

# Application of Traditional Chinese Medicine Enema Combined with Chinese Herbal Hot Compress Pack Technique in the Nursing Care of Abdominal Distension in a Patient with Severe Acute Pancreatitis

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## Abstract

This article summarizes the clinical efficacy of traditional Chinese medicine (TCM) enema combined with TCM hot compress therapy in treating abdominal distension in a patient with severe acute pancreatitis, and analyzes the unique advantages and characteristics of these techniques in abdominal distension management. In this case, conventional comprehensive Western medical treatment—including oxygen therapy, gastrointestinal decompression, nutritional support, anti-infective therapy, microcirculation improvement, and pancreatic secretion inhibition—produced limited relief of abdominal distension. However, TCM syndrome differentiation and treatment employing TCM enema combined with TCM hot compress therapy achieved favorable clinical outcomes, alleviated patient suffering, reduced hospitalization duration and medical expenses, and enhanced patient comfort and satisfaction.

## Full Text

### The Application of Traditional Chinese Medicine Enema Combined with Hot Poultice Therapy in the Nursing Management of Abdominal Distension in a Patient with Severe Acute Pancreatitis

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## Abstract

This case report summarizes the clinical efficacy of traditional Chinese medicine (TCM) enema combined with hot poultice therapy in managing abdominal distension in a patient with severe acute pancreatitis (SAP), highlighting the unique advantages of these interventions. The patient received conventional Western medical treatment including oxygen therapy, gastrointestinal decompression, nutritional support, anti-infection therapy, microcirculation improvement, and pancreatic secretion inhibition, yet experienced minimal relief from abdominal distension. Following TCM syndrome differentiation, the implementation of herbal enema combined with hot poultice therapy achieved satisfactory clinical outcomes, alleviating patient suffering, reducing hospitalization duration and medical costs, and improving patient comfort and satisfaction.

**Keywords:** Severe acute pancreatitis; Abdominal distension; Chinese medicine enema; Traditional Chinese medicine hot poultice; Nursing experience

## Introduction

Severe acute pancreatitis (SAP) is a critical surgical condition characterized by systemic and local complications, with high mortality, multiple complications, and a fulminant clinical course. The disease manifests primarily as pancreatic necrosis with infection, systemic inflammation, multiple organ failure, and intestinal stress response, with mortality reaching 20%. The *Chinese Guidelines for the Diagnosis and Treatment of Acute Pancreatitis* recommend external application of mirabilite (sodium sulfate) for its purgative, softening, and heat-clearing effects, which stimulates intestinal endothelial cell proliferation, enhances intestinal neural reflexes and peristalsis, accelerates absorption of peritoneal exudate, and relieves abdominal pain and distension while reducing pancreaticobiliary pressure and improving pancreatic function.

In TCM theory, raw rhubarb possesses purgative, stagnation-removing, and fire-purging properties. Through rectal and sigmoid colon stimulation, it increases intestinal fluid secretion, softens stool, prevents bacterial translocation and toxin absorption, inhibits trypsin and lipase secretion, relaxes the sphincter of Oddi, and improves pancreatic microcirculation. Herbal retention enema utilizes direct drug absorption through the intestinal mucosa to achieve therapeutic effects. Previous studies have demonstrated that raw rhubarb enema combined with external mirabilite application can promote intestinal motility recovery, improve intestinal paralysis, and alleviate abdominal pain and distension in acute pancreatitis patients. Therefore, proficiency in the nursing techniques of TCM enema and hot poultice application is crucial for symptom management in SAP patients. This article reports the nursing care of a SAP patient treated with combined TCM enema and hot poultice therapy for abdominal distension.

## Case Report

**Patient Information** The patient was a 60-year-old male admitted on March 7, 2024, with a two-day history of epigastric pain accompanied by nausea and vomiting, worsening over the preceding six hours. The pain began after a heavy meal two days prior as persistent epigastric distension, accompanied by anorexia, nausea, and vomiting of small amounts of gastric contents. The patient did not seek medical attention initially. Six hours before admission, the abdominal pain intensified to persistent, unrelenting generalized distension without radiation to the back, accompanied by acid reflux and heartburn but without fever or diarrhea.

The patient had a ten-year history of hypertension, long-standing hyperlipidemia and coronary artery disease, and a remote history of appendectomy. He reported no family history of genetic disorders or food/drug allergies. He had a history of smoking and alcohol consumption and took medications intermittently. At admission, he presented with persistent generalized abdominal pain, nausea, vomiting, significant acid reflux and heartburn, and absence of flatus or bowel movements.

**Physical Examination Vital signs at admission:** Temperature 36.9°C, pulse 68 beats/min, blood pressure 130/90 mmHg, respiratory rate 20 breaths/min. The patient appeared developmentally normal, alert and articulate, with a distressed facial expression. He was wheelchair-bound and assumed a passive position but cooperated with the examination. No jaundice of skin or sclera was observed. Heart rate was 68 beats/min with regular rhythm and no murmurs. Lung auscultation revealed normal breath sounds with clear percussion throughout both lungs and no rales.

**Abdominal examination:** Distressed appearance with malnutrition. The abdomen was slightly distended without venous distention, visible gastric patterns, or peristaltic waves. A surgical scar was visible in the right lower quadrant. Diffuse abdominal tenderness, muscular rigidity, and rebound tenderness were present. Bowel sounds were diminished (1-2 times/min).

### Four TCM diagnostic methods:

Inspection: Poor spirits, pale red tongue with thin white coating

Auscultation: Smooth breathing, clear speech, no abnormal odors detected

Inquiry: Intolerable abdominal distension and pain

Palpation: Wiry and slippery pulse

Solar term at onset: Jingzhe (Awakening of Insects)

**Diagnostic Findings CT scan of abdomen and pelvis (March 6, 2024):** Acute pancreatitis with peripancreatic exudate and fluid collection; fatty liver; bilateral renal calculi; post-appendectomy status. Chest CT showed no significant abnormalities. Upright abdominal radiograph revealed crescent-shaped free air under the diaphragm.

**Laboratory values:** Urinary amylase 1773 U/L; serum amylase 1288 U/L; complete blood count with CRP: WBC  $17.8 \times 10^9$  /L, HGB 170 g/L, NEUT% 86.4%.

**TCM diagnosis:** Pancreatic fever (Yidan); syndrome differentiation: Liver qi stagnation pattern

**Western diagnosis:** Severe acute pancreatitis

**Treatment Interventions** After admission, comprehensive examinations were completed. The patient received routine surgical nursing care with first-level nursing orders and was placed on strict fasting with fluid restriction. Western medical treatment focused on anti-inflammatory infection prevention, analgesia, acid suppression, and nutritional support. Given the acute diffuse peritonitis with significant abdominal signs, nausea, and vomiting, a gastrointestinal decompression tube was placed to relieve abdominal distension and pain. Parenteral nutritional support was provided due to inability to take food orally.

**TCM treatment principle:** Soothe liver qi, harmonize stomach, and unblock bowels. Starting on the second hospital day, the patient received TCM enema combined with hot poultice therapy applied to abdominal Ah Shi points, administered twice daily. By day 5, abdominal pain and distension were significantly relieved. By day 10, the patient was free of abdominal pain and distension with stable condition, and was discharged on March 18, 2024.

## Nursing Care

**2.1 Nursing Assessment** The patient presented with diffuse abdominal tenderness, muscular rigidity, rebound tenderness, and diminished bowel sounds (1-2 times/min), appearing agitated and unable to lie flat. Abdominal distension was assessed using the 2002 *Guidelines for Clinical Research of New Chinese Medicines*: Grade 0 (no distension, 0 points); Grade I (mild distension with spontaneous resolution, no impact on work/rest, 1 point); Grade II (severe distension tolerable but affecting work/rest, 2 points); Grade III (severe, intolerable, persistent distension requiring medication, 3 points). Pain was assessed using the Numeric Rating Scale (NRS) 0-10, where 0 indicates no pain and 10 indicates the worst imaginable pain. Mild pain (1-3) is tolerable; moderate pain (4-6) affects sleep but remains tolerable; severe pain (7-10) is intolerable and affects appetite and sleep.

The patient's distension scored 3 points (severe), and pain scored 7 points (severe pain). Assessment revealed accompanying symptoms of agitation and restlessness. The primary cause of distension was attributed to colonic proximity to the pancreas and the presence of numerous pro-inflammatory factors in and around the pancreatic tissue in SAP patients, which can lead to intestinal obstruction.

## 2.2 Nursing Diagnoses

1. Abdominal pain and distension related to pancreatic and peripancreatic inflammation and edema
2. Risk for fluid volume deficit related to dehydration from vomiting
3. Imbalanced nutrition: less than body requirements related to anorexia, nausea, and vomiting
4. Activity intolerance related to dehydration and electrolyte loss from frequent vomiting
5. Anxiety and fear related to illness and prognosis concerns
6. Knowledge deficit regarding disease etiology and prevention
7. Risk for ineffective tube function related to tube blockage or dislodgement
8. Altered comfort related to severe distension and tenderness

**2.3 Nursing Plan** While implementing conventional anti-infection treatment as ordered, the plan incorporated TCM characteristic therapies of herbal enema combined with hot poultice to relieve abdominal pain and distension and reduce distension scores. Emotional nursing care would be provided to alleviate anxiety, along with comprehensive health education to build disease-coping confidence, ensuring the patient's physical and psychological well-being upon discharge.

**2.4.1 Abdominal Pain and Distension Nursing** The patient was placed in a semi-reclining position to reduce intra-abdominal pressure and its impact on thoracic space, thereby improving clinical symptoms while allowing rest. Pethidine was administered as ordered for pain relief when necessary, with pre- and post-medication effects monitored. Caution was exercised regarding repeated pethidine administration.

**2.4.2 Dietary Nursing** Strict fasting with fluid restriction was maintained initially, with parenteral nutritional support via intravenous infusion. As the condition stabilized and serum/urinary amylase levels normalized, the diet was gradually advanced from water to clear liquids, semi-solids, solid foods, and finally normal diet. Spicy, stimulating, cold, raw, and sticky foods remained prohibited. During dietary progression, high-calorie, high-protein foods were introduced to meet rehabilitation needs, while fried and greasy foods, alcohol, and constipation-inducing diets were avoided, with increased fruit and vegetable intake.

**2.4.3 Emotional Nursing** A harmonious nurse-patient relationship was established through patient listening, care, and concern to gain trust from both

patient and family. Communication was enhanced through verbal and non-verbal comfort measures to promote relaxation. Disease knowledge was introduced with successful case examples to build confidence. Family involvement was encouraged to increase security and obtain family/social support.

**2.4.4 Skin Care** Following herbal enema and hot poultice application, perianal and abdominal skin conditions were closely monitored for allergic reactions, redness, blisters, or itching, with prompt intervention as needed. After procedures, skin was cleansed with warm water and moisturizing cream applied for protection.

**2.4.5 TCM Characteristic Nursing Herbal Enema:** Per medical orders, 100 mL of prepared herbal decoction (composed of raw rhubarb 30g, mirabilite 30g [added separately], magnolia bark 10g, fried bitter orange 10g, white peony 15g, Sichuan chinaberry 15g, corydalis 15g, scutellaria 12g, coptis 6g, licorice 3g, and salvia 20g) was administered at 39-41°C. The patient was assisted into left lateral position with a pillow elevating the hips 10 cm. The enema tube was inserted 10-15 cm into the anus, and the herbal solution was slowly infused over 15-20 minutes. The solution was retained in the rectum/colon to achieve therapeutic effects through intestinal mucosal absorption, including heat-clearing, detoxification, softening hardness, dispelling turbidity, and promoting blood circulation.

**Hot Poultice Therapy:** Using a departmental formula consisting of mirabilite 300g, licorice 20g, rhubarb 20g, costus root 20g, salt-processed fennel 20g, processed evodia fruit 20g, and dried ginger 20g. The prepared herbs were slightly crushed, placed in a cotton bag, and securely tied. Prior to application, allergy history was thoroughly assessed. The poultice was heated in a microwave for 2-3 minutes on high power to reach 50-60°C, with caution to avoid overheating and burns. Application site: Ah Shi points on the abdomen. With the patient in supine position, the poultice was applied for 20-30 minutes twice daily to ensure full contact with the abdominal wall for optimal effect. Patient privacy was protected throughout treatment. Due to mirabilite liquefaction when heated, patients were instructed to change clothing promptly to maintain dry skin, clothing, and bedding. Additionally, as mirabilite hardens after deliquescence, timely replacement was required based on the degree of hardening.

## Results and Follow-up

Following intervention with combined TCM enema and hot poultice therapy, the patient's abdominal distension gradually improved. Within 3-7 days, distension was significantly relieved with restored gastrointestinal motility, passage of flatus, and bowel movements. By day 10, distension was essentially resolved with active bowel sounds, reduced abdominal girth, and no abdominal discomfort after eating. The patient's tension, ambivalence, and anxiety were alleviated. Throughout treatment, abdominal skin showed no redness,

itching, or allergic reactions, with attention to abdominal warmth. The patient actively cooperated with systematic treatment. Laboratory values on March 6 showed urinary amylase 1773 U/L, serum amylase 1288 U/L, WBC  $17.8 \times 10^9/L$ , HGB 170g/L, and NEUT  $\times 10^9/L$ .

Post-discharge, the patient maintained regular diet and sleep patterns, having quit smoking and alcohol. One-week follow-up revealed normal blood routine and biochemical tests (liver/kidney function, electrolytes, lipids, glucose, serum amylase) and normal whole abdominal CT, with no complaints and excellent recovery. Follow-up included continued lifestyle, dietary, and psychological counseling, with instructions to seek medical attention promptly if symptoms recurred.

## Discussion

With improving living standards and dietary changes, the incidence of acute pancreatitis has gradually increased. The systemic toxic reaction in SAP primarily results from absorption of free enzymes and vasoactive substances released from necrotic pancreatic and peripancreatic tissues by the peritoneum. Early elimination and reduced absorption of these substances can improve outcomes.

In TCM theory, SAP results from blocked fu organ qi leading to damp-heat accumulation in the middle jiao. The principle of “fu organs function through unobstructed flow” and “obstruction causes pain” guides treatment toward heat-clearing, detoxification, blood circulation promotion, and bowel purgation. In the formula, raw rhubarb purges, removes stagnation, and clears fire; mirabilite, bitter orange, and magnolia bark unblock fu organs and expel turbidity; salvia promotes blood circulation; scutellaria and coptis clear damp-heat. Through rectal and sigmoid colon stimulation, the formula increases intestinal fluid secretion, softens stool, prevents bacterial translocation and toxin absorption, inhibits pancreatic enzyme secretion, relaxes the sphincter of Oddi, and improves pancreatic microcirculation. Herbal retention enema utilizes direct intestinal mucosal absorption for therapeutic effects. The prolonged retention of enema fluid in the intestinal cavity inhibits pancreatic enzyme activity, maintains intestinal mucosal barrier function, promotes gastrointestinal motility, accelerates elimination of inflammatory factors, and reduces their production.

The hot poultice formula includes: mirabilite for softening hardness, purgation, and pain relief; evodia and fennel for warming the middle and relieving pain; dried ginger for warming the middle and dispelling cold; rhubarb for purgation, choleresis, and anti-inflammatory analgesia; costus root for moving qi, strengthening the spleen, and soothing the liver/gallbladder; and licorice to moderate the purgative effects of rhubarb and mirabilite. The hot steam from the poultice dilates local capillaries, accelerates blood circulation, and allows herbal components to penetrate skin to reach acupoints, meridians, and pain points at optimal temperature, achieving meridian-warming, qi-blood harmonizing, and cold-dampness dispelling effects. Therefore, in comprehensive SAP

treatment, combined TCM enema and hot poultice application to Ah Shi points effectively eliminates retained stool and bacterial toxins from intestinal paralysis while reducing inflammatory exudate, improving the pathological process of acute pancreatitis and promoting gastrointestinal function recovery to alleviate abdominal symptoms. Early detection, diagnosis, and treatment are key to successful management. Clinical nursing care for SAP requires strict adherence to operational protocols and care pathways to ensure optimal outcomes.

Through this case, we profoundly experienced the significant effects of this combined therapy in relieving distension and promoting intestinal function recovery. However, we recognize certain limitations, such as variations in enema administration speed and duration, and the hardening of mirabilite pouches after application requiring attention to skin condition. These aspects warrant improvement in future practice. Through continuous experience accumulation and quality improvement, we can provide safer and more effective nursing care for our patients.

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