A huge gastric bezoar treated by traditional Chinese medicine purgative
A case report
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Abstract
Rationale: Currently, the mainstream treatment for gastric bezoars is endoscopic lithotripsy. This report describes traditional Chinese medicine (TCM) purgative cured a 62-year-old woman with a huge gastric bezoar accompanied by isolated esophageal venous aneurysms and multiple bleeding gastric ulcers.

Patient concerns: A 62-year-old woman with several symptoms, including epigastric pain, nausea, and vomiting, hiccups, heartburn, and dark, loose stools. The patient showed abdominal tenderness, positive Murphy sign, hyperactive bowel sounds, a pale tongue with scalloped edges, greasy moss, and pulse moisten. A complementary examination revealed the presence of occult blood in the vomit.

Diagnosis: The patient was diagnosed with isolated esophageal venous aneurysms, gastric bezoars, and multiple bleeding gastric ulcers. Gastroscopy revealed a 0.6 cm blue uplift, a smooth surface, and a regular and clearly defined dentate line. A large bezoar was observed in the stomach cavity with a dark red blood in the surface. The gastric angle showed multiple lesions, with their largest diameter being 2.5 cm, blood was oozing from these ulcers.

Interventions: The patient was prescribed a TCM purgative combined with omeprazole enteric-coated tablets. Three days after admission, the patient was diagnosed with isolated esophageal venous aneurysms, gastric bezoars, multiple bleeding gastric ulcers. A specific herbal formula was prescribed to eliminate the bezoar. In addition, conventional western medicine was used for the patient, such as pantoprazole sodium intravenous infusion to inhibit gastric acid and sodium bicarbonate solution orally to soften the gastric bezoar.

Outcomes: After 5 days, the patient had complete relief from all remaining symptoms, including stomach pain and hiccups. Follow-up gastroscopy revealed that the venous aneurysm and gastric bezoar had disappeared, and the ulcer had reduced in size to approximately 0.6 to 0.8 cm. The patient was discharged after recovery and did not relapse for 3 years.

Lessons: TCM combined with conventional western medicine to treat huge gastric bezoars and its complications is effective and safe, and worth to be recommended as an alternative to endoscopic lithotripsy.

Abbreviations: TCM = Traditional Chinese medicine.
Keywords: gastric hemorrhagic ulcer, huge gastric bezoar, purgative treatment, TCM
1. Introduction

Gastric bezoars occur when certain drugs or foods aggregate in the stomach, forming a coagulum or lump that cannot be digested; hence, it remains there as a foreign body and is unable to pass through the pylorus. Gastric bezoar is commonly seen in the digestive system; currently, the mainstream treatment for gastric bezoars is endoscopic lithotripsy. However, that method is painful, expensive, and carries the risk of complications such as bleeding or throat injuries. Huge gastric bezoars with ulcer bleeding often require surgical treatment, which is characterized by considerable trauma, slow postoperative recovery, and the risk of complications such as intestinal adhesion. The main clinical manifestations of gastric bezoars are epigastric pain, abdominal distension, and pain on abdominal palpation. However, other symptoms may occur, including loss of appetite, nausea and vomiting, regurgitation, and heartburn. If not treated on time, gastric bezoars may lead to obstruction, perforation, or hemorrhage of the upper digestive tract. Although the causes of bezoar formation may differ worldwide, diet changes have greatly increased their incidence. Currently, standard treatments for gastric bezoars include endoscopy, medications, and surgical treatment. Purgative treatments, a therapeutic approach within TCM, exert a prominent curative effect and are characterized by less pain, risks, and costs. Purgatives can treat huge bezoars with ulcer bleeding, which is difficult to cure with conventional medications. Therefore, it is a promising therapy worthy of being promoted and implemented worldwide.

2. Case report

A 62-year-old woman presented with epigastric pain and black, thin stools after taking Compound Diclofenac Sodium Chlorphenamine Maleate capsules 5 days ago. The patient had been diagnosed with “acute gastritis” and “gallstones” in another hospital. However, after taking the prescribed medications (including Domperidone tablets and anisodamine), several symptoms persisted. The patient was therefore admitted to our hospital with the following symptoms: epigastric pain, nausea, vomiting, hiccups, acid reflux, heartburn (which aggravated after eating), and thin stools. On performing a physical examination, the patient showed abdominal tenderness, positive Murphy sign, hyperactive bowel sounds (5–7 times/min, gurgling), a pale tongue with scalloped edges, greasy moss, and pulse moisten. A complementary examination revealed the presence of occult blood in the vomit. The patient was prescribed a TCM purgative (1 dose per day, divided into 2 doses) to regulate the Qi and gastric function, hence promoting digestion. The purgative was combined with omeprazole enteric-coated tablets orally, 20 mg each time, twice a day. After taking the prescribed decoction for 2 days, the patient experienced some relief from the stomach ache and complete relief from nausea, vomiting, regurgitation, and heartburn. The stools were of normal color but remained somewhat thin. Occasional hiccups remained. Gastroscopy, which was performed 3 days after admission, revealed a 0.6 cm blue uplift, a smooth surface, and a regular and clearly defined dentate line. A large bezoar was observed in the stomach cavity with a dark red blood in the surface. The gastric fundus could not be observed, and the gastric angle showed multiple lesions, with their largest diameter being 2.5 cm. There was visible bleeding. The patient was diagnosed with isolated esophageal venous aneurysms, gastric bezoars, and multiple bleeding gastric ulcers (Fig. 1).

Therefore, a specific herbal formula was prescribed to eliminate the bezoar. It consisted of 6 g of *Rhubarb*, 15 g of *Magnolia officinalis*, 30 g of *Fructus Aurantii*, 30 g of *Radix Carcuma*, 30 g of *Endobehemum Corneum Gigeriae Galli*, 30 g of *Charred Areca Seed*, 15 g of *Radix Aucklandiae*, 15 g of *Rhizoma Corydalis*, 30 g of *Fructus Trichosanthis*, 15 g of *Radix Salviae Miltiorrhiza*, 10 g of *Rhizoma Ligustici Chuanxiong*, 15 g of *Radix Paeoniae Alba*, 10 g of *Rhizoma Sparganii*, 10 g of *Rhizoma Carcuma*, 15 g of *Indian bread*, 20 g of *Semen Coicis*, 15 g of *Massa Medicata Fermentata*, 15 g of *Fructus Hordei Germinatus*, and 6 g of prepared liquorice root. The omeprazole enteric-coated tablets were substituted by pantoprazole sodium intravenous infusion, 40 mg each time, twice a day, to inhibit the gastric acid secretion. The patient was also prescribed a special diet and was instructed to drink plenty of water. After taking the herbal formula for 5 days, the patient showed considerable improvement: the stools returned to normal color, and the amount of bleeding was significantly reduced. Gastroscopy performed 1 week after admission showed a significant improvement in the lesions, with the largest diameter being 2 cm. The patient was discharged with no further bleeding, and no significant symptoms were observed.

Figure 1. Electronic gastroscopy report before treatment.
gastric acid, 5% sodium bicarbonate solution orally, 10mL each time, 4 times a day, to soften the gastric bezoar. After 5 days, the patient had complete relief from all remaining symptoms, including stomach pain and hiccups. Follow-up gastroscopy revealed that the venous aneurysm and gastric bezoar had disappeared, and that the ulcer had reduced in size to approximately 0.6 to 0.8cm. A white fur-coated surface was observed, with visible epithelial regeneration and no active bleeding. The patient was then diagnosed with multiple gastric ulcers (H1 stage) and duodenal bulb inflammation (Fig. 2), and was also discharged from the hospital soon. No adverse and unanticipated events occurred during treatment. Upon hospital discharge, the patient was encouraged to keep warm and comfortable, to have a regular diet, and to keep a good mood. We followed up the patient for more than 3 years and the gastric bezoar did not relapse.

3. Discussion

Gastric bezoar is commonly seen in the digestive system, and its incidence is increasing every year. The clinical manifestations of gastric bezoars include abdominal discomfort, pain, fullness, acid regurgitation, heartburn, and nausea and vomiting. Its complications include gastric ulcers, bleeding, perforations, and obstruction, with gastric ulcers being the most common.[2] Physical examination may reveal tenderness or discomfort in the upper abdomen, and in some cases, mass palpation is possible. The diagnosis can be confirmed by gastroscopy and X-ray images. Treatment of gastric bezoars consist of endoscopy, medications, and surgical treatment. The mainstream method consists of endoscopic mechanical lithotripsy complemented with medications. Endoscopic mechanical lithotripsy consists of physical methods such as stone extraction or drug dissolution, which are associated with risks such as trauma, slow recovery, throat lesions, and choking. Furthermore, it is expensive. The treatments used in western medicine mainly consist of inhibiting gastric acid secretion or neutralizing secreted acids. While those treatments are suitable for recent, small, or soft gastric bezoars,[3] they are often ineffective for old, massive, or hard bezoars. Surgical treatment is indicated in such cases, particularly when associated with digestive tract obstruction, perforation, or hemorrhage. In recent years, TCM has undergone some developments for treating gastric bezoars. The treatments proposed by TCM are low cost and effective in neutralizing gastric acids, dissolving bezoars, promoting gastrointestinal emptying, and protecting mucosal function. Furthermore, they are noninvasive.[5] This case report supports the use of TCM treatments for curing gastric bezoars, including huge gastric bezoars, complicated by hemorrhagic gastric ulcers.

In TCM, the presence of gastric bezoars falls within the category of “Accumulation” or “Abdominal mass,”[3] which has spleen and stomach weakness, improper diet, and long-term food stagnation as underlying causes. The formation of bezoars in the spleen or stomach is caused by spleen or stomach weakness, improper diet, and food stagnation for long periods, causing it to accumulate and form a lump.[8] We believe that the bezoar then blocks the Qi, leading to an obstruction that causes epigastric pain. Stomach disharmony and Qi obstruction in the upper stomach causes hiccups and nausea and vomiting. The spleen is no longer divided into turbid yin and lucid yang, which generate black and loose stools. A pale tongue with scalloped edges, greasy moss, and pulse moisten is a reflection of the spleen and stomach weakness and Qi stagnation due to the bezoar. Using a
Xiaochengqi decoction leads to the patency of the intestinal tract.\[7\] It consists of *Rhubarb, Magnolia officinalis, Fructus Aurantii*. The *rhubarb* is bitter and cold, which can eliminate heat, reduce excess and relax the bowel, and get rid of the old and introduce new.\[8\] The main components of *Rhubarb* are anthraquinones, bianthrones, phenylketones, stibene glycosides, and tannins.\[9,10\] Modern pharmacological studies have shown that sennoside and anthraquinones are the main active components of diarrhea effect of *rhubarb*.\[11\]

*Magnolia of ficalis* is bitter and warm, and it can promote Qi and remove fullness; *Fructus Aurantii* is bitter and slightly cold, and can regulate Qi and remove distension.\[12\] The combination of 3 herbs will help patients to relax the bowel and remove fullness. *Endothelium Corneum Gigeriae Galli* promotes food digestion and melts accumulation. *Radix Curcumae* moves the Qi eliminating stagnation. *Rhizoma Corydalis* and *Radix Paeoniae* relieve pain. *Indian bread, Semen Coicis, Massa Medicata Fermentata, Fructus Hordei Germinatus*, and prepared liquorice root invigorate the spleen, promote digestion, and protect the stomach’s Qi. These herbs play an important role in strengthening and regulating the Qi and removing stasis, thus strengthening the spleen and stomach. In addition, conventional western medicine was also used for the patient in this case, such as pantoprazole sodium and sodium bicarbonate, which contribute to the cure by inhibiting gastric acid, hence healing the multiple ulcers and softening the bezoar.

4. Conclusion

This case report strongly supports the use of TCM combined with conventional western medicine to optimize the cure of huge gastric bezoars. TCM has several advantages, including non-invasiveness, absence of pain and trauma, fast healing effect, low cost, and low risk of side effects or other complications. TCM combined with conventional western medicine to treat gastric bezoars and its complications is effective and safe, and worth to be recommended as an alternative to endoscopic lithotripsy.

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Author contributions

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