

Progress of Wound Margin Edema after Mixed Hemorrhoids in Traditional Chinese and Western Medicine

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Abstract: Hemorrhoids refers to the fusion of varicose veins, connected inside and outside, without obvious demarcation, clinically mixed hemorrhoids, mainly manifested as bleeding, prolapse, pain and anal dampness and anal discomfort. Due to anatomy, surgery, defecation, and wound surface, complications such as wound margin edema, pain, and bleeding may occur after mixed hemorrhoids surgery. Anal edema is one of the typical diseases, accompanied by pain, resulting in the wound healing rate, and then prolong the course of the disease, bringing great physiological pain for patients. This paper will review the progress of traditional Chinese and western medicine after mixed hemorrhoids.

Keywords: After mixed hemorrhoid surgery, Wound margin edema, Research progress.

1. Summary

Anorectal disease refers to the disease that occurs in the anus, rectum and colon. The symptoms and characteristics of the disease are different, including hemorrhoids, perianal abscess, anal fistula, anal fissure, anal pruritus and other diseases. According to the epidemiological investigation, the incidence of the highest resident hemorrhoids is as high as 50.28% [1]. Due to the different parts of hemorrhoids, it are divided into internal hemorrhoids, external hemorrhoids and mixed hemorrhoids. Clinically, mixed hemorrhoids are more common, and external peeling and ligation is the preferred surgical method for patients with mixed hemorrhoids [2].

Mixed hemorrhoids surgery due to anatomy, surgery, defecation, wound surface and other factors, postoperative complications may appear wound margin edema, pain, bleeding, constipation, anal stenosis and other complications. Anal edge edema is one of the typical disease, its disease mechanism is more complex, early often appear anal edema, once improper processing is easy to cause edema, increasing patients with postoperative pain, the wound healing speed slow, then prolong the course, multiple in adults over the age of 20, bring huge physiological pain for patients. This paper will review the research progress of traditional Chinese and western medicine on postoperative margin edema after mixed hemorrhoids, so as to provide clinical diagnosis and treatment ideas of postoperative edema after hemorrhoids.

2. Current Status and Analysis of the Etiology of Traditional Chinese and Western Medicine

2.1 Understanding of margin edema after mixed hemorrhoids

According to the theory of traditional Chinese medicine, postoperative local qi stagnation and blood stasis, internal injury, physical weakness, dampness and heat injection of large intestine can cause anal margin edema after mixed hemorrhoids. For example, "Su · Yin and Yang should be like

big" records: "gas pain, swelling". During the operation, the gold blade damages the meridians of the human body, making the obstruction between the meridians and the local qi and blood, the movement of qi and blood is not smooth and blood stasis, and blood stasis will lead to anal edema and pain. After the operation, patients often have wound pain, fear, anxiety and other emotions, leading to its viscera dysfunction, qi and blood disorders, and then edema. On the one hand, postoperative injury of its vital qi, body qi and blood loss, combined with the mixed hemorrhoids patients most long disease body deficiency, Qi and blood biochemical deficiency, promote weakness, leading to perianal qi and blood block, edema; on the other hand, postoperative skin and flesh local damage, "damp and heat evil" easy to decline, injection anus, qi and blood operation is blocked, resulting in collateral obstruction, anal edge edema.

2.2 Understanding of Modern Medicine on Wound Margin Edema after Mixed Hemorrhoids

Modern medicine believes that anal edema after mixed hemorrhoids is due to local tissue damage, blood, lymphatic circulation disorders, increased vascular osmotic pressure, excessive water retention in the tissue space, causing congestion, edema, bulge and other anal canal and anal skin symptoms. one side, Postoperative injury to the perianal local blood vessels, lymphatic vessels and tissues, Leading to a local traumatic stress response, Stimulate the body to release large quantities of inflammatory mediators, Like tumor necrosis factor (TNF) - α , interleukin (IL) -6, interferon (IFN) - γ , etc. , Injury to the vascular endothelial cells, Increase the body's inflammatory response; on the other hand, Injury injury infection of the local perianal tissue, Further stimulate inflammatory cells to release nitric oxide (NO), bradykinin and other inflammatory mediators, Increase of prostaglandin E2 (PGE 2), substance P (SP) levels in patient serum, Resulting in an increased local inflammatory response, Formation of the anal margin of oedema [3].

2.2.1 Anatomical factors

The anorectal has a special physiological and anatomical structure, which is divided by the tooth line into the upper rectal venous plexus and the lower rectal venous plexus. The upper rectal venous plexus merges into the splenic vein and the portal vein, and the lower rectal vein plexus merges into the inferior vena cava. The two venous plexus communicate near the anal white line to form cavernous veins [4] After surgical treatment, the surrounding venous plexus was destroyed, resulting in the obstruction of blood and lymphatic fluid reflux of the lower rectal vein below the teeth. In addition, due to pain and surgical trauma, the anal sphincter further hindered the blood and lymphatic fluid of the lower rectal vein, retaining the tissue and forming local edema.

2.2.2 Surgical Factors

Preoperative: inflammatory stimulation is often an important cause of anal edema. If the patient has mixed hemorrhoids and inflammation, postoperative inflammation often causes edema; if patients have constipation, enteritis and other intestinal diseases, frequent anal stimulation may cause edema; the incomplete bowel preparation before surgery may pollute the surgical incision, cause infection and lead to local edema; some scholars believe that pelvic congestion in the early menstrual period is also an important factor for postoperative anal bleeding and edema [5].

Intraoperation: intraoperative disinfection is not thorough, incision infection leads to edema; blood transport and nerves near the perianus, anal sphincter, and blood and lymphatic reflux under the trauma of external hemorrhoids or different amount of blood and lymphatic fluid around the perianus can cause edema; oedema with excessive compression and poor incision and drainage are also common causes of intraoperative edema.

Postoperative: anal incision is mostly open wounds, postoperative defecation pollution, incomplete dressing change, improper care and repeated stimulation of inflammation, often lead to persistent infection, wound edema symptoms; postoperative patients get out of bed early, walking too much, incision repeated friction, prone to granulation, higher than the skin; some patients with excessive intraoperative fluid loss, combined with improper diet, constipation, defecation force increased abdominal pressure will also aggravate edema.

3. Prevention and Treatment of Edema after Mixed Hemorrhoids in Traditional Chinese and Western Medicine

3.1 Research Progress of Traditional Chinese Medicine on Postoperative Edema after Mixed Hemorrhoids

3.1.1 Oral drug therapy

TCM shows unique advantages in the treatment of anal margin edema, which can better promote the regression of edema. Therefore, the Chinese medicine for clearing heat, activating blood, reducing swelling and relieving pain is often used in clinic, which plays a better preventive and therapeutic role on anal edema after hemorrhoids surgery. the Huanghe River [6] Such as randomized controlled trial method,

treatment group and control group each 30 patients, two group mixed hemorrhoids after routine treatment, treatment group 1d postoperative Chinese medicine soup 7d, observe the two groups in 1d, 3d, 7d postoperative pain and edema changes, the results show that the soup can effectively improve the mixed hemorrhoids postoperative pain and edema. Wang Dong [7] Observation in patients with mixed hemorrhoids postoperative oral anal soup in the prevention and treatment of wound pain, edema of clinical curative effect, will be 66 cases of mixed hemorrhoids after patients randomly divided into oral anal soup group (observation group) and conventional treatment group (control group), the results show that the soup can effectively reduce postoperative pain, can effectively reduce the incidence of postoperative wound margin edema, effectively reduce edema area, can improve the postoperative stool, prompt patients with soft forming, and can alleviate postoperative frequent defecation, can shorten the patients in hospital stay.

3.1.2 Smoking and sitting bath treatment

Smoking and sitting bath treatment is the characteristic traditional Chinese medicine treatment of anorectal department. It is widely used in clinic for its simple operation, no obvious toxic and side effects, direct effect and outstanding curative effect. Cao Bo, Li Zhi, Yang Le [8] Patients treatment group of traditional Chinese medicine (composition: dandelion, locust sophorae, bitter ginseng, needle, ten, 60g, five, 30g, ice 2g) fumigation treatment, control group 1:5000 potassium permanganate solution fumigation treatment, daily fumigation 1-2 times to wound healing, the postoperative edema subsided time and wound healing time treatment group are significantly shorter than the control group ($P < 0.01$), conclusion Chinese medicine fumigation treatment mixed hemorrhoids postoperative edema and promote wound healing clinical effect is significant, worthy of clinical promotion. Flat colourful autumn [9] Divided into 60 patients into observation group and control group, two groups of patients give Chinese medicine fumigation therapy treatment, observation group patients on the basis of the combination of anorectal characteristic nursing intervention, observation group of mixed hemorrhoids postoperative incision edema regression total effective rate of 86.7%, compared with 76.7% of the control group patients, the difference is statistically significant ($P < 0.05$), Chinese medicine fumigation combined anorectal characteristic nursing treatment mixed hemorrhoids postoperative incision edema has good clinical curative effect, and the safety is higher.

3.1.3 Traditional Chinese medicine ironing therapy

This method is to make the Chinese medicine into evaporation package or heat package, control the temperature level of 45°C, applied in the anal edge edema area, in the heat and Chinese medicine combined stimulation, publicity Cou reason. Under the warm stimulation, the skin of the anal edge through the local-collaterals-meridians-viscera interaction, so that the heat from the surface to the inside, the operation of qi and blood fluid to a more long-term regulation efficiency, restore local blood circulation, can promote the absorption of edema, and then improve the anal edema, shorten the duration of edema [10][11]. Liang Rongyu et al [11] 150 patients after mixed hemorrhoids patients were randomly divided into

group A (evaporation package for 1 h), group B (evaporation package for 4 h), group C (cold package for 1 h), group D (cold package for 4 h), group E (infrared treatment), 30 cases, the study found that the initial temperature is 42°C after evaporation package for 1 h can improve the postoperative wound pain, reduce anal edge edema.

3.1.4 Acupuncture treatment

"Acupuncture a B Jing" recorded "hemorrhoids, the perineal master; hemorrhoids usurp, flying, in the committee and support the Lord". Acupuncture surface acupoints can effectively stimulate the anal perimenstrual qi, and acupuncture has active meridians, detumescence and pain relief, heat and dampness, to achieve the purpose of resolving anal edema. Li yi [12] Other studies show that wrist and ankle needle combined with Chinese medicine laser sitz bath can relieve anal edema and pain in postoperative patients. Jin Xiaotong et al [13] Sixty patients with mixed hemorrhoids pain and wound edema will be randomly divided into eye needle group and 30 patients in each group. It was found that after treatment, the total effective rate was higher than that in the eye needle group; the wound edema in the eye needle group was shorter than that in the body needle group. Moxibustion acts on sores to improve local blood circulation speed, reduce local inflammation symptoms, promote its metabolism, reduce the risk of edema, and help the wound heal as soon as possible; but also reduce the pathogenic bacteria on the wound, thus reducing the incidence of infectious edema [14]. Yao Yuqiao, Xu Longjian [15] Clinical observation of heat-sensitive moxibustion applied to anal edge edema after hemorrhoids, heat-sensitive moxibustion can significantly reduce the symptoms of edema, accelerate the recovery of edema, and promote wound healing. The advantages of TCM acupuncture and moxibustion treatment lie in its small adverse reactions, economic and practical, simple and convenient operation, etc. The disadvantages lie in the high requirements of acupuncture for anorectal doctors. The prohibition of acupuncture points leads to poor efficacy or the phenomenon of acupuncture, bending, bleeding and scald. Acupoint embedding has the stimulating effect of acupuncture and can increase the duration of stimulation [30]. This therapy shows good results on the treatment of many complications (constipation, anal edema, urinary retention, anal pain, etc.), which can reduce the pain caused by postoperative complications, reduce the treatment course, reduce the number of days in hospital, and reduce the economic and mental burden of the patient.

3.1.5 Ear point pressure of beans

Traditional Chinese medicine, ear is qi and blood hundred pulse intersection area, and the body viscera, limbs, tissues, meridians, can respond through the disease of the body, and the related ear to stimulate, can also regulate viscera function, dredge meridians, qi and blood, blood circulation to remove blood stasis, to prevent and treat mixed hemorrhoids postoperative edema. The tape is used to paste the seeds in the most important pain point, which has the effect of facilitating defecation and detumescence, and can effectively regulate the internal circulation of the patient's body and improve the edema state of the incision.

3.1.6 Other Therapy

In clinical practice, Chinese medicine application, suppository application and Chinese medicine enema are also more common. Improper operation of suppository application damages the anus. Chinese medicine enema can be absorbed by the intestine to improve the blood circulation around the anus, but improper operation has the possibility of damaging the intestinal flora. Xiao Tuan has, Li Zhonghai, Wang Rong [16] Add 30 mL of water and 5 mL of honey. After the drug was reduced to 40°C, it was evenly spread on the waterproof tape and applied to the edema site. Compared with the control group, it was found that it could play a better effect in the treatment of edema after hemorrhoids and surgery. Horse tree plum [17] For the effect of perianal fumigation and washing combined with ear point pressing beans on edema, pain and wound healing after mixed hemorrhoids, The treatment group received perianal bath (15g, Aatsu 15g, Misrite 10g, Portslane 15g, Rhubarb, 15g, Pak 15g, Poria cocos 15g, 15g, Yanhuo 15g, 376g, Diyu 15g, Sophora 15g) fumigation and washing combined with bean control, The control group smoked potassium permanganate (concentration 1:5000), Comparing the postoperative edema, pain scores and wound healing time between the two groups, The treatment group was better to the control group in terms of postoperative pain, edema score and healing time ($P < 0.05$), Perianal fumigation and washing combined with ear point pressure beans can reduce the pain and edema symptoms after mixed hemorrhoids, Accelerated wound healing, And it is simple and easy to do, It is worthy of clinical promotion. Jiao Hao et al [18] By comparison with diosmine tablets, the intervention effect of external application of ice-cold nitrate powder on edema after mixed hemorrhoids was observed. Statistical analysis was carried out after observation, and the results showed that the external application of ice-cold nitrate powder played an obvious role in alleviating the degree of anal edema in postoperative patients, and could improve the other complications of patients, which was conducive to the recovery of postoperative wound.

3.2 Research Progress of Modern Medicine on Oedema after Mixed Hemorrhoid Surgery

3.2.1 Oral drug therapy

Oral medication of western medicine should mainly improve the perianal microcirculation, promote lymphatic reflux, reduce blood viscosity, enhance capillary permeability, play the role of promoting blood circulation, removing blood stasis and reducing swelling, and effectively reduce the wound margin edema after hemorrhoids surgery. Wang Dezhong, Wang Liyong, Ding Buguo [19] It was found that oral rhinoceros stream immersion tablets can reduce hemorrhoid edema. Yuan Yuqing [20] (In the patients with postoperative edema, the total effective rate in the treatment group (93.3%) was significantly higher than that of the control group (60.0%). Relevant studies have shown that oral Mailin tablets and Diosamine tablets can reduce wound edema after mixed hemorrhoids [21] [22]. Oral western medicine for patients with anal edge edema after mixed hemorrhoids has the advantages of fast effect, obvious effect and strong pertinence, but there are some adverse reactions.

3.2.2 Topical medication

Western medicine local treatment of anal edge edema after mixed hemorrhoids surgery refers to the antibiotics, antibacterial drugs and other ointment or lotion directly acting on the postoperative perianal edema site. Related studies have shown that the external application of fusidic acid cream and hydrocortisone butycream can significantly improve the anal margin edema after mixed hemorrhoids [23][24]. Xia Yong et al [25] Studies have shown that external application of compound polymyxin B can reduce anal edema and accelerate wound healing.

3.2.3 Physical therapy

In recent years, with the improvement of science and technology, laser, microwave and other therapies have been widely used in anorectal treatment. Zhong Chaoxiang [26] Using photon therapy instrument combined with Chinese medicine sitting bath to treat mixed hemorrhoid edema, the total effective rate reached 97.5%. In addition, the results showed that radiofrequency electrotherapy combined with Chinese medicine sitting bath is more conducive to reduce the edema after mixed hemorrhoids [27]. Zhigang Wang [28] It was found that both helium-neon laser and red light irradiation after mixed hemorrhoids could promote edema regression and accelerate wound healing, but the treatment effect of red light irradiation was more obvious. The effect of physical therapy in the treatment of edema after mixed hemorrhoids is exact, with the advantages of high comfort, no pain and no adverse reactions. The use of physical therapy combined with Chinese medicine fumigation and bath to treat edema after mixed hemorrhoids can greatly improve the clinical effect.

3.2.4 Surgical treatment

Anal edema often occurs after surgery for anorectal diseases. Usually, postoperative treatment is basically absorbed for 10~14d. For patients with postoperative anal edema that has not been absorbed for a long time, surgical pruning and resection should be performed as soon as possible. Surgical method: After local anesthesia, the lower edge of the edema site was pulled with tissue forceps, and a small spindle incision was made in the direction of the tooth line. The skin vegetation and tissue of the edema site were cut off, and both flaps were slightly flattened to facilitate drainage. In patients with thrombosis, the thrombus should be cut open or remove the thrombus. Surgical pruning and resection can directly treat anal edema, quickly and effectively reduce local tissue pressure problems, and promote local blood and lymphatic circulation to reduce swelling and relieve pain. Wu Tao [29] Among 273 patients after mixed hemorrhoid surgery, among which only 7 patients (1. 4%) could not completely disappear after conservative treatment, and were cured after pruning resection under local anesthesia.

4. Summary and Outlook

With the continuous development and progress of modern medical technology, the anal edge edema after mixed hemorrhoids surgery can be treated by more methods, and the curative effect is also significantly improved. Traditional

Chinese medicine not only has the overall concept, but also emphasizes the treatment of local syndrome differentiation, and pays attention to the conditioning of the whole body state. The treatment methods are various, and the curative effect is accurate in clinical application, and the patients are easier to accept. Secondly, patients with anal edema after mixed hemorrhoids have a long recovery time, while the price of Chinese medicine is relatively low, which can reduce the economic pressure of patients. Finally, TCM adverse reactions are few and independent. Of course, the anal edge edema after mixed hemorrhoids treatment of traditional Chinese medicine also has the following deficiencies, such as the dose of traditional Chinese medicine is larger, the taste is bitter, the diagnosis and treatment standard of traditional Chinese medicine is not unified enough, too dependent on personal experience, compared with western medicine treatment, the effect is slow. It is believed that in the future, with the joint efforts of Chinese medicine, TCM will gradually form a perfect diagnosis and treatment standard. At the same time, clinicians should also learn their strengths, fully absorb the strengths of Chinese medicine and western medicine, give play to the advantages of the combination of traditional Chinese and western medicine, and bring greater contributions to patients with anal edema after mixed hemorrhoids.

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