Nursing Experience of a Patient with Gastroparesis after Pancreaticoduodenectomy Treated with Integrated Traditional Chinese and Western Medicine

Authors: Wang Xiaoming, Li Jin, Wu Xi

Date: 2024-11-29T00:00:00+00:00

Abstract

This article summarizes the nursing experience of a patient with post-pancreaticoduodenectomy gastroparesis treated with integrated traditional Chinese and Western medicine. Based on the patient's actual condition, characteristic traditional Chinese medicine techniques such as auricular acupressure, acupuncture, and acupoint injection were implemented, combined with dietary nursing, emotional nursing care, and other measures; an individualized nursing plan was formulated, nursing interventions were carried out, nursing quality was improved, the effect of holistic nursing care was achieved, thereby effectively promoting the patient's rehabilitation.

Full Text

Nursing Experience in Integrated Traditional Chinese and Western Medicine Treatment for Postoperative Gastroparesis Following Pancreaticoduodenectomy: A Case Report

Wang Xiaoming, Li Jin, Wu Xi
(Department of General Surgery and Oncology, Beijing Jiangong Hospital, Beijing, 100054)

Abstract

This article summarizes the nursing experience in managing a patient with post-operative gastroparesis following pancreaticoduodenectomy using integrated traditional Chinese and Western medicine. Based on the patient's actual condition,

we implemented characteristic traditional Chinese medicine techniques including auricular acupressure, acupuncture, and acupoint injection, combined with dietary and emotional care measures. By developing individualized nursing plans and implementing targeted interventions, we enhanced nursing quality and achieved holistic care, thereby effectively promoting patient recovery.

Keywords: Integrated traditional Chinese and Western medicine; pancreaticoduodenectomy; gastroparesis; nursing experience

Introduction

Laparoscopic pancreaticoduodenectomy (LPD) is currently recognized globally as one of the most difficult and complex laparoscopic procedures. Pancreaticoduodenectomy is widely considered the standard surgical approach for treating pancreatic head cancer, duodenal cancer, ampullary carcinoma, and other tumors. This operation involves multiple organs, is technically complex, has a long duration, causes significant trauma, and carries high risks of postoperative complications and mortality, making it one of the most challenging procedures in abdominal surgery [1-2]. With continuous improvements in medical standards and surgical techniques, treatment outcomes have improved, reducing patient mortality to below 5%; however, the risk of postoperative complications remains relatively high [3]. Common complications following pancreaticoduodenectomy include gastrointestinal or intra-abdominal bleeding, anastomotic leakage, and gastroparesis syndrome. Postoperative gastroparesis syndrome (PGS) refers to a gastric motility disorder characterized primarily by delayed gastric emptying caused by non-mechanical obstructive factors after abdominal surgery, also known as functional delayed gastric emptying (FDGE), or simply gastroparesis. The incidence ranges from 7.0% to 56.4%, and its pathogenesis remains unclear. Clinical manifestations include upper abdominal distension, nausea, and vomiting, typically occurring during initial feeding or transition from liquid to semi-liquid diet. Although this complication does not endanger patient safety, it affects the timing of enteral nutrition, delays postoperative recovery, prolongs hospital stays, and increases medical costs [4-6].

Traditional Chinese medical texts do not contain the term “gastroparesis.” Based on its clinical manifestations, gastroparesis can be categorized under “gastric distension,” “fullness and oppression,” and “vomiting.” Traditional Chinese medicine holds that gastroparesis formation is associated with multiple factors including postoperative spleen-stomach damage, emotional distress, qi disharmony, upward rebellion of stomach qi, and phlegm-stasis obstruction.

In August 2024, our department admitted a patient with postoperative gastroparesis following pancreaticoduodenectomy. Through conventional Western medical treatment combined with external traditional Chinese medicine therapies (auricular acupressure, acupoint injection, acupuncture, acupoint massage, and five-element music therapy) and integrated nursing care, we provided personalized nursing interventions that maximized patient comfort, shortened

feeding time, reduced suffering, accelerated recovery, decreased hospitalization duration, lowered medical expenses, and improved quality of life.

1. Case Presentation

1.1 General Information The patient was a 60-year-old male admitted due to "pancreatic head mass discovered for 1 week." He had a history of hypertension, controlled with telmisartan tablets (1 tablet once daily) and metoprolol tartrate tablets (25 mg once daily), maintaining blood pressure at 130-140/80-90 mmHg. His blood glucose was elevated without systematic treatment. For diagnosis and treatment, he was admitted to our hospital on August 12, 2024, with "pancreatic head mass."

1.2 Physical Examination **Western medical examination:** Temperature 36.6°C, pulse 80 beats/min, respiration 18 breaths/min, blood pressure 130/80 mmHg. The patient was conscious but weak, with normal development, thin build, moderate nutrition, and cooperative during examination. No jaundice or petechiae on skin; pale mucous membranes; no skull deformity; no eyelid edema; no eyeball protrusion or depression; no conjunctival congestion; normal physiological reflexes present; no pathological reflexes elicited. Abdomen was soft; liver and spleen not palpable below ribs; no percussion pain in liver or kidney regions; negative shifting dullness; no subcutaneous hematoma or edema. Coarse breath sounds in both lungs, with a few fine moist rales at both lung bases.

Traditional Chinese medicine four examinations:

Inspection: Clear consciousness, weak spirit, thin body, dull eyes, pale complexion, pale red tongue with thin yellow coating.

Auscultation and olfaction: Clear voice, normal breathing, no abnormal odors detected.

Inquiry: Recurrent hiccup sensation, heavy limb fatigue, poor appetite.

Palpation: Flat abdomen, abdominal pain and distension, wiry and slippery pulse.

Traditional Chinese medicine syndrome differentiation diagnosed as spleen deficiency with dampness obstruction type gastroparesis.

1.3 Diagnosis Abdominal B-ultrasound during physical examination suggested pancreatic head mass. Abdominal enhanced CT showed a mass at the anterior edge of the right liver lobe, cyst in the left liver lobe; enlarged gallbladder, dilated common bile duct (10 mm), multiple patchy low-density shadows in the pancreatic head region, considered pancreatic head mass. Laboratory tests: glucose 8.28 mmol/L. MRI: thickened duodenal descending segment wall with intraluminal nodules, low biliary obstruction at pancreatic head; patchy abnormal enhancement around the right liver lobe, abnormal liver perfusion; fatty liver, multiple liver cysts; small cysts in pancreatic head and

tail. Ultrasound: left atrial enlargement; interventricular septal thickening; decreased left ventricular diastolic function. ECG: ST-T changes.

Traditional Chinese medicine diagnosis: Pancreatic cancer, gastroparesis. Syndrome differentiation: spleen deficiency with dampness obstruction.
Western medicine diagnosis: Pancreatic cancer, gastroparesis.

1.4 Treatment Interventions The patient underwent pancreaticoduodenectomy and enterolysis on August 2, 2021 (the 7th day after admission). Postoperatively, the patient received conventional Western nursing care plus external traditional Chinese medicine treatments. For acupoint application, we applied Zhishi Tongfu plaster to upper, middle, and lower epigastric points (Shangwan, Zhongwan, Xiawan) and Tianshu points, twice daily for 4 hours each time, to assist spleen in raising clear yang to nourish muscles, promote qi and blood generation, and facilitate communication among the five viscera, resulting in flexible limbs and improved body strength. For hot compress therapy, we used fennel and dried ginger in a cotton bag heated to 50°C and applied to the upper abdomen. Fennel, as both food and medicine, has the effects of dispelling cold, relieving pain, regulating qi, and harmonizing the stomach, commonly used to promote postoperative gastrointestinal recovery and treat functional gastrointestinal disorders.

On August 16, 2021 (postoperative day 7), the patient developed nausea, vomiting, abdominal distension, and pain after being prescribed a liquid diet, and received symptomatic treatment. On August 17, 2021 (postoperative day 8), gastroparesis was diagnosed. The patient was discharged on August 31, 2021, after receiving integrated Chinese and Western medicine treatment. Western medical treatment included retaining the gastric tube to reduce gastrointestinal tension and providing nutritional support through enteral and parenteral routes: Fat Emulsion, Amino Acids and Glucose Injection 1440 mL intravenously once daily. Enteral nutrition included 500 mL of enteral nutrition solution twice daily. Gastric tube injection included mosapride citrate tablets (5 mg three times daily) to aid digestion and promote gastric motility. Antihypertensive medications: telmisartan tablets 2 tablets (40 mg) orally once daily; metoprolol tartrate tablets 25 mg orally once daily. Octreotide acetate injection 0.5 mg + 0.9% sodium chloride injection 50 mL and somatostatin 3 mg + 0.9% sodium chloride injection 50 mL administered via intravenous pump every 12 hours to inhibit gastric acid secretion. 0.9% sodium chloride injection 100 mL + glutathione for injection 1.2 g intravenously every 8 hours; ursodeoxycholic acid capsules 125 mg orally twice daily for hepatoprotection and choleresis. Anti-infection treatment was provided, along with bilateral lower extremity pneumatic compression and anticoagulation therapy, and assistance with turning in bed. Drainage tubes beside the choledochojejunostomy and above/below the pancreaticojejunostomy were patent and well-fixed, draining serosanguineous fluid.

Traditional Chinese medicine interventions included auricular acupressure, acu-

point injection, acupuncture, acupoint massage, five-element music therapy, and Chinese medicine administered via gastric tube. After treatment, the patient's hiccup discomfort improved on August 24, with occasional acid reflux and significant resolution of gastroparesis symptoms including gastric distension. On August 26, the patient experienced obvious hunger and restored appetite. After 14 days of integrated treatment and nursing care, abdominal distension, nausea, and pain symptoms were alleviated, gastrointestinal decompression drainage gradually decreased, nutritional status significantly improved, and the patient was discharged on August 31, 2024.

Traditional Chinese medicine treatments:

Auricular acupressure: Main points selected: spleen, stomach, large intestine, small intestine, Shenmen, sympathetic, subcortex; supplementary point: Sanjiao. Apply pressure three times daily for 2 minutes each session to suppress adverse flow and relieve pain.

Acupoint injection: Metoclopramide hydrochloride injection administered bilaterally at Zusanli (ST36) once daily, followed by acupuncture treatment. Body points selected: Xuehai (SP10), Qimen (LR14), Zusanli (ST36) to achieve analgesic effects.

Acupoint massage: Hegu (LI4) point selected for its wind-dispelling and pain-relieving effects, twice daily for 10 minutes each session.

Five-element music therapy: Listening to "Hujia Shiba Pai" between 19:00-23:00 to regulate emotions.

2. Nursing Care

2.1 Assessment

2.1.1 Abdominal Distension Assessment The patient presented with tenderness throughout the abdomen, abdominal muscle tension, rebound tenderness, reduced bowel sounds (1-2 times/min), restlessness, and difficulty lying flat. Assessment was conducted according to the 2002 "Guiding Principles for Clinical Research of New Chinese Medicines": Grade 0: no abdominal distension, score 0; Grade I: mild subjective distension, self-resolving, not affecting normal work or rest, score 1; Grade II: severe distension, tolerable but frequent episodes affecting work and rest, score 2; Grade III: severe distension, intolerable, persistent, requiring medication, score 3. This patient scored 3 points, indicating severe abdominal distension.

2.1.2 Pain Assessment Pain is a crucial factor affecting recovery, making precise pain control essential. The Numeric Rating Scale (NRS) uses numbers 0-10 to represent pain intensity, where 0 indicates no pain and 10 indicates the most severe pain imaginable. Pain levels are categorized as: mild pain (1-3 points) - slight pain that is tolerable; moderate pain (4-6 points) - significant pain affecting sleep but still tolerable; severe pain (7-10 points) - intense pain

that is unbearable and affects appetite and sleep. This patient scored 7 points, indicating severe pain.

2.1.3 Anxiety Level The Hamilton Anxiety Scale (HAMA) was used to assess anxiety. The scale ranges from 0-56 points: total score $ $29 indicates possible severe anxiety; $ $21 indicates definite significant anxiety; $ $14 indicates definite anxiety; >7 indicates possible anxiety; <7 indicates no anxiety symptoms. Assessment was conducted before and after intervention. This patient's pre-treatment HAMA score was 57 points, indicating severe anxiety.

2.1.4 Depression Level The Hamilton Depression Scale (HAMD) assessment: total score <7 indicates low possibility of depression; 7-17 indicates possible mild depression; 17-24 indicates possible moderate depression; >24 indicates possible severe depression. Assessment was conducted before and after intervention. This patient's pre-treatment HAMD score was 51 points, indicating severe depression.

2.1.5 Nutritional Screening and Assessment Nutritional risk screening and assessment are critical components in gastroparesis treatment. Common assessment methods include Nutritional Risk Screening 2002 (NRS 2002) and Subjective Global Assessment (SGA). Through comprehensive nutritional screening and assessment, including evaluation of gastrointestinal function, duration of abdominal distension, and time to resume feeding, we can classify patients' nutritional risk levels and implement targeted, personalized nutritional treatment plans.

2.2 Nursing Diagnoses Based on comprehensive patient assessment, the following nursing diagnoses were identified:

Nausea and vomiting: related to delayed gastric emptying
Abdominal distension: related to gastric emptying dysfunction
Pain: related to surgical wound trauma and indwelling drainage tubes
Malnutrition: related to delayed gastric emptying and gastric dysfunction
Anxiety and depression: related to concerns about disease prognosis

2.3 Nursing Plan Based on diagnostic results, the nursing plan was developed as follows:

According to wound characteristics, implement proper drainage tube securement to prevent dislodgement, reduce complications, improve comfort and quality of life, and decrease pain scores.

Through integrated Chinese and Western medicine approaches, utilize appropriate Chinese medicine techniques including auricular acupressure, acupuncture, acupoint massage, five-element music therapy, and oral Chinese medicine, combined with analgesic medications, to reduce abdominal distension, nausea, and vomiting symptoms.

Through gastrointestinal decompression care and enteral/parenteral nutrition

guidance, promote gastrointestinal function recovery and ensure adequate nutritional support.

Through psychological nursing, alleviate patient anxiety and depression, reducing anxiety and depression scores.

2.4 Nursing Interventions

2.4.1 Wound and Drainage Tube Care Apply iodophor to disinfect wound surfaces and surrounding skin; handle wounds carefully without excessive cleaning.

Replace sterile dressings promptly when wound exudate is frequent; securely fix drainage tubes using 3M tape "I-shaped stickers"; accurately record drainage fluid color, characteristics, and volume.

Physical therapy: Perform daily red light irradiation to promote inflammatory absorption.

2.4.2 Pain Management When pain became intolerable, tramadol hydrochloride injection was administered intramuscularly as prescribed.

Auricular acupressure: As recorded in *Lingshu*: "The ear is where all vessels converge, and the five viscera and six bowels with their twelve meridians all reach the ear." Selected points: main points - Shenmen, sympathetic, subcortex; supplementary point - Sanjiao. Shenmen nourishes yin and moistens dryness, controls anger, nourishes blood and calms the spirit, clears heat and promotes diuresis, and suppresses adverse flow to relieve pain. Sympathetic regulates autonomic nerve function and relieves pain. Subcortex regulates cerebral cortex function and relieves pain. Patients were instructed to apply pressure three times daily for 2 minutes each session, using tolerable soreness, numbness, and distension as the standard.

Acupoint injection: Metoclopramide hydrochloride has strong antiemetic effects, commonly used for symptomatic treatment of nausea and vomiting. It acts on the upper gastrointestinal tract to enhance esophageal and gastric motility and promote gastric emptying [7]. Selected points: bilateral Zusanli (ST36), once daily.

Acupuncture treatment: Syndrome differentiation-based point selection. Main points: Zusanli (ST36), Liangqiu (ST34), Tianshu (ST25), Shangjuxu (ST37), Xiajuxu (ST39), Neiguan (PC6), Hegu (LI4), Zhongwan (CV12); supplementary points: Pishu (BL20), Weishu (BL21), Taichong (LR3), Tiantu (CV22). Retain needles for 30 minutes, once daily for 1-2 weeks. Zusanli, Liangqiu, Tianshu, Shangjuxu, and Xiajuxu belong to the Stomach Meridian of Foot-Yangming. Zusanli, the He-sea point of the stomach meridian, has effects of supplementing qi, strengthening the spleen, transforming dampness, and harmonizing the middle. Acupuncture at Zusanli can promote gastrointestinal motility. Liangqiu, the Xi-cleft point of the stomach meridian, regulates qi, harmonizes the stomach, and unblocks meridians. Tianshu clears heat,

promotes diuresis, and regulates qi to relieve pain. As the lower He-sea points of the large and small intestines respectively, Shangjuxu and Xiajuxu can regulate spleen-stomach qi mechanism. Neiguan, the Luo-connecting point of Hand-Jueyin, is an empirically effective point for suppressing adverse flow and stopping vomiting. Hegu, a point on the Large Intestine Meridian of Hand-Yangming connecting with the Stomach Meridian of Foot-Yangming, can clear and drain Yangming gastrointestinal heat and regulate qi to stop vomiting. Zhongwan, the "influential point of the fu organs" and the front-mu point of the stomach, has the effect of regulating qi and relieving stagnation [8].

Acupoint massage: Hegu (LI4) point was selected for its wind-dispelling, pain-relieving, and meridian-unblocking effects, providing good relief for post-operative pain. Twice daily, 10 minutes per session.

Music therapy: Gentle, soft music produces beneficial physiological effects, providing good analgesia for patients. The five tones (Gong, Shang, Jiao, Zhi, Yu) correspond to the spleen, lung, liver, heart, and kidney respectively. Jiao-mode music has characteristics of spring returning to the earth and vibrant vitality, with crisp and melodious tunes full of life force, soft like wood, primarily regulating the liver, soothing liver qi, relieving depression, and promoting the ascending and dispersing of qi. Patients listened to "Hujia Shiba Pai" between 19:00-23:00.

2.4.3 Dietary Care Gastrointestinal decompression care: Once gastroparesis is diagnosed, immediate fasting and gastric tube placement with continuous effective gastrointestinal decompression should be implemented. This can reduce gastric mucosal edema caused by food or digestive juice stimulation, ensure adequate rest for the residual stomach, reduce gastric smooth muscle dilation, and decrease anastomotic swelling. The gastric tube should be properly fixed and clearly marked to prevent folding, pulling, or compression, ensuring patency. Carefully monitor and accurately record the volume, color, and characteristics of gastrointestinal decompression drainage.

Administer anti-inflammatory and decongestive medications as prescribed to relieve gastric mucosal and anastomotic swelling, ensuring gastric tube patency and facilitating monitoring of drainage volume and characteristics. When drainage volume significantly decreases, gastric tube removal can be considered. If examination shows no abdominal distension, pain, vomiting, or other discomfort, and gastrointestinal imaging confirms restored gastric motility, the gastric tube can be removed as recommended and the patient allowed to consume liquid food. During treatment, after gastric motility recovery, nursing staff instructed patients to assume semi-sitting position and ambulate after meals, while strictly monitoring albumin and hemoglobin levels [9].

Nutritional support care:

Parenteral nutrition support: During gastroparesis syndrome treatment, patients lose large amounts of electrolytes due to high-volume gastrointestinal decompression drainage. Therefore, thorough assessment of current nutritional status is essential. Total parenteral nutrition solution should be selected according to physician recommendations to provide necessary nutritional support. Blood glucose, liver and kidney function should be closely monitored, water-electrolyte and acid-base balance maintained, and patient intake and output accurately recorded within 24 hours, with immediate correction of any abnormalities.

Enteral nutrition support: Enteral nutrition can promote gastrointestinal function recovery and shorten gastroparesis duration, representing an effective treatment measure. Transition from parenteral to enteral nutrition should occur as soon as possible. Enteral nutrition promotes intestinal peristalsis, provides direct nutritional support to intestinal mucosal cells, stimulates growth factor production, regulates intestinal flora, stimulates intestinal alkaline phosphatase production, maintains intestinal integrity, reduces gut-lung axis inflammation, improves absorption function, and maintains intestinal mucosal barrier function. Use an infusion pump for slow, uniform administration, and employ a warmer to maintain nutritional solution temperature at 37-40°C. If patients experience nausea, vomiting, bloating, abdominal pain, or diarrhea during enteral nutrition infusion, immediately reduce infusion rate or stop infusion and promptly notify the physician.

When gastrointestinal function recovers and oral feeding begins, dietary guidance should be provided. Start with small amounts of liquid food, consuming small amounts of warm boiled water and rice soup on day 1. If no abdominal pain or distension occurs, provide half-strength liquid food the next day, approximately 50 mL each time. On day 2, provide full-strength liquid, about 80 mL each time. If no discomfort occurs after 2 days, consider providing semi-liquid foods such as porridge, noodle soup, or steamed eggs. Foods should be soft and easily digestible, with small frequent meals initially recommended at 5-6 meals daily. Avoid raw, cold, hard, and irritating foods such as milk, soy milk, and ice cream. Gradually transition to normal diet, maintaining sitting or semi-sitting position after meals to facilitate food entering the intestines, and instruct patients to develop regular eating habits.

Restoring gastric motility: Elevate the head of bed to 45°-60°, encourage appropriate bed exercises with gradually increasing activity according to physical condition, and coordinate with appropriate prokinetic medications such as mosapride citrate tablets. After crushing and administering via gastric tube, clamp the tube for 1 hour before reopening to ensure drug absorption and utilization.

Oral Chinese medicine decoction: Including Solanum nigrum 15g, vinegar-processed Curcuma zedoaria 10g, ginseng 6g, jujube 30g, fresh ginger 3 slices, hematite 15g, Inula flower 9g, Pinellia rhizome (processed) 9g, ginger-processed Magnolia bark 9g, charred Areca seed 8g, honey-fried licorice 6g, stir-fried bitter

orange 9g, stir-fried white peony root 10g, vinegar-processed Bupleurum 12g. Administered twice daily, 50 mL each dose via gastric tube, followed by clamping the gastric tube for 2 hours.

2.4.4 Psychological Care Provide psychological nursing guidance. For pancreatic cancer patients with postoperative gastroparesis, psychological mood is low with significant fluctuations due to disease and adverse reactions. Nursing staff must provide multi-faceted psychological comfort and guidance to reduce psychological burden. Use cases of actively cooperative patients for encouragement to help build recovery confidence. Family members should stay with the patient constantly, providing comfort, encouragement, and family warmth.

Family members should closely monitor psychological changes, allow patients to express their feelings and needs, provide care and attention, make patients feel understood and loved, maintain patient dignity, and encourage contact with the outside world. They should fully understand and accompany patients, gain their trust, encourage expression of true inner thoughts, help patients gradually realize their disease is not directly related to their experiences, and reduce psychological pressure. This enables patients to actively cooperate with treatment and nursing care, promoting physical and mental recovery.

2.5 Nursing Evaluation After 14 days of treatment and nursing intervention, the patient's gastrointestinal decompression drainage gradually decreased from 1000 mL to 200 mL daily. NRS pain score decreased from 8 to 3 points; depression score decreased from 51 to 32 points; anxiety score decreased from 57 to 30 points; serum nutritional indicators ALB, PRE, and TRF levels increased, indicating that integrated Chinese and Western nursing interventions effectively promoted gastrointestinal motility and improved nutritional status.

3. Results and Follow-up

Through integrated Chinese and Western medicine treatment, enhanced wound care, pain management, dietary care, and psychological nursing, the patient's abdominal distension, nausea, and vomiting were effectively managed, pain symptoms were alleviated, nutritional status improved, and quality of life enhanced.

Telephone follow-ups were conducted on post-discharge day 3 and day 14. Patient comfort improved, gastrointestinal reactions decreased, gastrointestinal function recovered, and nutritional status improved. Medical staff advised regular hospital follow-up visits.

From the traditional Chinese medicine perspective, PGS belongs to categories of "vomiting," "gastric reflux," "gastric distension," and "fullness and oppression." The pathogenesis primarily involves upward rebellion of stomach qi, internal phlegm turbidity, disharmony of ascending and descending, failure of stomach to descend and spleen to transport, spleen-stomach damage, and qi-blood deficiency after abdominal surgery, causing vomiting and nausea after

eating. Surgical manipulation damages vessels and collaterals, causing blood stasis obstruction, qi stagnation and blood stasis, and liver failure to regulate, blocking the middle jiao and causing abdominal pain and distension after eating. The disease location is in the spleen and stomach, with main pathologies of phlegm-stasis intermingling, failure of stomach to descend, and liver depression with spleen deficiency. Treatment principles focus on supporting vital qi and dispelling pathogenic factors, tonifying deficiency and purging excess, with main therapeutic methods of regulating qi to eliminate fullness, transforming phlegm and activating blood, suppressing adverse flow to stop vomiting, strengthening spleen and boosting qi, and soothing liver to harmonize stomach [10]. PGS patients have relatively long disease courses and severe conditions. Based on combined effects of regulating qi to eliminate fullness, transforming phlegm and activating blood, suppressing adverse flow to stop vomiting, strengthening spleen and boosting qi, and soothing liver to harmonize stomach, this approach can promote rapid recovery of spleen-stomach function and gastrointestinal motility, enabling early return to normal diet.

Postoperative gastroparesis syndrome occurrence is associated with surgical trauma, inflammatory response, and postoperative intestinal function recovery. Gastroparesis seriously affects postoperative recovery and quality of life. For patients with postoperative gastroparesis syndrome, while ensuring continuous gastrointestinal decompression, close observation and accurate recording of drainage volume, characteristics, and color are essential. Some scholars indicate that fasting with continuous gastrointestinal decompression and warm concentrated saline gastric lavage can reduce gastric mucosal and anastomotic inflammatory edema, contributing to gastric motility recovery. Simultaneously, combined enteral and parenteral nutritional support should be provided, especially enteral nutrition support which promotes postoperative gastrointestinal motility and digestive juice secretion, restores intestinal immune barrier, and stabilizes microbial ecology [11]. On the basis of supportive treatment, combined drug and physical therapy can enhance patient enteral nutrition, parenteral nutrition, and other nursing and nutritional knowledge guidance, with targeted nursing measures to promote early recovery. Nursing staff should closely monitor patient condition changes and adjust nursing plans promptly to address pathophysiological characteristics and nursing challenges. In summary, comprehensive nursing as a means, combined with scientific treatment, meticulous nursing care, and integrated Chinese and Western medicine therapy is significant for improving efficacy and prognosis, achieving optimal treatment results, reducing patient suffering, and holding high promotional value.

Patient Consent: Publication of this case report was approved by the patient and family members.
Conflict of Interest Statement: The authors declare no conflict of interest in this article.

References

[1] Liu JH. Development and status of pancreatoduodenectomy [J]. Chin J Hepatobiliary Surg,2022, 28(4): 241-244. Liu Jianhua. Development and status of pancreatoduodenectomy [J]. Chinese Journal of Hepatobiliary Surgery, 2022, 28(4): 241-244.

[2] Li SY, Cao ZQ, Ren H, et al. Clinical study on the related factors of complications after Whipple operation or pyloro-preserving pancreat-icoduodenectomy and its correlation with Clavien-Dindo classifica-tion [J]. Shaanxi Medical Journal, 2018, 47(10): 1319-1321. Li Shuying, Cao Ziqian, Ren Hong, et al. Clinical study on the related factors of complications after Whipple operation or pyloro-preserving pancreaticoduodenectomy and its correlation with Clavien-Dindo classification [J]. Shaanxi Medical Journal, 2018, 47(10): 1319-1321.

[3] Cao ZQ, Li SY, Ren H, et al. Treatment of bleeding after pancreaticoduodenectomy and analysis of influencing factors [J]. Shaanxi Medi-cal Journal, 2018, 47(11): 1434-1437. Cao Ziqian, Li Shuying, Ren Hong, et al. Treatment of bleeding after pancreaticoduodenectomy and analysis of influencing factors [J]. Shaanxi Medical Journal, 2018, 47(11): 1434-1437.

[4] He Z, Wang JF, Luo JH, et al. Clinical analysis of perioperative complications of pancreatoduodenectomy in 150 cases [J]. Chin J Gen Surg, 2021, 30(3): 357-364. He Zhuo, Wang Jinfeng, Luo Jianhong, et al. Clinical analysis of perioperative complications of pancreatoduodenectomy in 150 cases [J]. Chinese Journal of General Surgery, 2021, 30(3): 357-364.

[5] Pan ZZ, Yu L, Peng JH. Progress in diagnosis and treatment of gastro-paresis after colon cancer surgery [J]. Chin J Gastrointest Surg, 2022, 25(6): 558-562. Pan Zhizhong, Yu Long, Peng Jianhong. Progress in diagnosis and treatment of gastroparesis after colon cancer surgery [J]. Chinese Journal of Gastrointestinal Surgery, 2022, 25(6): 558-562.

[6] Liu X, Wang C, Wu BQ. Progress in diagnosis and treatment of gas-tric emptying disorders after pancreaticoduodenectomy [J]. Chin J Bas Clin Gen Surg, 2020, 27(5): 641-645. Liu Xiang, Wang Cheng, Wu Buqiang. Progress in diagnosis and treatment of gastric emptying disorders after pancreaticoduodenectomy [J]. Chinese Journal of Basic and Clinical General Surgery, 2020, 27(5): 641-645.

[7] Wang Yingfei, Liu Yingying, Wang Quanlin. Study on auricular and body acupuncture combined with metoclopramide hydrochloride injection in treating gastroparesis syndrome after gastric cancer surgery [J]. Traditional Chinese Medicine Research, 2024, 37(06): 53-57.

[8] Guo Chenxu, Shi Lianghui, Wu Shengbing, et al. Clinical observation of thumbtack needle therapy in treating 100 cases of postoperative gastroparesis syndrome [J]. Modern Distance Education of Chinese Medicine, 2024, 22(12): 99-102.

[9] Zhao Huiying, Zhao Danmei. Review of rehabilitation nursing for patients with gastroparesis after pancreaticoduodenectomy [J]. Life Science Instruments, 2024, 22(02): 99-101.

[10] Ye Yujie, Chen Wanyun. Clinical observation of Liqi Xiaopi Decoction combined with acupoint application in treating patients with postoperative gastroparesis syndrome after tumor surgery [J]. Medical Theory and Practice, 2024, 37(16): 2761-2763.

[11] Cao Rong, Li Xiaojian, Li Kewei, et al. Analysis of influencing factors and summary of treatment experience for gastroparesis syndrome after pancreaticoduodenectomy [J]. Journal of Hepatobiliary and Pancreatic Surgery, 2023, 35(03): 173-176.

Note: Figure translations are in progress. See original paper for figures.