How is gastroesophageal reflux disease classified?

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ABSTRACT
Gastroesophageal reflux disease (GERD) is one of the most commonly diagnosed conditions in the daily practice of gastroenterologists. Due to variations in symptoms and clinical findings, differences in the severity of the disease in each patient and the fact that diverse methods are used for making a diagnosis makes a single and standard classification of this disease impossible. Here a step-approach suitable for GERD classification is summarized.

Keywords: Gastroesophageal reflux disease, classification, non-erosive reflux disease, erosive reflux disease

The diagnosis of GERD is made based on the symptoms. The classification must be made according to the symptoms found in the initial examination. Heartburn and regurgitation are accepted as typical symptoms, while atypical symptoms can be divided into two groups: established associations and proposed associations (Figure 1). Advanced evaluation should be performed in a patient with atypical or alarm symptoms (weight loss, anemia, dysphagia, vomiting, etc.) in the initial examination.

GERD: CLASSIFICATION ACCORDING TO THE SEVERITY OF SYMPTOMS
The severity of GERD should be evaluated according to the impact of current symptoms on daily life activities. GERD can be classified as a mild or moderate disease based on symptom severity, symptom frequency, intensity, and duration.
- Mild disease: Less than three in a week, minimal effect on daily activities, short-lasting.
- Moderate disease: More than three in a week, excessive effect on daily activities, long-lasting.

GERD: Endoscopic Classification
During endoscopic examination, patients without mucosal damage are identified to have NERD and those with mucosal damage are identified to have erosive reflux disease in the presence of reflux symptoms. The complications of GERD include Barrett’s esophagus, stricture, hemorrhage, and adenocarcinoma (Figure 2).

Definitions in GERD
Non-erosive reflux disease is identified in patients with normal upper gastrointestinal endoscopy and esophageal manometry results and heartburn and/or regurgitation in case of increased acid exposure during pH (+/- impedance) monitoring for 24 hours. A hypersensitive esophagus is identified in the presence of a relationship between normal acid exposure and positive reflux symptoms, whereas functional heartburn is identified in the absence of any relationship between pathological acid reflux and reflux symptoms (Figure 3).

RECOMMENDATIONS
- Classification based on symptoms should be done for gastroesophageal reflux disease (GERD). Typical-atypical symptoms and alarm symptoms (weight loss, anemia, etc.) should be evaluated (Level of evidence: 5).
- GERD can be classified as a mild or moderate disease according to the severity of symptoms (Level of evidence: 5).
- It should be categorized as an erosive and a non-erosive reflux disease (NERD) and complications in endoscopic classification (Level of evidence: 5).
- The complications of GERD are stricture, bleeding, Barrett’s esophagus, and adenocarcinoma (Level of evidence: 5).

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Figure 1. GERD: Symptomatic classification

GERD

Typical

1. Heartburn
2. Reurgitation

Atypical

Established Associations

1. Cough
2. Laryngitis
3. Asthma
4. Dental erosions
5. Chest pain

Proposed Associations

1. Sinusitis
2. Pulmonary fibrosis
3. Pharyngitis
4. Recurrent otitis media

Figure 2. GERD: Endoscopic classification

GERD

Non-erosive reflux disease

Erosive reflux disease

Complications

1. Barrett esophagus
2. Stricture
3. Hemorrhage
4. Adenocarcinoma

Heartburn +/- regurgitation

Endoscopy

Normal mucosal view

Esophagitis

Barrett esophagus

Esophageal monometry

Primary motility disorder

Normal motility

24 hours pH(+/impedance) monitorization

Increased acid exposure time

Normal acid exposure time
Positive reflux-symptom association

Normal acid exposure time
Negative reflux-symptom relationship

NERD

Hypersensitive esophagus

Functional heartburn

Figure 3. Definitions in NERD