

Clinical research progress of acupuncture in the treatment of constipation after stroke

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Abstract: Purpose: Constipation is one of the most common complications of stroke. Acupuncture has a good clinical effect. By searching Chinese databases such as CNKI, Weipu and Wanfang, the search terms were "acupuncture", "stroke", "constipation" and "defecation disorders", and summarized the clinical research progress of acupuncture in the treatment of constipation after stroke from four aspects: proximal point selection, distant acupoint selection, dialectical acupoint selection and symptomatic point selection, and provided some new ideas for the clinical treatment of constipation after stroke.

Keywords: Acupuncture; constipation after stroke; Review

Stroke is the disease with the highest disability and mortality rate in China, and constipation is one of the most common complications of stroke. Post-stroke constipation is based on a history of previous cerebrovascular accidents, and the number of voluntary defecation movements of patients is a recurrent disease, which is mainly manifested by a few times, difficult defecation, and dry and hard texture. Constipation after stroke increases the chance of secondary stroke, reduces the quality of life of patients, and seriously affects the recovery process [1]. Constipation after stroke is mainly promotive and cathartic, and there are many adverse reactions [2], while acupuncture can adjust the internal organs and unblock the meridians, and improve the symptoms of constipation after stroke. Therefore, acupuncture to maintain smooth bowel movements is closely related to the prognosis of patients after stroke, which is an important part of their fine management [3]. The efficacy of acupuncture in the treatment of post-stroke constipation is remarkable, and the research progress of acupuncture in the treatment of post-stroke constipation in the past 20 years is summarized as follows.

1. Treatment of post-stroke constipation by proximal acupoint selection

1.1 Ba Liao acupoint

The anatomical position of the Ba Liao acupoint is suitable for the 1-4th posterior sacral foramen in order, and the posterior sacral foramen connects with the pelvic cavity by the anterior sacral foramen forward, adjoins the sacral canal inward, and the gluteal cutaneous nerve and arteriovenous branches can stimulate the parasympathetic nerve, mobilize intestinal motility and enhance intestinal peristalsis. Therefore, acupuncture is a wise way to treat constipation after stroke. Chen Ziqing [4] randomly divided 66 patients with constipation after stroke into experimental group and control group with 33 cases, all of whom were selectively given conventional basic treatment in accordance with the 2010 edition of the "Chinese Guidelines for the Prevention and Treatment of Cerebrovascular Diseases" [5], in which the experimental group was acupunctured by acupuncture of the Ba Liao acupoint, the acupuncture points were selected from the upper hip, the lower hip, the middle hip, and the lower hip, and the needle was left for 30 minutes, during which the needle was performed three times, the control group was routinely acupunctured, and the acupuncture points were selected from the Large intestine Shu, Tian Shu, Shang Ju Xu, Zhi Gou, Both groups of patients were treated for 5 consecutive days, with 2 days of rest, and 2 weeks was 1 course of treatment, a total of 2 courses. By comparing the clinical score scale (CCS) and quality of life scale (PAC-QOL) scores of constipation patients in the experimental group and the control group, the results show that the clinical efficacy of acupuncture on the symptom improvement and constipation function activity after stroke are better than that of conventional acupuncture. Huang Liangyu [6] divided 90 patients into control group and experimental

group by randomly selecting numerical groups, and the control group selected conventional acupuncture points of bilateral TianShu, Zhi Gou ShuiDao, GuiLai, and FengLong, once a day, for five consecutive days, two days off, for a total of 10 days. The patients in the experimental group selected the Ba Liao acupoint for general acupuncture treatment, and the treatment plan was the same as that of the control group. The TCM symptom score, constipation life treatment questionnaire, and quality of life scale (PAC-QOL) score and clinical efficacy of constipation patients were compared. The results showed that the Ba Liao acupoint could advance the first bowel movement time of patients after stroke, shorten the interval between bowel movements, and increase the defecation speed compared with ordinary acupuncture points.

1.2 Tun four needles

Proximal acupuncture refers to the taking of acupuncture points locally and adjacent to the painful area. It is based on the proximal acupoint to treat the body surface symptoms more obvious, the disease symptoms are more limited. Zhou Muhan^[7] randomly divided 60 patients with post-stroke constipation into 2 groups, namely 30 cases in the control group and 30 cases in the experimental group. The control group was given acupuncture to the Ba Liao acupoint, and the experimental group was given acupuncture "Tun four needles", The specific acupuncture point is 1 inch next to the end of the gluteal groove near the tailbone, 1 acupoint on the left and right, and the two inches below this acupoint are the second group of acupuncture points, a total of four acupuncture points. All groups were treated for 28 days. The score was based on the "Evaluation of Constipation Symptoms and Efficacy" formulated by the Anorectal Surgery Group of the Surgical Branch of the Chinese Medical Association in 2005^[8], and the evaluation criteria of the "Guidelines for Clinical Research of New Chinese Medicines (Trial)"^[9]. The results showed that the degree of constipation, fecal characteristics, defecation time, stool feeling, interval time and treatment response rate of the experimental group after treatment were better than those of the control group. It showed that acupuncture "Tun four needles" was more effective in treating constipation after stroke than acupuncture Ba Liao acupoint, and could better improve the symptoms of constipation after stroke.

1.3 Abdominal needle

Studies have found that there are also many gastrointestinal hormones in brain tissue, and some scholars have proposed a neuro-immune-endocrine network, which improves the physiological and pathological processes of the gastrointestinal tract and has a significant impact on brain function and behavior^[10]. The brain-gut axis acts as a network system with a bidirectional pathway, which is regulated bidirectionally by acupuncture. Secondly, there are many important organs, nerves, blood vessels, etc. in the abdominal cavity, which play a role in connecting the flow of qi and blood throughout the body. Wu Lian^[11] randomly generated 49 numbers from 49 patients with post-stroke constipation according to a random number table and randomly divided them into abdominal needle group (experimental group) and lactose group (control group). The trial group used abdominal acupuncture, ordinary acupuncture and basic therapy, Abdominal needle selection point: main acupoint: Induced gas return group (Zhong Wan, Xia Wan, Qi Sea, Guan Yuan), bilateral TianShu acupoint; Auxiliary points: bilateral Hua Rou Men, Wai Ling; Upper rheumatic point (0.5 inches on the left Hua Rou Men and 0.5 inches next to it), lower rheumatic point (2.5 inches next to the left Air Sea), bilateral Huang Shu acupuncture points. Leave the needle for 25 minutes, once a day, 1 course of treatment every 6 days, a total of 2 courses. The control group used lactulose group, ordinary acupuncture and basic therapy, oral or nasal feeding lactulose oral solution, the starting dose was 30ml per day, with breakfast and dinner, and the maintenance dose was 15ml per day from the 2nd day, with breakfast. Basic therapy, general acupuncture, and treatment were the same as the experimental group. The results showed that the difference in clinical symptom score (CCS) of constipation, the difference in clinical neurological deficit (CSS) score of stroke, the difference in cognitive function disorder (MOCA) score, and the stool trait classification (BSFS) of the experimental group before and after treatment were better than those in the control group. The results showed that abdominal needle was superior to lactulose group in improving constipation symptoms, stool classification of stool characteristics, promoting the repair of neurological deficits, and improving cognitive function. Xiong Jinhua^[12] randomly divided 70 patients with post-stroke constipation into experimental group and control group with 35 cases, and both the experimental group and the control group were given basic conventional treatment. Experimental group selection points: upper focus area: DanZhong to ShenTing upper 1/3 and lower 1/3, upper 6 inches of the umbilicus (Ju Que acupoint) each take one acupoint, and the left and right side of the 0.5 inch take each point; the middle focus area: Shang Wan to ShenQue upper 1/3

and lower 1/3, each take one acupoint, and take an acupoint 0.5 inches on the left and right sides, the lower focal area: Shen Que to Qu Gu upper 1/3 and lower 1/3, each take one acupoint, and take an acupoint 0.5 inches on the left and right sides. The main acupoints of the control group were selected: TianShu, ZhongWan, ZhiGou, ZhaoHai, and ShangJuXu; Matching acupoints: ZuSanli, Qi Hai. The results showed that the clinical symptom score, quality of life scale score and modified Barthel index rating scale of constipation in the experimental group were better than those in the control group, and the total effective rate of the treatment group was also better than that of the control group, indicating that abdominal acupuncture treatment was better than ordinary acupuncture.

2. Treatment of post-stroke constipation by distal acupoint selection

2.1 DONG 's extraordinary acupoints

Distal acupoint selection refers to the selection of acupoints that are far away from the pain. The basis of this principle of acupoint selection is that acupoints have the characteristics of distant treatment, It embodies the treatment law of "where the meridians pass, where the main treatment goes". Wang Zhijie [13] randomly divided 74 patients with constipation after stroke into experimental group and control group with 37 cases. The experimental group used DONG 's extraordinary acupoints combined with balance needle to add and subtract. Take acupoints: Qi Men, Qi Jiao, balance needle acupoints: Tong Bian acupoint, The rest of the acupuncture points are added and subtracted according to the dialectics. The control group was treated with lactulose oral solution, 25ml per day, once oral at breakfast, and continuously taken for 10 days. The results showed that the average time of first bowel movement 2 weeks after treatment in the experimental group was 28.56 ± 14.13 , which was lower than that of 45.07 ± 23.28 in the control group 2 weeks after treatment. The difference in constipation score in the experimental group before and after 2 weeks of treatment was 7.05 ± 0.45 , and the difference in constipation score in the control group before and after 2 weeks of treatment was 5.57 ± 0.79 . At the 4-week follow-up after the end of treatment, the constipation score of the experimental group was 5.13 ± 1.65 , and the constipation score of the control group was 7.22 ± 1.97 , and the total effective rate of the experimental group was 89.19%, which was greater than that of the control group of 75.68%, indicating that acupuncture was effective in treating constipation after stroke, and the long-term efficacy was better than that of oral lactulose oral solution.

2.2 Meridian interconnection acupuncture method

Sun Simiao, the medicine king of the Tang Dynasty, first mentioned that "the lungs and intestines are on the surface" [14]. The lungs and the large intestine are formed through the surface relationship of meridians, and the Organs and intestines are functionally related. In the surface of the lungs and the large intestine, the decline function of lung qi is conducive to the exertion of the conduction function of the large intestine, and the normal exertion of the conduction function of the large intestine is also conducive to the decline of the lung. Liu Orange [15] randomized 64 patients with post-stroke ShiZheng constipation into experimental group and control group, with 32 cases each. The control group selected bilateral Tian Shu, Zhi Gou acupoints. The rest of the acupuncture points are dialectically added and subtracted. After the needle is inserted, the Xie method is applied, and the needle is left for 50min, once a day, and the treatment is continuous for 14 days. The experimental group was taken on the basis of the control group, taking Bilateral He Gu, Pian Li, Lie Que, Chi Ze; The needle method, retention time and course of treatment were the same as those of the control group. According to the "Standards for the Diagnosis and Efficacy of Traditional Chinese Medicine Certificates" issued by the State Administration of Traditional Chinese Medicine in 1994 [16], the severity of symptoms of patients with constipation was evaluated. The results showed that the first bowel movement time, stool interval and bowel movement rate of the experimental group after treatment were better than those of the control group.

2.3 Brain-gut interactive acupuncture

Traditional Chinese medicine emphasizes the holistic concept, with the Tibetan elephant theory as the core, the brain and intestines meridians are connected, the brain-gut meridians are connected, generating nourishment, and the Shen are united, Among them, meridian communication is the foundation, generation and nourishment are the guarantee, and the Shen are unified as a whole [17]. The

brain can be treated with acupuncture in the intestine^[18], The intestine can be treated with acupuncture in the brain^[19]. Zhong Yue^[20] et al. randomly divided 60 patients with post-stroke constipation into experimental group and control group, with 30 cases in each group. The control group was given oral solution of lactulose, The experimental group was treated with acupuncture to regulate Shen prescription. Take acupoints: Bai Hui, Si Shen Cong, Shen Ting, Yin Tang, Bilateral Nei Guan, Bilateral He Gu and Zu San Li and San Yin Jiao and Tai Chong, Zhong Wan, Bilateral TianShu, GuanYuan. A total of 4 weeks of treatment. The results showed that the experimental group was significantly better than the control group in improving the CSS score and the efficacy and with acupuncture to regulate Shen prescription after stroke could significantly improve the constipation symptoms of patients, and the clinical effect was significant.

3. Treatment of post-stroke constipation by dialectical acupoint selection

3.1 Ziyin Runchang Tongbian acupuncture prescription

Patients with Yin deficiency after stroke are clinically affected by "internal deficiency and evil", and stroke disease is more common in people over 40 years old. Such people have kidney qi decline, yang qi gradually fails, liver qi is weak, muscles and bones are not as flexible as before, TianGui is depleted, the Jing Qi is less, and the kidneys are weak. The physiological characteristics of middle-aged and elderly people are fulfilled, Its main internal pathogenesis is the gradual loss of kidney yin, yin deficiency and heat, fluid consumption and injury, dry bowels, dry and hard stool, resulting in constipation. Wei Yuyue^[21] randomly divided 60 patients with post-stroke constipation into experimental group and 30 cases in the control group. The experimental group received acupuncture, Acupuncture point selection is Tai Bai, San Yin Jiao, Tai Yuan, Zhao Hai, Tai Xi, to nourish yin and nourish qi. The control group was given oral Rou Cong Rong solution, The criteria for judging the efficacy refer to the "Guidelines for Clinical Research of New Chinese Medicine in the Treatment of Constipation". The results showed that the interval between bowel movements, duration of defecation, degree of stool quality, stool effort and total effective rate of the experimental group after treatment were better than those of the control group. The experimental group was superior to the control group in improving clinical symptoms.

3.2 Tongtiao Sanjiao, Yiqi Ziyin Acupuncture Prescription

The occurrence of stroke is mainly caused by internal injury accumulation, excessive emotional consciousness, poor diet and fat body, etc., which cause San Jiao Qi disorders, Qi accumulates into fire, blockage of the intestines, fluid consumption, dry stool and constipation. Cao Tiemin et al.^[22] randomly divided 50 patients with post-stroke constipation into 30 cases in the acupuncture test group, take acupoints: ZhiGou, QiHai, TianShu, ZuSanLi, ShangJuXu, SanYinJiao. Treatment is done once a day. In the control group, 20 patients orally administered Bisacodyl Enteric-coated tablets 5 mg once a day. Both groups were treated for 7 days, and the efficacy was evaluated after 7 days. The results showed that the healing rate of the acupuncture group was higher than that of the western medicine control group.

3.3 ShiZheng acupuncture formula

Stroke the total pathogenesis is yin and yang, qi and blood disorders^[23], Constipation is mostly deficiency of qi and lack of qi yin. At present, in accordance with the principle of nourishing yin and regulating qi circulation, take acupoints: ZhiGou, QiHai, TianShu, SanYinJiao. There are also reports of single-spined TianShu acupoint^[24]. Zhou De'an based on the theory of "healing the Shen before healing sick". Zhou's signature acupuncture prescription is used for treatment. In the Eight Essentials of Acupuncture, Zhou De'an first divided constipation into two categories, Xu and Shi, according to the etiology^[25]. Zhou De'an ShiZheng acupuncture formula adopts DaChengQi formula^[25]. Take acupoints: TianShu, YangLingQuan, ZuSanLi, FengLong. Let the gas go down, Make the dirty things go down, Thus achieving a laxative effect^[26].

3.4 XuZheng acupuncture formula

After stroke, constipation, long-term illness, yin, and fluid deficiency. Zhou De'an uses acupuncture to moisturize the intestines formula^[25]. Take acupoints: TianShu, ZhiGou, ZhaoHai, YangLingQuan,

specializing in nourishing yin and nourishing and moisturizing and laxative. People who are constipated and Qi deficient, Using acupuncture to replenish qi [25]. Take acupoints: BaiHui, Zhong Wan, QiHai, ZuSanLi, Strengthens qi and yang, strengthens the spleen and replenishes blood in the stomach [26].

4. Treatment of constipation after stroke by symptomatic acupoint selection

4.1 ZhiGou acupoint

The selection of acupuncture points is based on the specific symptoms of the disease, specific treatment effect and clinical experience of acupuncture points and Specific application in acupuncture prescription. Also known as the selection of experience acupuncture points. ZhiGou acupoint belongs to the SanJiao meridians, punching ZhiGou acupoint can pour the fire of SanJiao, regulating the qi [27,28]. If the rise and fall are orderly, constipation will be cured. "LeiJingTuYi" [29] recorded: All people with SanJiao fire, poor stool, and flank pain are suitable for Xie method. In the analysis of choice of frequency of acupuncture points for constipation after stroke, The 124 prescriptions involved a total of 74 acupuncture points, The acupuncture points selected in the top 5 frequencies are: TianShu, ZuSanLi, ZhiGou, ShangJuXu, ZhongWan [30]. It shows that ZhiGou acupoint plays a pivotal role in the treatment of constipation after stroke.

4.2 ZhaoHai acupoint

ZhaoHai acupoint belongs to the kidney meridian, The kidneys open in the two yin, It follows the abdomen and runs above the hepatic septum, Where the meridians pass, the Lord reaches, Supplement ZhaoHai can nourish the water of the kidney meridian, increase the fluid boat, To achieve the purpose of regulating stool [31,32]. In the analysis of choice of frequency of acupuncture points for constipation after stroke, The 124 prescriptions involved a total of 74 acupuncture points, The frequency of ZhaoHai acupuncture points was the 17th place [30]. It also shows that ZhaoHai acupoint play an important role in the treatment of constipation after stroke.

5. Discussion

Constipation after stroke is classified as constipation in Chinese medicine, "Constipation" is mainly manifested as an abnormality or difficulty in having a bowel movement, The large intestine receives food debris, absorbs water from it, and forms feces. Poor diet, emotional disorders, and old age and physical deficiency will cause fluid deficiency, qi disorders and poor qi circulation, poor conduction of the large intestine, and constipation. In clinical practice of acupuncture in the treatment of constipation after stroke, In the past, it was mainly based on proximal and dialectical selection, Supplemented by symptomatic acupoints as empirical acupoints, The distant selection points are mainly the Jingwai Qi acupoints. Now meridian communication and brain-gut interaction acupuncture have become new hot spots. In the selection of proximal acupoints, the treatment effect of different acupuncture points is also different, such as: Tun four needles is better than Ba Liao acupoint in treating constipation after stroke. Therefore, in the clinic, there are more considerations in the selection of acupuncture in the proximal acupoint. In the dialectical selection of acupuncture for the treatment of post-stroke constipation, the etiological pathogenesis advocated by various schools is different, so the etiological pathogenesis and prescription drugs of post-stroke constipation have not yet formed a unified normative standard. In addition, the study sample size is small, there is no systematic differentiation classification, can not provide standardized treatment standards, efficacy evaluation is mainly based on scale scores, lack of objectivity, does not investigate whether the patient's constipation symptoms can be continuously improved for a period of time after the end of treatment, and fails to clarify the long-term efficacy and recurrence rate. This form is conducive to new theoretical innovations, but lacks strong guidance in clinical practice.

References

- [1] SU Yongjing, ZHANG Xiaoyan, ZHANG Zhenlu, et al. Effect of constipation after stroke on prognosis of patients with acute ischemic stroke[J]. *Journal of Nursing*, 2007(09):4-6.
- [2] Kong Fei, Gao Ting. Acupuncture for constipation after stroke: 53 cases[J]. *Heilongjiang Medical*

Journal,2011,24(06):976-977.)

[3] ZHAO Shoufa, WANG Shu. Clinical study on acupuncture in the treatment of constipation after stroke[J].Clinical Journal of Traditional Chinese Medicine,2016,28(06):762-764.)

[4] CHEN Ziqing. Clinical study on acupuncture of Ba Liao acupoint in the treatment of constipation after stroke [D].Guangzhou University of Chinese Medicine, 2021.)

[5] CHENG J, LIL, XU F, et al. Poststroke Constipation Is Associated With Impaired Rectal Sensation [J].Am J Gastroenterol, 2020,115(1): 105-114.

[6] HUANG Liangyu. Clinical efficacy of Ba Liao acupoint on constipation after stroke [D]. Guangzhou University of Chinese Medicine,2018.)

[7] ZHOU Muhan, ZHOU Hongfei. Clinical observation of acupuncture "Tun four needles" in the treatment of constipation after stroke[J].Shanxi Journal of Traditional Chinese Medicine,2021,37(01):35-36.)

[8] Anorectal Surgery Group, Surgical Branch of Chinese Medical Association. Chinese Journal of Gastroenterology,2005,8 (4):355-356.)

[9] Department of Drug Administration, Ministry of Health of the People's Republic of China. Guidelines for clinical research of new traditional Chinese medicine drugs (trial)[S].Beijing:China Medical Science and Technology Press,2002:239-240.)

[10] ZHANG Lu,LIU Yixuan. Research progress on the interaction between intestinal flora and brain-gut axis function[J].Gastroenterology,2014,9:563-565.)

[11] Wu Lian. Clinical efficacy of abdominal acupuncture in the treatment of constipation in patients with ischemic stroke.[D].Hunan University of Chinese Medicine,2019.

[12] XIONG Jinhua. Clinical study of abdominal acupuncture in the treatment of constipation after qi deficiency stroke by Lingnan flying acupuncture[D].Guangzhou University of Chinese Medicine,2021.

[13] WANG Zhijie, LIU Zhaohui. Acupuncture combined with dialectical acupoint selection for the treatment of constipation after stroke[J].Jilin Journal of Traditional Chinese Medicine, 2021, 41(01):119-122.)

[14] Mo Fangfang, Ma Shilei. Discussion on the Origin and Connotation of the Theory of "Lung and Large Intestine Surface" Based on the Study of Ancient Chinese Medicine Books[J]. Global Journal of Traditional Chinese Medicine,2015,8(2): 165.

[15] Liu Cheng Cheng. Efficacy of Xie lung Qing intestinal acupuncture in the treatment of empirical constipation after stroke[D].Heilongjiang University of Traditional Chinese Medicine,2017.)

[16] The State Administration of Traditional Chinese Medicine issued the People's Republic of China traditional Chinese medicine industry standard - "Diagnostic Efficacy Standards of Traditional Chinese Medicine Certificates"[J].Journal of Traditional Chinese Medicine Management.1994 (06)

[17] SUN Shuangxi, BAI Xiaoxin. The understanding of the brain-gut axis from the perspective of TCM physiopathology[J].Shaanxi Journal of Traditional Chinese Medicine,2017,38(06):787-788.)

[18] CHEN Yuanping, XU Jinsen, ZHENG Shuxia. Effect of acupuncture on related diseases through intestinal flora[J].Yunnan Journal of Traditional Chinese Medicine,2019,40(8): 86-89.)

[19] QIN Peilan,CHENG Zedong. Discussion on the regulation of intestinal flora by acupuncture based on the theory of brain-gut axis[J].Shizhen Chinese Medicine and Chinese Medicine,2015,26 (11): 2712- 2714

[20] ZHONG Yue, JIA Xiaomeng. Clinical observation of acupuncture to adjust Shen prescription for the treatment of constipation after stroke[J].Journal of Guangzhou University of Chinese Medicine, 2022,39(08):1824-1829.)

[21] Wei Yuyue. Clinical efficacy of acupuncture in the treatment of yin deficiency constipation after stroke[D].Fujian University of Chinese Medicine,2012.)

[22] CAO Tiemin, SUN Yan. Acupuncture for constipation after stroke: 30 cases[J].Shaanxi Journal of Traditional Chinese Medicine,2009,30(02):199-200.)

[23] ZHOU Zhongying. Internal Medicine of Traditional Chinese Medicine[M].2nd ed. Beijing:China Traditional Chinese Medicine Press,2007:304-306.

[24] YANG Deli, LIU Zhishun. Efficacy of TianShu in the treatment of functional constipation [J].Beijing Journal of Traditional Chinese Medicine,2010,29(5):366-368.)

[25] ZHOU Dean. Acupuncture Eight Essentials [M].2 Edition. Beijing:Science and Technology Press, 2015.

[26] ZENG Hui. Zhou De'an's experience in the treatment of constipation after stroke by acupuncture [J].Beijing Journal of Traditional Chinese Medicine,2019,38(12):1189-1191.)

[27] GAO Hongying, XU Jianyong. Acupuncture ZhiGou acupoint for the treatment of constipation: 52 cases [J].Journal of Modern Integrative Medicine,2005,14(17):2243.)

[28] Song Lufa. Observation of 64 cases of habitual constipation treated by acupuncture ZhiGou [J].New Traditional Chinese Medicine,1991(12):32-33.)

- [29] Zhang Jiebin. *LeiJing TuYi*[M].Beijing:People's Medical Publishing House,1982:262.
- [30] ZHOU Yihao, DAI Anhong. Exploring the rules of acupuncture for the treatment of constipation after stroke based on data mining[J].*Bulletin of Traditional Chinese Medicine*,2021,20(04):45-49.)
- [31] SUN Yonghui, ZHAO Zhenjian. Clinical observation of mang and warm acupuncture combined with prucapride succinate tablets in the treatment of constipation after vinorelbine chemotherapy [J].*Journal of Shanxi Medicine*,2016,45(5):551-552.)
- [32] Shen Haiming. Acupuncture for the treatment of habitual constipation: 85 cases[J].*Sichuan Journal of Traditional Chinese Medicine*,2002,20(8):76.)