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Rational Therapy of Hyperacid Gastritis in Pregnant Women

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ABSTRACT

Objective: *The objective of this study is to investigate the causes, diagnostic methods, and treatment strategies for gastritis with high acidity, focusing on its clinical manifestation, diagnosis, and management.* ***Methods:*** *This study uses clinical and instrumental methods for diagnosing gastritis with high acidity, including FEGDS with a pH meter of gastric juice, biopsy of the mucosa, and Helicobacter pylori infection testing. Various treatment approaches, such as dietary modifications, antacids, proton pump inhibitors, gastroprotectors, and antibacterial therapy, are also explored.* ***Results:*** *The results highlight the effectiveness of combining diet modifications, antacids, proton pump inhibitors, and gastroprotectors in managing symptoms of gastritis with high acidity. Additionally, the study emphasizes the importance of detecting and treating Helicobacter pylori infection to prevent further complications.* ***Novelty:*** *This study presents a comprehensive approach to the diagnosis and treatment of gastritis with high acidity, integrating clinical findings with effective management techniques, including the role of sanatorium-resort treatment and physiotherapy during remission periods.*

INTRODUCTION

High-acid gastritis is an inflammatory process that occurs in the stomach under the influence of H. pylori infection. Triggers that lead to acute hyperacid gastritis or exacerbation of chronic gastritis can be dietary errors, stress, or taking certain medications. High-acid gastritis is most often found in young people, often in children. This is due to changes in food culture - more and more people eat on the go, fast food, eat irregularly, which leads to serious damage to the stomach.

Long-term chronic gastritis with increased acidity can lead to serious complications, in particular, a stomach or duodenal ulcer. A big problem that can worsen the situation with gastritis is self-medication with uncontrolled use of drugs and folk remedies with antacid properties. Taking these drugs without a prescription and without supervision from a gastroenterologist can lead to serious disorders of gastric secretion, which ultimately leads to atrophy of the gastric glands and mucous membrane, leading to irreversible consequences.

Chronic gastritis is the most common disease in modern gastroenterology - it affects at least 50% of the population. It is known that histological signs of inflammation of the mucous membrane are found in half of subjects who have never complained of dyspeptic disorders, and in those who complain of dyspepsia, such changes are found in 45% of patients.

RESEARCH METHOD

To date, it has been proven that the main cause of the development of gastritis with high acidity is infection of the mucous membrane with Helicobacter. There is a direct relationship between the number of bacteria and the severity of gastritis. Helicobacter pylori infection affects only the cells of the gastric epithelium - this is confirmed by numerous studies, where the bacterium is found in the duodenum only in areas where the epithelium has metaplasticized into the gastric epithelium.

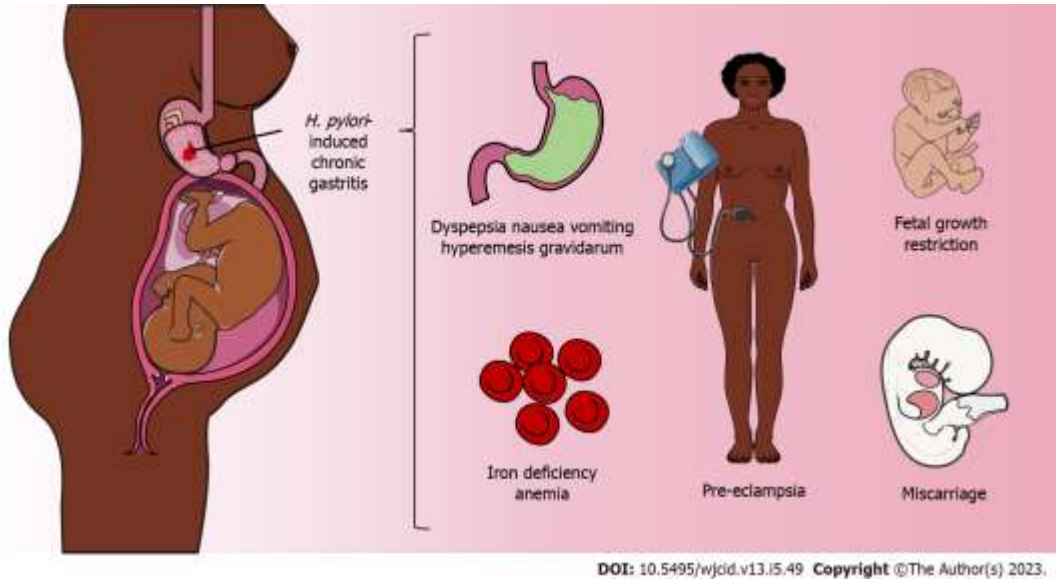

Figure 1. Helicobacter pylori infection causes gastritis with high acidity.

These bacteria have a special structure and a number of protective mechanisms that allow them to survive and multiply in the aggressive environment of the stomach. They can form an alkaline cocoon around themselves and penetrate deep into the mucous membrane, destroying the protective barriers that prevent the stomach cells and gastric juice from affecting their own mucous membrane. Under the influence of ammonia produced by microorganisms, gastrin secretion increases and somatostatin levels decrease - all this leads to increased secretion of hydrochloric acid and increased acidity of gastric juice. Also, multiplying bacteria provoke the release of anti-inflammatory prostaglandins and the inflammatory process in the mucous membrane.

Errors in nutrition provoke the development of Helicobacter pylori infection: on the go, eating in a hurry, dry food, frequent consumption of very cold or hot foods, fried and pickled. Most often, this type of gastritis occurs in people who abuse alcohol, smoking and strong coffee. The course of infection is also aggravated by exposure to radiation, taking certain medications and allergies to certain foods. Exacerbation of gastritis often occurs against the background of severe stress.

Figure 2. Poor eating habits and stress worsen Helicobacter pylori infection.

There are a number of internal factors that contribute to the development of hyperacid gastritis: severe chronic infections, metabolic diseases (diabetes mellitus, thyroid diseases, gout, etc.), oxygen starvation. Duodenal reflux (return of the contents of the small intestine through the pylorus into the stomach) is of significant pathogenetic importance - the entry of alkaline intestinal contents into the stomach, and especially bile, causes additional damage to the gastric mucosa and reduces its resistance to the effects of hydrochloric acid. Often, inflammation in the stomach develops against the background of other serious diseases due to the reflex effect.

Figure 3. Treat heartburn.

RESULTS AND DISCUSSION

Pathogenesis

Normally, the gastric mucosa has a strong protective system that protects it from the aggressive effects of the gastric environment. However, under the influence of certain factors, the protective barrier can weaken, creating favorable conditions for the inflammatory process. These factors include: constant physical and mental fatigue, various occupational hazards, hereditary characteristics of the body, weakening of the body against the background of severe concomitant diseases.

Symptoms of hyperacid gastritis

Exacerbation of chronic gastritis usually occurs in the autumn-spring period. It is expressed in the form of pain in the epigastric region, most often after eating. The pain is dull, aching and occurs due to stretching of the damaged mucosa with food masses. The pain is often accompanied by a feeling of heaviness and burning in the upper abdomen, which passes after vomiting. The pain is characteristic of night and on an empty stomach - when there is no food in the stomach, hydrochloric acid has a very aggressive effect on its mucous membrane. The patient is worried about nausea, heartburn (return of the acidic contents of the stomach into the esophagus), belching or regurgitation of acid (return of air and stomach contents into the oral cavity). Sometimes vomiting develops after eating, the vomit contains mucus and bile. Vomiting can relieve pain. Digestion in the stomach also leads to disruption of the functioning of other gastrointestinal organs - diarrhea develops and constipation occurs less often.

General symptoms are also very typical for gastritis: very strong weakness with episodes of excessive sweating, dizziness. Appetite decreases, the stomach periodically swells (flatulence) and grumbles. Salivation increases, the tongue is coated, teeth marks remain, and an unpleasant odor from the mouth appears. Changes in the cardiovascular system may be observed: pain in the heart area, palpitations and lability of blood pressure - such symptoms are caused by reflex effects.

Complexities

With severe damage to the middle third of the stomach and high acidity, signs of pernicious, folate and iron deficiency anemia are observed. With prolonged untreated hyperacid gastritis, erosions form on the mucous membrane, which then turn into ulcers. Long-term damage to the mucous membrane can lead to its atrophy and the development of atrophic gastritis, and subsequently to stomach cancer.

Diagnostics

Correct diagnosis of gastritis with increased acidity of gastric juice requires a number of clinical, functional and instrumental examinations. Changes in clinical tests are not typical for gastritis - an increase in inflammatory elements may be noted. With simultaneous damage to other organs, corresponding changes appear in the biochemical blood test. In the presence of erosion in the stomach and bleeding from them, occult blood is detected in the stool by a special analysis. To search for H. pylori, research is required: urease breath test , ELISA and PCR analysis to detect antibodies and DNA of the

microorganism, respectively. Also, a large number of bacteria can be detected during endoscopic biopsy of the gastric mucosa and histological examination.

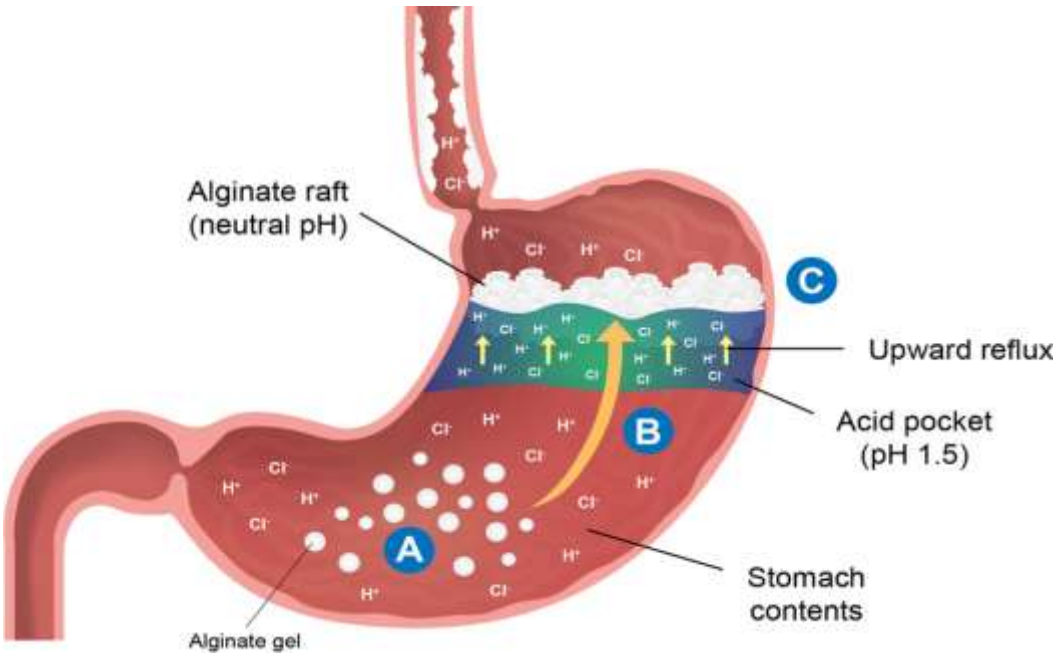

Figure 4. Gastroscopy and biopsy help diagnose gastritis and Helicobacter infection.

If gastritis is suspected, a gastroscopy is mandatory, or even better, FEGDS - a special device with a video camera is inserted into the stomach, which allows you to examine the esophagus, stomach and duodenum, identify the inflammatory process, erosion and ulcers.. During the study, it is necessary to take tissue for biopsy from several places. pH-metry is also performed - measuring the acidity of gastric juice, if it is less than 1.5, they talk about hyperacid gastritis. Tissue sections obtained during the biopsy are examined by histologists - signs of inflammation are detected and a large number of Helicobacter bacteria can be detected.

The pressure in the stomach cavity is measured, electrogastroenterography is performed - they help to identify duodenogastric reflux, which also aggravates the course of the disease. As auxiliary diagnostic methods, ultrasound of the abdominal organs, CT or MSCT can be performed, but for gastritis they only allow to identify concomitant damage to other organs;

Treatment of hyperacid gastritis

Treatment is carried out by a psychiatric enterologist. During exacerbations of the disease, hospitalization is indicated. The first condition for reducing symptoms is adherence to a diet, giving up alcohol, smoking and coffee. Diet table No. 1 is prescribed: food should be thermally, chemically and mechanically soft until the symptoms of the disease are eliminated. After the condition improves, a strict diet is followed - food is steamed and consumed frequently, in small portions. Fried, smoked, extractives, carbonated drinks and alcohol are excluded. Long breaks between meals, eating on the go and dry food are not allowed.

Conservative therapy for gastritis with increased acidity of gastric juice includes a number of medications. Proton pump inhibitors (reduce the production of hydrochloric acid), antacids (neutralize acid), gastroprotectors (create a protective barrier on the surface of the mucous membrane), antispasmodics and drugs that improve the motility of the gastrointestinal tract are prescribed. An important component of therapy is antibacterial therapy aimed at eradicating Helicobacter. As a rule, anti-Helicobacter therapy for hyperacid gastritis should consist of three or four components.

Physiotherapy treatment allows you to enhance the effect of drugs or deliver them directly to the stomach. Electrophoresis with antispasmodics eliminates pain and improves gastric motility. This is also facilitated by applying heating pads and heat applications to the stomach area. Electrotherapy and magnetic therapy not only reduce pain, but also accelerate the healing of the mucous membrane. Sanatorium-resort treatment is carried out in the period between exacerbations, including treatment with mineral waters (hydrotherapy).

Prognosis and prevention

The prognosis for timely and complete treatment of gastritis is favorable. If therapeutic measures are not taken, the patient continues to smoke and drink alcohol, does not follow a diet - severe complications may occur, the disease will progress to gastric and duodenal ulcers. Prevention of gastritis with high acidity involves normalizing the daily routine and nutrition. You need to eat healthy, eat at least 3-5 times a day.

It is recommended not to drink strong coffee, carbonated drinks, alcohol and smoke frequently. Nutrition should be balanced and contain all the necessary trace elements and vitamins. There is no need to eat dry food, enough time should be given to eat - only in this case the risk of gastritis can be minimized. In addition, you should strictly follow hygiene measures designed to protect against Helicobacter pylori infection, you should always wash your hands before eating; All medications should be taken only as prescribed by a doctor and in accordance with the instructions for the drug.

In addition to dyspeptic symptoms, it manifests itself as glossitis and gingivitis. The tongue is bright red, varnished; The gums are inflamed and loose. Achilles diarrhea is associated with a significant decrease in the functional activity of the gastric glands and pancreas, as a result of which the processes of putrefaction and fermentation in the intestines are activated. Gastritis with low acidity.

When palpating the abdomen, pain is detected in the epigastric region, there are no signs of peritoneal irritation, but with acute hemorrhagic gastritis, guarding (tension) of the abdominal muscles may occur. Symptoms of acute or chronic gastric bleeding characteristic of hemorrhagic gastritis. If the acute process more.

CONCLUSION

Fundamental Finding : The study highlights that high-acid gastritis is primarily caused by H. pylori infection, with contributing factors such as dietary habits, stress, and

certain medications. The bacteria's ability to survive in the stomach's acidic environment leads to mucosal inflammation and increased gastric acidity, which can ultimately cause more severe complications like ulcers and stomach cancer. **Implication :** The findings suggest that early detection and management, including dietary adjustments and appropriate medication, are essential for preventing long-term damage. Public awareness about the dangers of self-medication and lifestyle choices can play a key role in reducing the incidence of hyperacid gastritis and related complications. **Limitation :** The study primarily focused on the pathogenic aspects and common diagnostic methods, without fully addressing the long-term efficacy of current treatments. The limited scope of patient demographics may also affect the generalizability of the results. **Future Research :** Future studies should focus on exploring alternative treatments and the impact of lifestyle changes on the management of high-acid gastritis. Investigating the relationship between gastritis and other gastrointestinal diseases may provide deeper insights into better prevention and treatment strategies.

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