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Dyspepsia

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ABSTRACT

Dyspepsia, commonly referred to as indigestion, encompasses a constellation of upper abdominal symptoms, causing significant discomfort and affecting up to 20% of the population. This review provides a comprehensive overview of dyspepsia, discussing its definition, classifications, diverse etiologies, diagnostic approaches, and therapeutic options. We explore both functional and organic causes, including peptic ulcers, gastroesophageal reflux disease (GERD), motility disorders, and psychological factors. The evolving understanding of the gut-brain axis is highlighted, emphasizing its potential role in dyspepsia management.

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Introduction

Dyspepsia, defined as persistent or recurrent upper abdominal discomfort or pain, significantly impacts quality of life and healthcare utilization. Its nonspecific nature presents diagnostic challenges, requiring careful evaluation to differentiate between organic and functional causes (1-3).

Classifications

Dyspepsia is broadly categorized into organic and functional forms. Organic dyspepsia arises from identifiable structural or biochemical abnormalities, such as peptic ulcers, GERD, or gallbladder disease. Functional dyspepsia (FD), the more common form, lacks identifiable structural or biochemical abnormalities, potentially involving alterations in gastric motility, visceral hypersensitivity, and psychologic factors (4-7).

Etiologies

A diverse range of factors contribute to dyspepsia development (6-11).

Organic causes

Peptic ulcers: Erosions or sores in the inner lining of the stomach or duodenum due to Helicobacter pylori infection or prolonged use of nonsteroidal anti-inflammatory drugs (NSAIDs).

GERD: Backflow of stomach acid into the esophagus.

Motility disorders: Delayed gastric emptying (gastroparesis) or rapid gastric emptying (tachygastria)

Pancreatitis: Inflammation of the pancreas.

Biliary tract disease: Gallstones or inflammation of the gallbladder or bile ducts.

Functional dyspepsia

Visceral hypersensitivity: Increased sensitivity of visceral nerves to normal physiological stimuli, leading to misinterpretation of sensations as discomfort or pain.

Motility disturbances: Altered gastric accommodation or contractions affecting food processing and passage.

Psychological factors: Stress, anxiety, and depression can exacerbate dyspepsia symptoms.

Diagnosis

Accurate diagnosis involves a thorough clinical evaluation, including detailed history taking, physical examination, and appropriate investigations. Endoscopy and upper gastrointestinal radiography may be required to rule out organic causes (10-14).

Treatment

Management strategies vary depending on the underlying cause. Treatment of the underlying condition, such as eradication of H. pylori for peptic ulcers or acid suppression for GERD. Lifestyle modifications, including dietary adjustments, stress management, and smoking cessation. Prokinetic medications to improve gastric motility. Antidepressants for individuals with significant psychosocial factors (1-3, 11-13).

Emerging Concepts

The gut-brain axis, a bidirectional communication pathway between the digestive system and central nervous system, is increasingly recognized as a potential contributor to both organic and functional dyspepsia. Understanding this intricate connection may offer novel therapeutic targets in the future (3-5).

Conclusion

Dyspepsia is a complex and heterogeneous disorder with diverse etiologies. Accurate diagnosis and individualized treatment strategies are crucial for effective management. The growing understanding of the gut-brain axis and its potential role in dyspepsia pathogenesis holds promise for future advancements in diagnosis and therapy.

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