

Research Progress on Common Protocols and Clinical Advantages of Acupuncture and Tuina Therapy for Peptic Ulcer

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Abstract: *Peptic ulcer (PU) is a common digestive system disorder, primarily occurring in the stomach and duodenum. Its pathogenesis is closely related to factors such as auto-digestion by gastric acid and pepsin, Helicobacter pylori infection, use of non-steroidal anti-inflammatory drugs, and stress. Although modern medicine has made significant progress in acid suppression, gastric mucosal protection, and H. pylori eradication, it still faces challenges such as high recurrence rates and drug side effects. Acupuncture and tuina, as complementary and alternative therapies, are important components of non-pharmacological treatment in Traditional Chinese Medicine (TCM). They have accumulated extensive clinical experience in treating PU and possess unique advantages characterized by holistic treatment and a patient-centered approach. This paper aims to systematically review recent common protocols of acupuncture and tuina for PU (including acupoint selection principles, manipulation techniques, acupoint combination patterns, tuina techniques and targeted areas), and based on clinical research evidence, summarize their clinical advantages in alleviating symptoms, promoting ulcer healing, regulating overall bodily functions, reducing recurrence rates, and ensuring safety. The goal is to provide references for clinical practice and related research.*

Keywords: Acupuncture, Tuina, Peptic Ulcer, Common Protocols, Clinical Advantages, Review.

1. Introduction

Peptic ulcer (PU) is currently a common and frequently encountered clinical condition, ranking high among digestive system diseases. It is a general term for gastric and duodenal ulcers [1]. Its clinical manifestations include epigastric pain characterized by periodicity and rhythm, often accompanied by acid regurgitation, belching, localized tenderness in the upper abdomen, and potential neurofunctional syndrome [2]. The onset is usually insidious, the course protracted, and recurrence is common, significantly impacting patients' quality of life. Modern medical treatment recommends bismuth quadruple therapy (proton pump inhibitor + bismuth + two antibiotics) as the primary, empirical regimen for H. pylori eradication (with seven recommended protocols), which is widely accepted clinically [3]. While effective in symptom control, long-term medication may lead to adverse reactions, and issues such as drug resistance or post-treatment recurrence exist in some patients. In TCM, PU falls under the categories of "Epigastric Pain" (Wei Wan Tong), "Acid Regurgitation" (Tun Suan), and "Gastric Discomfort" (Cao Za). Its pathogenesis is often attributed to Liver Qi Stagnation, Spleen-Stomach Deficiency, and Stasis Obstructing the Stomach Collaterals. Acupuncture works by stimulating acupoints along the meridians to harmonize Qi and Blood, thereby exerting effects such as soothing the Liver and regulating Qi, harmonizing the Stomach and relieving pain, fortifying the Spleen and warming the Middle Jiao, and activating Blood and dredging collaterals. It not only regulates the functions of various systems holistically but also improves clinical symptoms and enhances ulcer healing quality, leading to its widespread clinical application. Tuina, through techniques like abdominal rubbing, pressing and kneading Back-Shu points, and digital pressure on specific abdominal areas, promotes gastrointestinal peristalsis and local blood circulation, exerting effects of regulating sinews and bones, and moving Qi and activating Blood. The

combination of acupuncture and tuina can effectively relieve symptoms like epigastric pain and acid regurgitation, improve gastric mucosal damage, and is associated with fewer adverse reactions and higher patient compliance. Particularly in regulating overall functional status and reducing recurrence, it holds potential advantages, making it an effective complementary or alternative therapy with unique value for PU. In recent years, numerous clinical studies have explored commonly used acupoints, technique protocols, and therapeutic efficacy of acupuncture and tuina for PU. This paper systematically summarizes the common acupoints and technique protocols of acupuncture and tuina for PU and analyzes their clinical efficacy and comprehensive advantages.

2. Acupuncture Treatment Protocols Based on Pattern Differentiation

Acupuncture, as a characteristic external therapy of TCM, plays a prominent role in preventing and treating diseases by dredging the meridians and regulating Qi and Blood. It also helps enhance patients' immunity [4]. Acupuncture treatment is applied by selecting corresponding acupoints based on different symptoms and TCM patterns. The top five most frequently used acupoints are Zhongwan (CV12), Zusanli (ST36), Weishu (BL21), Pishu (BL20), and Neiguan (PC6), with Zhongwan and Zusanli serving as the main points [5-6]. The clinically common TCM patterns mainly include the following [7]:

2.1 Liver Qi Invading the Stomach Pattern

Treatment Principle: Soothe the Liver, regulate Qi, harmonize the Stomach, and relieve pain.

Core Acupoint Selection: Taichong (LR3, key point for soothing the Liver), Neiguan (PC6, for relieving chest

stiffness and regulating Qi), Zhongwan (CV12), Zusanli (ST36, for harmonizing the Stomach and descending counterflow Qi).

Combination Rationale: Taichong is used to soothe the Liver and relieve depression, Neiguan to relieve chest stiffness and regulate Qi, and Zhongwan and Zusanli to harmonize the Stomach and descend counterflow Qi. The combination of these four points embodies the TCM treatment philosophy of “treating from the Liver, addressing both Liver and Stomach simultaneously, and regulating both Qi and Blood”.

Needling and Moxibustion Method: Needling techniques primarily use drainage (Xie) method, or even supplementation and drainage (Ping Bu Ping Xie).

2.2 Spleen-Stomach Deficiency-Cold Pattern

Treatment Principle: Warm the Middle Jiao, fortify the Spleen, dispel Cold, and relieve pain.

Core Acupoint Selection: Zhongwan (CV12, Front-Mu point of the Stomach), Zusanli (ST36, He-Sea point and Lower He-Sea point), Pishu (BL20), Weishu (BL21, Back-Shu points), Guanyuan (CV4, for warming and supplementing Original Qi).

Combination Rationale: Among this group, Zhongwan and Zusanli represent a classic example of the “He-Mu Combination” (combining a He-Sea point with a Front-Mu point). This is one of the most frequently used and classic acupoint pairs in clinical acupuncture for all stomach disorders (whether deficiency or excess patterns). Their combination has shown significant effects in improving gastrointestinal symptoms, regulating gastrointestinal function, and preventing stress ulcers [8-9]. Pishu, Weishu, and Zhongwan constitute the main framework of the “Shu-Mu Combination” (combining Back-Shu and Front-Mu points), directly focusing therapeutic energy on the Spleen and Stomach organs, forming the targeted core for addressing the inherent weakness of the Spleen and Stomach.

Needling and Moxibustion Method: Both acupuncture and moxibustion are applied, with emphasis on moxibustion, often using warm needle moxibustion or ginger-partitioned moxibustion.

2.3 Blood Stasis Obstructing the Collaterals Pattern

Treatment Principle: Activate Blood, resolve stasis, dredge collaterals, and relieve pain.

Core Acupoint Selection: Geshu (BL17, Hui-Meeting point of Blood), Xuehai (SP10, key point for activating Blood), Ashi points (tender points on the body surface corresponding to the ulcer), Zusanli (ST36, to support healthy Qi and assist in activating Blood).

Combination Rationale: (Content placeholder, as per original document structure)

Needling and Moxibustion Method: Needling techniques

may use the drainage method, or pricking and cupping.

2.4 Analysis of Universally Effective Key Acupoints:

The combination of Zusanli (ST36), Zhongwan (CV12), and Neiguan (PC6) is regarded as the “Golden Triangle” for treating PU because: (1) From the perspective of TCM theory: They form a three-dimensional, synergistic therapeutic matrix from the aspects of meridian circulation, Qi and Blood ascending and descending, organ interrelationships, and emotional regulation. This perfectly corresponds to the complex pathogenesis of PU, characterized by “Root Deficiency and Manifestation Excess, intermingled Cold and Heat, Qi Stagnation and Blood Stasis, and Liver-Stomach Disharmony.” (2) From the perspective of modern science: Their efficacy is supported by multidimensional research. Their mechanisms of action cover the core pathophysiological links in PU development (attack-defense imbalance, motility disorder, neural dysregulation, pain), reflecting the therapeutic advantages of acupuncture in “holistic regulation and activating self-healing.” Therefore, the “Golden Triangle” is not merely empirical point selection but a core prescription for “treating both Root and Manifestation,” grounded in profound traditional wisdom and modern scientific evidence, holding an irreplaceable central position in the acupuncture treatment of PU.

3. Tuina Manipulation Techniques and Target Areas

Tuina, as one of the traditional Chinese external therapies and an important branch of Tuina studies, is particularly adept at regulating Spleen and Stomach disorders. It achieves the goal of treating digestive system diseases by applying mechanical stimulation to directly regulate the Spleen and Stomach organs and their corresponding meridians [10-11].

3.1 Abdominal Tuina (Core Area)

Techniques and Sequence: The patient lies supine. 1) Rubbing (Mo Fa): Using the palm, rub the entire abdomen clockwise with the umbilicus (Shenque, CV8) as the center for 5-10 minutes, aiming to warm and unblock Fu-organ Qi. 2) Kneading (Rou Fa): Use finger or palm kneading on points like Zhongwan (CV12) and Tianshu (ST25) for 1-2 minutes per point. 3) Pressing (An Fa): Apply slow, deep pressure on points like Zhongwan (CV12) and Qihai (CV6) until a sensation of Qi arrival (De Qi) is achieved.

Effect: Acts directly on the affected area to regulate Qi, harmonize the Middle Jiao, and relieve acute pain.

3.2 Back Tuina (Important Adjunct)

Techniques and Areas: The patient lies prone. 1) One-Finger Meditation Pushing (Yi Zhi Chan) or Pressing-Kneading (An Rou Fa): Applied along the Bladder Meridian on Back-Shu points such as Ganshu (BL18), Danshu (BL19), Pishu (BL20), and Weishu (BL21). 2) Scrubbing (Ca Fa): Transverse scrubbing over the area from Pishu (BL20) to Weishu (BL21) until a sensation of penetrating warmth is achieved.

Effect: Regulates organ functions and invigorates Yang Qi.

3.3 Digital Pressure on Limb Acupoints (Synergistic Enhancement)

Techniques: Apply digital pressure or press-knead on distal acupoints such as Zusanli (ST36), Neiguan (PC6), Taichong (LR3), and Gongsun (SP4) for 1-2 minutes per point, aiming for a sensation of soreness and distension (De Qi).

Effect: Exerts remote therapeutic effects and strengthens overall regulation.

4. Research Progress on Clinical Advantages of Acupuncture and Tuina for Peptic Ulcer

4.1 Alleviating Clinical Symptoms

Multiple clinical observations indicate that acupuncture and tuina can rapidly and effectively relieve symptoms caused by PU, such as epigastric pain, fullness, acid regurgitation, and belching. A randomized controlled trial involving 80 patients with duodenal ulcer found that electroacupuncture at points including Zusanli (ST36), Zhongwan (CV12), and Neiguan (PC6) combined with conventional medication was superior to medication alone in both the time to pain relief and the degree of relief ($P < 0.05$) [12]. Tuina, through direct physical stimulation of the abdomen and the application of low-frequency vibration techniques, can relieve spasms in abdominal muscles and gastrointestinal smooth muscles, promoting the recovery of gastrointestinal function [13]. Its immediate analgesic effect is often recognized by patients.

4.2 Promoting Ulcer Healing

Research suggests that acupuncture stimulation can improve gastric mucosal blood flow, enhance mucosal barrier function, and promote tissue repair. A meta-analysis synthesizing 15 RCTs on acupuncture as an adjunctive therapy for PU showed that acupuncture combined with Western medicine was significantly superior to Western medicine alone in terms of ulcer healing rate under gastroscopy (RR=1.17, 95% CI: 1.10-1.25) [14]. Another study comparing catgut embedding at acupoints with oral omeprazole found no statistical difference in ulcer healing rates after 6 weeks of treatment, but the catgut embedding group showed better improvement in symptom scores [15].

4.3 Holistic Regulation and Improvement of Pathophysiological State

4.3.1 Regulating Gastric Acid Secretion and Gastrointestinal Motility

Studies confirm that needling Zusanli (ST36) can bidirectionally regulate gastric acid secretion, suppressing pathological hypersecretion. Simultaneously, acupuncture and tuina can regulate gastrointestinal hormones (e.g., reducing gastrin, promoting motilin secretion), thereby regulating gastric acid secretion and gastrointestinal motility to improve gastrointestinal function [16].

4.3.2 Anti-Helicobacter pylori (Hp) Effect

Although acupuncture and tuina cannot directly kill bacteria,

they may enhance the eradication efficacy of antibiotics against *H. pylori* by improving the gastric environment and regulating immune function. Clinical reports indicate that acupuncture combined with triple therapy can improve the *H. pylori* eradication rate [17]. Warm reinforcing needling technique (Re Bu Zhen Fa) has shown definite efficacy in treating peptic ulcer, potentially leading to better *H. pylori* eradication rates and better symptom relief, making it suitable for PU treatment [18].

4.3.3 Regulating the Neuro-Endocrine-Immune Network

Research demonstrates that acupuncture, while not altering the morphology of diseased tissues or directly eliminating pathogenic factors, can regulate cytokine expression levels, promote cellular immune function, and thereby influence the neuro-endocrine-immune network. This achieves effects such as reducing tissue damage and pain, alleviating stress responses, and lowering ulcer recurrence risk. Its regulatory effects on immune cell activity and cytokines also participate in mucosal protection, contributing to its effect of “enhancing the body’s immunity” and fulfilling its role of “harmonizing Yin and Yang, and supporting healthy Qi to eliminate pathogens” [19].

4.4 Reducing Recurrence Rate with Apparent Advantage

The high recurrence rate of PU is a therapeutic challenge. Acupuncture and tuina, through holistic regulation and constitution improvement, show potential in preventing recurrence. A one-year follow-up study found that PU patients receiving periodic acupoint catgut embedding for consolidation therapy had a significantly lower recurrence rate than patients who received only standard drug therapy and had discontinued medication [20]. Tuina also helps reduce recurrence through long-term regulation of Spleen and Stomach function.

4.5 High Safety and Few Side Effects

Acupuncture and tuina belong to physical therapies, avoiding potential side effects associated with medications, such as liver/kidney burden and intestinal flora imbalance. With standardized operation, adverse reactions (e.g., needle fainting, local hematoma, subcutaneous bruising) are rare and minor. Patient acceptance is high, making them particularly suitable for patients unsuitable for long-term medication or intolerant to drugs.

5. Summary and Prospects

Acupuncture and tuina therapy for PU possesses systematic theoretical foundations, mature protocols, and confirmed clinical efficacy, making it an important clinical treatment modality. Current research confirms that acupuncture and tuina for PU are characterized by diverse protocols (body acupuncture, electroacupuncture, moxibustion, tuina, etc.), multi-level action (combining local and holistic effects), definite efficacy, and high safety. Their common protocols revolve around core points like Zusanli (ST36), Zhongwan (CV12), Neiguan (PC6), Pishu (BL20), and Weishu (BL21), combined with pattern-differentiated flexible point selection and technique application. Clinical advantages are evident not

only in symptom control and ulcer healing but also in their long-term benefits of holistic functional regulation and recurrence reduction. However, existing research still has some shortcomings: some studies have relatively small sample sizes; well-designed, multi-center, large-sample, randomized double-blind trials are still lacking; standardized and optimized parameters for acupuncture/tuina techniques (e.g., stimulation intensity, frequency, treatment course) are not uniform, and long-term follow-up data is insufficient; modern scientific research on mechanisms needs to be deepened, especially regarding specific signaling pathways and brain-gut axis interactions. Future research directions should include: conducting higher-quality prospective clinical studies to clarify optimal treatment protocols (including acupoint combinations, intervention parameters, treatment courses); utilizing technologies like functional MRI, genomics, and metabolomics to deeply elucidate their action targets and network mechanisms; exploring the optimal integration models of acupuncture/tuina with modern medical treatment protocols (e.g., standard H. pylori eradication regimens); and developing standardized clinical operation guidelines to promote their wider application.

6. Conclusion

In summary, acupuncture and tuina are effective methods for treating peptic ulcer. Their common protocols are based on TCM theory and have a solid foundation in clinical practice. A substantial body of clinical research indicates their significant advantages in alleviating symptoms, promoting healing, holistic regulation, reducing recurrence, and ensuring safety. As an important component of a comprehensive treatment system, acupuncture and tuina deserve further promotion and application in clinical settings. Future efforts should focus on deepening understanding and optimizing protocols through more rigorous research to better serve the health management of PU patients.

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