

Treatment and Clinical Care of Peptic Ulcer

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Abstract:

This paper conducts in-depth research on the treatment, nursing and health education of peptic ulcer patients, discusses and summarizes the treatment and nursing methods of the disease, which has a significant improvement effect on the patient's condition.

Keywords:

Peptic Ulcer, Treatment, Nursing

1. Introduction

Peptic ulcer is a common disease that can be caused by a variety of factors. In this paper, the basic knowledge and health guidance of peptic ulcer are studied, and the treatment and nursing methods of the disease are discussed and summarized.

2. The Basic Knowledge of Peptic Ulcer Disease

2.1. Concept and epidemiology of peptic ulcer disease

Peptic ulcer (Pepticulcer, brief PU) is due to gastric acid or pepsin itself on the gastrointestinal mucosa digestion, more occur in the stomach and duodenal ball, caused by chronic ulcer. Ulcer is when the mucosal damage exceeds the muscle layer (involving the submucosa, which can contain blood vessels). The most common are gastric ulcer (GU), duodenal ulcer (DU), the bulb is more prone to duodenal ulcer. [1]

About 10% of the population has suffered from this disease, more men, the ratio of men to women is 3 to 4:1. DU is more common in clinical, early onset, the most significant is young adults. This disease has familial nature, O type blood is more common, it is a good season at the turn of autumn, winter and spring (sudden temperature change leads to autonomic nerve disorders).

2.2. The etiology of peptic ulcer disease

The gastric mucosal injury factors include: Helicobacter pylori (HP), non-steroidal anti-inflammatory drugs (NSAIDs), gastric acid and pepsin (gastric acid and pepsin), and others, such as alcohol, diet, environment, stress, bile, etc.

(1) HP infect:

Helicobacter pylori relies on its adhesins to bind the skin cells on the gastric mucosa, and can also secrete high activity urea enzyme to make urea decomposition into NH_3 , and gastric acid synthesis, damage to the epithelial cell membrane, forming a neutral environment conducive to settlement and reproduction. HP infection breaks the balance of mucosal infestation factors and defense factors, and oral infection is the most common mode of infection. Eradication of HP promotes healing and reduces the recurrence rate, while also reducing bleeding.

(2) Non-steroidal antiinflammatory drugs (NSAID):

The use of NSAIDs can locally damage the gastric mucosa and systematically inhibit prostaglandin (PGE) synthesis. Endoscopic observation showed that the gastric mucosa of erosion or bleeding accounted for 50%, 10% to 25% was gastric or duodenal ulcer, and 1% to 2% was bleeding and perforation.

(3) Stomach acid and pepsin (determinants):

“No acid, no ulcer”, mucosal digestion is due to gastric acid or pepsin, the formation of peptic ulcer. At $\text{Ph} < 4$, pepsin activity was PH dependence and lost its activity, so gastric acid was the dominant effect.

(4) else:

Delaying gastric emptying and bile reflux can aggravate HP infection of gastric mucosa and aggravate NSAID damage. Family history, bad living habits, smoking and drinking, long-term anxiety, overwork and other factors can affect the occurrence of peptic ulcer.

2.3. Pathological and clinical manifestations of peptic ulcer disease

Peptic ulcer is generally single, can also be multiple, round or oval, diameter less than 10mm. The gastric ulcer is slightly larger than the duodenal ulcer, even the base edge of the mucosa is smooth, the bottom is clean, composed of granulation tissue, covered with gray or yellowish fibrous exudates. The mucosa around the active ulcer often has inflammatory edema, which can involve the muscle layer of the gastric wall, and even the serosa layer. When breaking and bleeding, the plasma membrane layer causes perforation. Whether it is duodenal ulcer or gastric ulcer, the surrounding mucosa often has *H. pylori* infection, and the pathological sections can be found with common stains. After often leave scars, easy to relapse. Malformation and pyloric stenosis can be caused by scar contraction or adhesion to the serosa and surrounding tissues. [2]

Peptic ulcers present with upper abdominal pain, being chronic, periodic, and rhythmic. Gastric ulcer after eating pain, duodenal ulcer after eating pain is reduced. Other symptoms can be belching, acid reflux, nausea, vomiting and so on.

3. The Diagnosis and Treatment of Peptic Ulcer Methods and Treatment Points

3.1. Diagnosis and treatment of peptic ulcer disease

Clinical symptoms, laboratory tests and other tests are usually the diagnosis and treatment of digestive ulcers.

(1) Fibroptic gastroscopy: it has a diagnostic value for peptic ulcer disease.

(2) X-line barium meal examination: the main X line is niche or shadow. In the front view, it is round or oval, with neat edges, forming a circular and transparent area.

(3) HP examination method: rapid urease test, HP culture, tissue study test, serological test, carbon 13 and carbon 14 urea breath test.

(4) Stomach juice analysis: GU gastric acid secretion was normal or slightly lower; DU increased, more obvious at night or fasting.

(5) Fecal occult blood test: positive test indicates possible ulcer; GU continued positive, cancer can be suspected.

3.2. Key points of the treatment of peptic ulcer disease

(1) general treatment:

Regular living rules, combination of work and rest, full rest, stable mood, smoking, alcohol, prohibited non-steroidal anti-inflammatory drugs.

Diet: protein > 1g / kg, moderate fat, adequate carbohydrates, rich in vitamins. Avoid coffee, strong tea, cola, spicy and other rough, too cold overheating and stimulating food; coarse grains, miscellaneous beans, nuts, many fiber food (such as bamboo shoots, celery, leek, bean sprouts, raw radish, onion, strawberry, hawthorn, etc.). The serious condition uses liquid or less slag semi-liquid diet, light use less slag soft rice, to contain a large amount of slag.

(2) medication:

Radical cure of *Helicobacter pylori*: can make the triple drug. PPI or colloidal bismuth agents and antimicrobial agents.

Reduce gastric acid: use antacids, proton pump (H-K-ATP enzyme) inhibitors, PPI, and M receptor blockers.

Protect the gastric mucosa: adhere to the ulcer surface to form a protective film, prevent the ulcer surface from gastric acid and pepsin, and increase the colloidal bismuth citrate CBS, aluminum, misoprostol, which increase the defense ability of gastric mucosa.

(3) surgical service:

Heavy bleeding and ineffective medical treatment; acute perforation; cicatricial pyloric obstruction; suspected cancerous gastric ulcer.

4. The Care of Peptic Ulcer

4.1. Assessment and goals of care for peptic ulcer

(1) Medical history: to analyze the etiology and causes; to evaluate the psychological status.

(2) Physical assessment: inquire about the location, time and nature of the pain.

(3) Laboratory examination: blood routine; *Helicobacter pylori*, barium meal and gastroscopy.

Reduce abdominal pain, describe the causes and precautions for insomnia, reduce anxiety and stress, describe the prevention and health knowledge of peptic ulcer, as the secondary goal.

4.2. Primary care diagnosis / problem of peptic ulcer disease

- (1) Pain: related to surgical trauma, inflammation, ulcer, and its complications.
- (2) Nutritional disorders: with lower than the body's needs, reduced food intake, ulcer pain related.
- (3) Potential complications:

Upper gastrointestinal bleeding: related to vascular injury, it is caused by ulcer focus activity. Pyloric obstruction: related to the formation of scars caused by recurrent ulcerative lesions, pyloric stenosis leads to pyloric obstruction. Acute perforation: associated with focal penetration of ulcers in the serous layer of the gastrointestinal wall.

4.3. Nursing measures for peptic ulcer disease

General care: (1) Appropriate activities and rest, work and rest combined. Exercise can not only increase the vital capacity, but also promote the separation of beneficial enzymes in the stomach, and have a protective effect on the gastrointestinal mucosa. Avoid strenuous exercise after meals. (2) Diet recuperation: regular and quantitative, a small number of meals, eat slowly, reduce gastric acid secretion, make gastric acid secretion regular, saliva secretion increased, the selection of rich nutrition, easy to digest, low fat, moderate amount of protein and noodle food, small stimulating food, and often do nutritional status monitoring. [3]

Help patients to understand and remove the cause: (1) Patients taking non-steroidal anti-inflammatory drugs should be stopped. (2) Avoid eating too full, too much spicy, so as not to damage and aggravate the gastrointestinal mucosa. (3) Supervise and urge the implementation of smoking cessation and drinking.

Disease monitoring: observe the rules and characteristics of abdominal pain, and guide the pain method in each link according to its characteristics. (1) DU patients are characterized by empty abdominal pain or midnight pain, and guide patients to prepare acidic food (soda cookies, etc.) to eat before the pain. (2) To prevent pain, an acid preparation agent can be taken. (3) Use local hot compress or acupuncture to relieve the pain. (4) When abdominal pain, perforation or peritonitis, should immediately to the hospital.

Drug care: (1) 1h after meals or before going to bed, shake the milk, chew the tablets, avoid taking with the formation of complex acid drinks, avoid taking with milk, if taken with milk, should take antacid drugs in time. (2) Aluminum hydroxide gel will cause P (phosphorus) deficiency, causing loss of appetite, weakness or constipation, can be used alternately in magnesium hydroxide. (3) Take H2RA drugs during or after meals, control the speed, otherwise it will cause hypotension and other conditions. (4) PPI can cause dizziness. (5) sulfur aluminum effective in acidic environment, good effect on duodenal ulcer. Do not take with polyenzyme tablets, 1 hour before the meal. It can cause constipation, dry mouth, red rash and other symptoms.

5. Health Guidance for Peptic Ulcers

5.1. Disease knowledge and medication guidance

Establishing reasonable eating habits and structure, quit smoking and drinking, explain the causes and aggravating factors of ulcers, maintain daily rules, appropriate release of pressure, physical exercise, which can vary from time to person to person, usually can be through jogging, Taijiquan and other ways. Exercise is a long process, the intensity of each exercise is not too much. Take medicine according to the doctor's advice, do not stop medicine, do not reduce medicine, do not use NSAIDs drugs.

5.2. Promote disease rehabilitation and disease monitoring

Often mo abdominal health and other related traditional Chinese medicine health knowledge can be learned by yourself, before sleeping, rub your hands hot, to clockwise gently knead the abdomen to slightly heat, not only promote digestion, but also can relieve constipation, has a good benefit for health. If the pain rhythm changes, see a doctor immediately, with regular physical examination and outpatient review.

6. Conclusions

The peptic ulcer is a common gastrointestinal diseases, etiology complex. The clinical manifestations included epigastric pain, belching and acid reflux. The diagnosis and treatment methods include clinical symptoms, laboratory tests, fiberoptic gastroscopy, etc. The key points of treatment include general treatment, drug treatment and surgical treatment. Nursing needs comprehensive assessment, corresponding nursing measures, and health guidance, including disease knowledge and medication guidance, promoting disease rehabilitation and disease monitoring. A thorough understanding of peptic ulcer and comprehensive treatment are of great significance for the rehabilitation of patients and the prevention of recurrence.

Conflicts of Interest

The authors declares that there is no conflict of interest regarding the publication of this article.

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