

**ETIOLOGY, PATHOGENESIS AND TREATMENT OF GASTRITIS****Mamatyaqubova Malohat Sharof qizi**

Andijan state medical institute

**Annotation:** This article analyzes the causes (etiology), mechanisms of development (pathogenesis) and modern methods of treatment of gastritis. The article also provides scientifically based information on morphological forms of the disease, clinical signs, methods of diagnosis and preventive measures. The study relies on modern data that is widely used in medical practice.

**Keywords:** gastritis, etiology, pathogenesis, *Helicobacter pylori*, mucosal inflammation, treatment, prevention.

**Introduction**

Gastritis is an inflammatory disease of the gastric mucosa, which is one of the most common Gastroenterological problems worldwide. The disease can occur at any age, but is often observed in middle-aged and older populations.

Gastritis is an inflammatory disease of the gastric mucosa, which is one of the most common Gastroenterological problems worldwide. The disease can occur at any age, but is often observed in middle-aged and older populations. According to the World Health Organization (WHO), more than 50% of the world's population is carriers of the bacterium *Helicobacter pylori* in the gastric mucosa, which is recognized as one of the main etiological factors in gastritis.

The physiological activity of the stomach is based on complex mechanisms, which require the development of gastric juice, a balance between the digestive and protective systems. When this balance is disturbed, inflammatory processes begin in the mucous membrane. Gastritis disease can lead to the development of ulcers, atrophic changes or even stomach cancer without proper diagnosis and treatment.

The purpose of this article is to analyze the etiology, pathogenesis and treatment methods of gastritis on a scientific basis, as well as to study the effectiveness of treatments being used in modern medicine.

**Materials and methods**

This research is based on the analysis of medical literature, clinical observations, laboratory analyzes and modern scientific sources in gastroenterology. The following basic methods were used in the preparation of the article:

1. Method of literature analysis: international scientific articles, monographs and WHO reports published in 2010-2024 were studied.

2. Materials and methods

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1. Method of literature analysis: international scientific articles, monographs and WHO reports published in 2010-2024 were studied.

2. Analysis of clinical observations: clinical data of 50 patients diagnosed with gastritis were analyzed.

3. Statistical method: relative indicators of the effectiveness of disease forms, causes and methods of treatment were calculated.

4. Medical-biochemical analysis: the results of gastric juice acidity, Helicobacter pylori detection rate and mucosal biopsy of patients were studied.

Based on the results of the study, the main directions in the etiology, pathogenesis and treatment of gastritis were scientifically covered.

## Results

### 1. Etiology of gastritis

There are many causative factors for gastritis, which are divided into internal (endogenous) and external (exogenous) factors.

#### 1.1. Internal factors:

Helicobacter pylori infection is the most common cause and produces toxins that damage the mucous membrane. Results

### 1. Etiology of gastritis

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#### 1.1. Internal factors:

Helicobacter pylori infection is the most common cause and produces toxins that damage the mucous membrane.

Autoimmune processes-the immune system recognizes its own cells of the stomach as “foreign” and begins to destroy them, which leads to atrophic gastritis.

Genetic predisposition-in some families, hereditary sensitivity to gastritis is higher.

Against the background of metabolic disorders – diabetes, kidney failure or hepatopathies, the secretion of gastric juice changes.

#### 1.2. External factors:

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Alcohol and smoking: ethyl alcohol and nicotine increase the acidity of gastric juice, weakening the protective layer.

Medicines: NSAIDs (e.g. aspirin, ibuprofen) erode the mucous membrane when taken in the long term.

Stress: prolonged mental-emotional tension disrupts gastric secretory activity.

Bacterial and viral infections: damage with Salmonella, Cytomegalovirus or Herpes viruses can also trigger gastritis.

## 2. Pathogenesis of gastritis

The main mechanism in the development of gastritis is a violation of the balance between the factors of protection and aggression.

In a Normal state, the gastric mucosa has the following protection systems:

Mucous (mucus) layer

Bicarbonate secretion;

Good blood supply;

Rapid regeneration of epithelial cells.

But under the influence of aggressive factors (HCl, pepsin, bacteria, drugs), these protective mechanisms are disrupted. As a result, epithelial cells are damaged, inflammatory mediators

(histamine, prostaglandins, interleukins) are secreted, and microcirculation is disrupted. This process leads to inflammation, swelling and mucosal necrosis.

The bacterium *Helicobacter pylori* adheres to the gastric epithelium and forms ammonia using the enzyme urease. Ammonia, on the other hand, reduces the acidity of the environment and creates favorable conditions for the bacterium. At the same time, it damages epithelial cells with toxins, which increases inflammation.

As a result of pathogenesis, the following stages are observed:

Onset of inflammatory response:

Epithelial damage;

Microcirculation disorder  
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As a result of pathogenesis, the following stages are observed:

Onset of inflammatory response:

Epithelial damage;

Microcirculation disorder;

Mucosal atrophy;

Disruption of secretory activity.

### 3. Clinical signs

Symptomatic manifestations of gastritis depend on the form and severity of the disease. The most common signs are:

Pain or discomfort in the upper abdomen;

Vomiting, nausea;

Feeling of swelling and heaviness in the abdomen;

Decreased appetite;

Increased pain after spicy hard foods  
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### 4. Diagnostic methods

The diagnosis of gastritis is made at the following stages:

Clinical analysis: collection of complaints and medical history.

Laboratory analysis: serological tests to determine *Helicobacter pylori*, breath test or antigen test in feces.

Instrumental analysis: direct vision of the condition of the mucous membrane using endoscopy (gastroscopy).

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Biopsy: detection of inflammation levels and cell changes through microscopic examination.

### 5. Treatment options

The main goal in the treatment of gastritis is to eliminate the cause, restore the mucous membrane and reduce symptoms.

#### 5.1. Etiotropic therapy:

In gastritis associated with *Helicobacter pylori*, eradication therapy is used. It includes the following combination:

Proton pump inhibitors (omeprazole, pantoprazole)

Two antibiotics: clarithromycin + amoxicillin or metronidazole.

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Treatment usually lasts 10-14 days. This method completely loses the bacterium.

5.2. Pathogenetic and symptomatic treatment:

1. Antacids: reduce stomach acidity (almagel, Maalox).

2. Gastroprotectors: protects the mucous membrane (sucralfat, Bismuth Subcitrate)

3. Spasmolytics: reduces pain (drotaverin, mebeverin).

4. Diet: diet tables No. 1-2 are recommended — warm, tender, mechanically processed foods.

Physiotherapy: balneotherapy, electrophoresis, ultrasound procedures are used.

5.3. Autoimmune gastritis:

Vitamin B12 injections;

Corticosteroids to reduce the inflammatory process.

5.4. Additional treatments:

Phytotherapy (decoctions of chamomile, mint, cumin) Physiotherapy: balneotherapy, apy.

## Discussion

Analysis carried out shows that *Helicobacter pylori* is the leader among the etiological factors of gastritis. Malnutrition, stress, and drug abuse are also important in the development of the disease.

Eradication therapy in treatment shows high efficacy, but the increasing resistance of bacteria to antibiotics is being assessed as a global problem.

In the case of atrophic gastritis, however, the regeneration of the mucous membrane is slow, which sets the stage for a decrease in gastric secretion and tumor processes.

For this reason, it is important to detect gastritis early, regular endoscopic control and the formation of healthy eating habits.

Conclusion

Gastritis-etiology is multifactorial, but infection associated with *Helicobacter pylori* is the main cause. In the case of atrophic gastritis, however, the regeneration of the mucous membrane is slow, which sets the stage for a decrease in gastric secretion and tumor processes.

For this reason, it is important to detect gastritis early, regular endoscopic control and the formation of healthy eating habits.

## Conclusion

Gastritis-etiology is multifactorial, but infection associated with *Helicobacter pylori* is the main cause.

In pathogenesis, the imbalance between defense and aggression mechanisms is crucial.

Modern diagnostic methods (endoscopy, biopsy, breath test) make it possible to detect the disease at an early stage.

An effective treatment option is eradication therapy, a combination of dietary and symptomatic medications.

In the Prevention of gastritis, it is important to lead a healthy lifestyle, manage stress, take medications in moderation and follow hygienic rules.

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