

## *Clinical Research*

### **Banxiashengjiangdaizheshi decoction combined with warm acupuncture in the treatment of 10 cases of postoperative gastroparesis of gastric cancer**

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#### **Highlights:**

Banxiashengjiangdaizheshi decoction combined warm acupuncture have the function of invigorating stomach and removing turbid, warming yang and lowering reverse.



## Abstract

**Objective:** To study the treatment of postoperative gastroparesis in patients with gastric cancer.

**Methods:** 18 patients with gastroparesis after gastric cancer surgery were divided into two groups, including 10 patients in the observation group and 8 patients in the control group. The observation group was treated with traditional Chinese medicine combined with warm acupuncture and moxibustion, and the control group was treated with western medicine.

**Results:** After 7 days treatment, there was significant difference in cure rate and total effective rate between the two groups ( $P < 0.01$ ), and the treatment group was obviously superior to the control group.

**Conclusion:** Traditional Chinese medicine combined with warm acupuncture is effective in the treatment of postoperative gastroparesis of gastric cancer.

**Key words:** Gastroparesis, TCM, Warm acupuncture, Gastric cancer

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## Abbreviation

TCM, Traditional Chinese medicine.

## Competing interests:

The authors declare that there is no conflict of interests regarding the publication of this paper.

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## Introduction

The name of warm acupuncture first appears in the *Shanghanlun* (A.D. 150-229, the late Eastern Han Dynasty). This method flourished in Ming Dynasty, and was described in the *Zhenjiujuying* and *Zhenjiudacheng*. It has the effect of warming the meridians and promoting the flow of Qi and blood [1]. Banxiashengjiang decoction comes from Reizheng huoren (A.D. 960-1127, Song Dynasty), the main treatment was warm stomach and reduce pain. After that, Banxiashengjiang decoction was recorded to treat abdominal distension [2]. In addition, Zhang Xichun, a famous doctor in modern time, was good at applying Dazheshi to treated the stomach disease. I obtained the Banxiashengjiangdaizheshi decoction, which was applied to the clinic and obtained some curative effect. Combined with warm acupuncture and moxibustion therapy, clinical application to obtain a certain effect, introduction as follows, I would like to ask your colleagues to correct it as follows.

## Methods

### Treatment methods

In the observation group, 10 patients were treated with Banxiashengjiangdaizheshi decoction combined with warm acupuncture at Zusanli acupoint (ST36). The prescription of Banxiashengjiangdaizheshi decoction: 10g Banxia, 16g Shengjiang, 30g Daizheshi, 3g Renshen and 6g Chenpi. Above a daily dose, with traditional Chinese medicine (TCM) pharmacy in our hospital tisanes machine boiling water for 1 hour, each agent take head juice, juice 150 ml, points of middle-late early oral three times and have stomach tube to the stomach tube clip 30 minutes after injection, easy to vomit, to the repeated small intermittent dosing, and cooperate with the acupuncture double parapodium three mile point, after qi retaining needle, local acupuncture moxibustion for 10 minutes; In the control group, the western drug domperidone tablets (Xian-Janssen Pharmaceutical Ltd) were taken orally 20 minutes before meals, 10mg each time, 3 times a day. Both groups took 7 days as a course of treatment, and the efficacy was summarized after one course of treatment.

### Efficacy criteria [5, 6]

Cure: the symptoms and signs disappeared, nausea and vomiting disappeared, the stomach was improved, gastric motility was normal, b-mode ultrasound suggested normal gastrointestinal motility; Effective: symptoms and signs were alleviated, and gastric peristalsis was restored, but less than 2 times

per min, b-mode ultrasonography indicated that gastric peristalsis was enhanced compared with that before treatment, but was lower than normal. Ineffective: no change in symptoms, signs and gastric motility before and after treatment.

## Results

### General information

In this study, a total of 18 patients were recruited from the surgical inpatient department of our hospital, including 10 patients in the treatment group and 8 patients in the control group. The patients in both groups met the diagnostic criteria [3, 4] of gastric palsy after gastric cancer surgery: the clinical manifestations were upper abdominal distension and vomiting after removing the gastric tube or starting to eat. The initial symptoms were biliary gastric juice, and the later symptoms were light brown liquid. Water-soluble contrast agent was used for gastric angiography, which showed no peristalsis in the stomach and the anastomotic site could not be passed. Gastroscopy showed obvious edema and hyperemia at the anastomotic site, as well as frequent hyperemia or shallow erosion in the gastric mucosa, but no mechanical obstruction of gastric outflow tract was found.

The age, gender, type of anastomotic site and lesion site of the two groups were compared as shown in table 1, with no significant difference ( $P > 0.05$ ) after statistical treatment, which was comparable. After 7 days treatment, there was significant difference in cure rate and total effective rate between the two groups ( $P < 0.01$ ), and the treatment group was obviously superior to the control group (Table 2).

## Discussion

Gastroparesis is a common postoperative complication of gastric cancer. The incidence reported in our country is about 0.5 to 24% [7]. It refers to the syndrome of gastric motility disorder caused by non-mechanical obstruction after operation, which is mainly characterized by gastric emptying disorder. The main clinical manifestations are nausea, vomiting, epigastric fullness, discomfort and intractable hiccup [8, 9]. The pathogenesis of the disease has not yet been fully defined. Most scholars believe that it is associated with vagotomy, antrum resection, postoperative duodenal reflux, tension-free or anastomotic edema of the remnant stomach, psycho-psychological factors, and decreased immune function. Diabetes, *et al.* once gastroparesis occurs, it often lasts for weeks, months or more [10, 11]. There is still no effective treatment for gastroparesis [12].

Table 1 Comparison of general data between the two groups

| Case              | Number of cases<br>(male/female) | Age (average age)             | Type of anastomosis | Pathological changes   |
|-------------------|----------------------------------|-------------------------------|---------------------|--|
| Observation group | 10 (7/3) *                       | 35~88<br>(67.5<br>years old)* | bi I/bi II (6/4)*   | Gastric antrum 5,<br>Gastric angle 2,<br>Gastric body 2,<br>Cardiac 1* |
| Control group     | 8 (5/3)                          | 44~85<br>(65.6<br>years old)  | bi I/bi II (4/4)    | Gastric antrum 4,<br>Gastric body 3,<br>Gastric angle 1                |

**Note:** Compared with the control group, \*  $P > 0.05$ .

Table 2 comparison of treatment results between two groups

| Case              | Cure | Effective | No avail | Cure rate | Total effective rate |
|-------------------|------|-----------|----------|-----------|----------------------|
| Observation group | 5    | 4         | 1        | 50%*      | 90%*                 |
| Control group     | 1    | 2         | 5        | 12.5%     | 37.5%                |

**Note:** Compared with the control group, \*  $P < 0.01$ .

Mainly to promote gastric motility drugs, symptomatic treatment, correction of water-electrolyte disorders, fasting, parenteral nutrition support, jejunum tube enteral nutrition, *etc.* the treatment time cycle is longer, and the curative effect is uncertain. Conservative in effectors may also face reoperation for total gastrectomy [13]. The therapeutic effect of warming acupuncture combined with TCM is more precise, and its mechanism is related to its bi-directional regulation of human immunity, coordination of gastrointestinal peristalsis function, reduction of postoperative anastomotic edema, regulation of neural function, and so on [2, 14, 15].

According to TCM, spleen is dominated by movement, stomach is controlled by descending. "Internal injury to spleen and stomach, every disease is caused by disease", "stomach Qi is born, no stomach Qi is dead", spleen and stomach function is considered to play an important role in TCM, and it is "acquired foundation". The function of spleen and

stomach is of great importance in TCM, and the function of spleen and stomach plays an important role in Chinese medicine. Banxiashengjiangdaizheshi decoction has the function of invigorating stomach and removing turbid, warming yang and lowering reverse. It is the main prescription to treat the deficiency of stomach yang after operation and the non-decline of stomach qi. Banxia, the skin of tangerine, dry and moist stomach, Shengjiang warm Yang stomach to stop nausea, Daizheshi slight cold, heavy down and stop vomiting, the whole prescription uses cold and heat, replenish diarrhea and apply both, there is a rise and fall. Combined with bilateral Zusanli (ST36) point warming acupuncture, smooth Yangming meridian, speed up the Yangming meridian, improve immunity, so that the postoperative Qingyang to rise, turbid Yin to lower, it is remarkable effect, repeatedly trial.

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