control group was also admitted to the same treatment room and treated with "simulated electro-acupuncture". The VAS score was used to assess the pain level of the patients in both groups, and it was found that electroacupuncture could effectively relieve the postoperative pain and the first defecation pain of the patients, and no serious adverse reactions occurred during the study period, which led to the conclusion that electroacupuncture has significant efficacy in the treatment of postoperative analgesia of hemorrhoids (Figure 2).

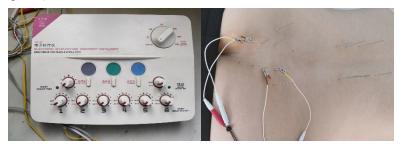


Figure 2: Acupuncture pictures

## 6. Other Therapies

In addition to the above treatment methods, auricular acupressure bean therapy is more commonly used in clinical practice, which uses pills, magnetic beads, or hard, smooth seeds to stimulate some specific points on the surface of the auricle in order to dredge the meridians, harmonize qi and blood, and reduce swelling and pain. Huang YF et al[17] applied auricular pressure therapy with Wang Bu Liuxing seeds in postoperative analgesia of mixed hemorrhoids, and the comparison yielded that the overall pain scores of patients in the auricular pressure therapy group were lower than those in the diclofenac sodium group at 1 d and 3 d postoperatively, and the total dose of analgesics taken was less than that in the diclofenac sodium group, with significant differences. In addition, buried wire therapy and tui-na therapy are gradually becoming clinical options for the treatment of postoperative edema and pain in mixed hemorrhoids. Wang Xiumin[18] gave conventional postoperative care to patients in the control group, while the study group combined meridian point tui-na (Hegu, Neiguan and Quchi points) on this basis, and the comparison of efficacy revealed that compared with conventional care, meridian point tui-na therapy had higher effectiveness, and the average number of local edema and pain were less and The differences were significant.

### 7. Discussion

Oedema and pain are common postoperative complications of anorectal disease, which not only affect the healing of the surgical wound, but also have a great impact on the patient's daily activities and psychology. Western medicine has limited treatment methods in this area and often has more adverse reactions, while TCM treatment focuses on a holistic view and can be better dialectical treatment according to different individuals, which can effectively promote wound healing while relieving edema and pain, and each method can be used in combination to maximize the efficacy, which has been widely recognized and used by doctors and patients. However, Chinese medical methods often have their own standards and are difficult to unify, and the basic research on their therapeutic mechanisms has not yet been fully clarified. Therefore, further experimental exploration by relevant researchers is needed to help Chinese medicine to be better used and play a greater role in future clinical work.

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