

# Incomplete Intestinal Obstruction in Children Treated with Integrated Traditional Chinese and Western Medicine A Case Report

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**Abstract: Background:** Pseudo-intestinal obstruction<sup>[1]</sup> refers to the obstruction of intestinal contents caused by lesions in and out of the intestinal canal. The main clinical manifestations are abdominal pain, vomiting, constipation, defecation and exhaust difficulties. Pseudo-intestinal obstruction is a common disease in abdominal surgery. **Objective:** To discuss a 4 years old child who was diagnosed as Pseudo-intestinal obstruction after complete examination due to repeated fever, sore throat and abdominal pain about 2 days. Abdominal pain disappeared and obstruction was eliminated after treatment with integrated traditional Chinese and Western medicine. **Conclusions:** After 1 month follow-up, the patient's condition was stable without recurrence. The treatment advantages of the case lie in: first, because the indication of incomplete intestinal obstruction operation is not strong, we can choose Western medicine to improve the symptoms of obstruction, and then use TCM for nursing, always focusing on the concept of "giving consideration to both specimens", Second, it is a relatively safe and effective treatment. Third, it is also the biggest feature of the disease that the characteristic treatment of traditional Chinese and Western medicine when incomplete intestinal obstruction and respiratory tract infection coexist. Therefore, effective combination therapy may be a worthwhile option to try.

**Keywords:** Pseudo-Intestinal Obstruction; Chinese Medicine; Western Medicine

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## Introduction

Intestinal obstruction can be divided into complete intestinal obstruction and incomplete intestinal obstruction<sup>[2]</sup>. For patients with incomplete intestinal obstruction, the treatment plan often adopted in clinical practice are fasting, indwelling gastric tube, continuous gastrointestinal decompression, supplementing water, electrolyte and vitamins, anti infection, enema and other symptomatic support treatment<sup>[3]</sup>. TCM treatment: oral administration of TCM, enema, application or packaging, ordinary acupuncture, massage, etc<sup>[4-6]</sup>. Western medicine treatment has the characteristics of quick effect and many choices, while TCM treatment has the advantages of stable property and small side effects, so perhaps the combination of Chinese and Western medicine will achieve better curative effect<sup>[7]</sup>. In this paper, the combination of traditional Chinese and Western medicine is used to supplement each other and achieve better therapeutic effect, which is conducive to the treatment of diseases.

## 1. Patient and Treatment

The patient, Mr. Zhang, 4 years old, was admitted to the hospital on March 7, 2022 because of repeated fever, sore throat and abdominal pain about 2 days. The body temperature was 38.0°C, accompanied by abdominal pain and discomfort. He was mainly around the umbilicus, showing paroxysmal colic. He vomited five times. At that time, the blood routine examination at the other hospital showed that: white blood cell 11.13x10<sup>9</sup>/L red blood cell 5.12x10<sup>12</sup>/L, neutrophil count 9.44x10<sup>9</sup>/L, neutrophil percentage 84.8%. Abdominal standing plain film: multiple small air-liquid levels in abdominal cavity, incomplete intestinal obstruction? Color Doppler ultrasound of abdomen + appendix + intussusception: no obvious

abnormality, no abnormal mass and effusion are found in the right lower abdomen McGonagall area, no typical intussusception sonogram is found in the abdomen. After examination, the diagnosis was "acute tonsillitis and acute gastroenteritis", after treatment with "Bifidobacterium tetralogy 1g po tid, Cefixime granules 40mg po bid, Kangfuxin Liquid 6ml po tid, Intestines and stomach are scattered 2g for external use (cleansing enema) qd" for 2 days, the symptoms of abdominal pain were slightly relieved, but repeated fever, persistent pharyngeal pain and intermittent abdominal pain still existed. Family members asked for TCM intervention. Current symptoms: body heat, body temperature 38.0°C, sore throat, paroxysmal epigastric colic, no other discomfort, mental weakness, poor appetite, urination is normal, yellow dilute stool is relieved for 3 times, and the taste is smelly. The tongue is red, the moss is white and greasy, and the pulse is stringy. Physical examination: T: 38°C, P: 126 times/min, R: 24 times/min, mental weakness, pharyngeal hyperemia, no purulent spots, tonsillar swelling II°, palpation of abdomen is soft, upper abdomen and periumbilical tenderness are slight, bowel sounds are normal. The plain film of abdominal standing position after admission showed signs of intestinal obstruction.

Western medicine diagnosis are acute tonsillitis and incomplete intestinal obstruction. The diagnosis of traditional Chinese medicine are milk moth and abdominal pain. Syndrome differentiation: diseases involving Taiyang and Yangming. The main recipe: Magnolia officinalis qiwi decoction. Drug composition: cassia twig 6g, zhigancao 5g, dates 5g, rheum officinale 5g (posterior), jianghoupou 6g, fried Fructus aurantii 6g, 2 doses, a dose of daily, decoct in water (add 3 slices of ginger), take a small amount frequently. External acupoint application of traditional Chinese medicine (Jianpi ointment: Shangwan, Zhongwan, Double (Tianshu, Xiajuxu, Yanglingquan, Shangjuxu) remove after 4 hours) to invigorate the spleen and stomach, tongfu and relieve pain (White peony, angelica, Atractylodes macrocephala, Pinellia ternata, Evodia rutaecarpa, Codonopsis pilosula and Astragalus membranaceus 20g each, Liushenqu, malt, tangerine peel, hawthorn and chicken nugget 30g each). Grind it into powder and mix it with water to form a paste. Grind the upper part into powder, mix it with water to form a paste, and place it at 3.5cm×3.5cm blank paste, and then paste on the acupoints); Moxibustion (lung acupoint and Dazhui acupoint) expels wind, diffuses lung and relieves external symptoms (method: Ignite the moxa stick and fix it in the air. The moxa stick is about 3cm away from the acupoint. Each point is moxibustion for 3 ~ 5min until the local part is slightly red, QD)

## 2. Result

Visit 1: Mar 9, 2022. After two days of Western medicine treatment, the effect of the child was poor, and the family members asked for TCM treatment.

Treatment 2: Mar 7, 2022. After three days of oral administration of Houpuqiwi decoction and acupoint application and moxibustion, the child did not complain of abdominal pain and fever. So continue the above treatment plan, and at the same time, order frequent taking of rice soup.

Treatment 3: Mar 10, 2022. The child has a dull abdominal pain, slight redness and swelling of throat, with a little sweat, no other special, red tongue, white and greasy fur, stringy pulse. Physical examination: the abdomen is soft, the palpation skin temperature is high, and the abdominal standing film reexamined: no obvious signs of intestinal obstruction. Adjust the oral administration of 2 doses of tiaoweichengqi decoction. Treatment: regulate gastrointestinal tract and dredge stomach qi.

Treatment 4: Mar 13, 2022. The child has no special discomfort, abdominal physical examination (-). Continue to take tiaoweichengqi decoction orally for one day, and ask the child to take a small amount of liquid soft food for many times. It is allowed to leave the hospital.

## 3. Discussion

This case can be treated in two stages. The first stage, western medicine is given for 2 days, which is given Bifidobacterium tetralogy live bacteria to regulate intestinal flora, improve abdominal pain and stool properties, promote defecation and improve symptoms<sup>[8]</sup>. The child were diagnosed with digestive tract and respiratory tract diseases. The use of probiotics<sup>[9]</sup> also has anti-inflammatory effect on upper respiratory tract infection. Cefixime granules<sup>[10]</sup> have broad antibacterial spectrum, long half-life, low cross resistance, low dose and good permeability, they have antibacterial effects on common bacteria in the digestive tract and respiratory tract, and their side effects are very light<sup>[11]</sup>. Kangfuxin Liquid contains

a variety of components, which can repair human wounds, and also has anti-inflammatory, antibacterial, analgesic and immune enhancing functions<sup>[12]</sup>. Changwei powder can improve the symptoms of abdominal distension, abdominal pain, diarrhea and gastric distension. This case of children can also achieve the therapeutic effect by cleaning enema. The main effect is that retention enema with TCM<sup>[13]</sup> can stimulate rectal wall receptors, enhance intestinal peristalsis and defecation reaction, so as to improve abdominal pain<sup>[14]</sup>. The above four drugs are used together to achieve the effects of anti-inflammatory, regulating gastrointestinal flora, promoting defecation and pain relief.

The second stage is mainly treated with TCM. TCM believes that this disease is mainly caused by flatulence, disharmony of qi and blood, and dysfunction of circulation and descent. Obstruction leads to pain, qi stagnation leads to inflation, and circulation of vital energy in the wrong direction leads to vomiting. Suwen, Wuzang says: The six fu organs transmit things but do not hide them. Six fu-organs unobstructed in function, Therefore, in the treatment, we should adopt the active method of "dredging the interior and attacking the bottom", so that the six fu organs' qi movement can restore its characteristics of dredging, lowering and descending. Children have delicate viscera and weak physique, Susceptible to foreign pathogenic qi, Exogenous Pathogenic Factors goes from the exterior to the interior, Invasion of the lung system, combined with improper diet, damage to the spleen, stomach and intestines, causes fever, sore throat, abdominal pain and vomiting, it is argued that Tai-Yang disease is combined with the Yang-Ming disease, the use of Houpuqiwi decoction can treat these two combined diseases. It was first recorded in the "XinBianJinKuiFangLun": the abdomen is full, the fever lasts for ten days, the pulse floats and counts, the diet remains the same, and the Magnolia officinalis qiwi decoction is the master. The patient is suffering from the same disease both inside and outside, which is consistent with the original version of Houpuqiwi decoction. Magnolia officinalis has the effect of promoting qi, eliminating fullness, guiding stagnation and calming the qi of the Fu organs. Rhubarb relieves heat, relieves defecation, reduces turbid qi, and enables turbid qi to flow out smoothly through the qi borrowing machine. Cinnamon twigs can relieve the muscle and disperse the cold, and make the qi of the camp and the guard harmonious. When used with ginger, it has a special ability to relieve muscles and strong ability to dispel cold. Fructus aurantii can reduce heat and eliminate pimples. When used with Magnolia officinalis, it can enhance the regulating qi mechanism, when used with rhubarb, it can relieve heat and relieve constipation, contain heat to regulate qi, so that pathogeny can not gather and dissipate. Licorice and jujube are beneficial to qi. On the one hand, they can help Ramulus Cinnamomi and Ginger to reconcile their qi to resist and expel pathogenic; Second, it can make Magnolia officinalis, Rheum palmatum and Fructus aurantii clear away heat without damaging healthy qi.

It has been clinically studied that Houpu qiwi decoction has definite curative effect on digestive system diseases with abdominal distension, abdominal pain, constipation and stool cessation as the main symptoms<sup>[15, 16]</sup>. Wangchangru<sup>[17]</sup> found through research that Houpu qiwi decoction can significantly promote gastric emptying and intestinal propulsion in mice. Moreover, yuanhongxia<sup>[18]</sup> also confirmed that Houpuqiwi decoction can treat exterior evil besides abdominal fullness pain and constipation through clinical cases of children. After oral administration of Magnolia officinalisqiwi decoction, the symptoms of the children gradually improved and the pathogenic heat in the intestines gradually disappeared. It may be related to the interaction between TCM and probiotics. Wanghaoran<sup>[19]</sup> found that probiotics and TCM have synergistic effects. First, TCM selectively stimulates the growth of probiotics in the intestine, which is conducive to gastrointestinal peristalsis and promotes the elimination of obstruction. The second probiotics help the metabolism of TCM to further exert its efficacy. Re examination of the abdominal position plain film showed that no obvious signs of intestinal obstruction were found, but the abdominal skin temperature was still high. Considering that pathogenic qi still remains and combination with the child's thin body, tiaoweichengqi decoction was adjusted, which only three traditional Chinese medicines, of which rhubarb was bitter cold to promote defecation and remove the stagnant pathogenic heat in the stomach, Mirabilite can moisten dryness with softness and firmness, relieve heat and relieve constipation, Roasted licorice can replenish qi and nourish the stomach. It is gentle and moderate. It can harmonize rhubarb and Glauber's salt to relieve heat and make it gentle. Huangdi<sup>[20]</sup> believes that tiaoweichengqi decoction can not only moisten the stomach and intestines, but also retain the lower Jiao Yin liquid. In addition, the Yang Ming of children is weak. If the diarrhea is severe, it will hurt the Yin fluid. The use of this formula can moisten the gastrointestinal tract, make the dry knot from the bottom, and leave the body fluid to protect the stomach qi. In the first stage, Cefixime<sup>[21]</sup> inhibited the synthesis of bacterial cell wall, killed bacteria, and combined with

Bifidobacterium. Its mechanism inhibited the pathogenic bacteria, accelerated the absorption of nutrients, hindered the formation of enterogenous toxins, and adjusted the imbalance of intestinal flora. The use of tiaoweichengqi decoction in the subsequent recovery period is further conducive to the growth of intestinal microenvironment<sup>[22]</sup>, so as to achieve the purpose of eliminating obstruction.

Some studies have shown that the active treatment of incomplete intestinal obstruction with the combination of traditional Chinese and Western medicine can achieve satisfactory treatment results, which is of clinical significance<sup>[23]</sup>. The treatment of incomplete intestinal obstruction with integrated traditional Chinese and Western medicine has been paid more and more attention by clinicians and accepted by patients. We will try more integrated traditional Chinese and Western medicine treatment schemes in clinical practice.

## Conflict of interest

There is not a conflict of interest for authors.

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