



CLINICAL PHARMACOLOGICAL APPROACH TO THE SELECTION AND USE OF DRUGS USED IN GASTROINTESTINAL DISEASES

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Abstract:

Currently, in gastroenterology, much attention is paid to disorders of the motor function of the digestive tract. This is due to the fact that, as studies of recent years have shown, disorders of the gastrointestinal tract motility can act as a leading pathogenetic factor contributing to the development of many common gastroenterological diseases, such as functional dyspepsia, gastroesophageal reflux disease (GERD), duodenogastric reflux. All of them significantly worsen the quality of life of patients, limiting their work and social activities, and at the same time can cause serious complications, such as Barrett's esophagus, esophageal adenocarcinoma, stomach cancer and others.

Keywords: gastroenterology, method, treatment, diagnosis.

INTRODUCTION

Functional dyspepsia according to Rome criteria III (2006) is defined as a complex of clinical symptoms: pain or burning sensation in the epigastric region, feeling of early satiety, fullness in the epigastric region, which arose at least 6 months before the diagnosis and have been observed for the last 3 months. The main mechanisms of functional dyspepsia development are related to gastric motor disorders, when physiological antroduodenal coordination is impaired. Impaired gastric motor function causes various dyspeptic complaints. Disorders of gastric accommodation cause such a symptom as early satiety. Weakening of the antral motility (gastroparesis) and impaired antrocardial and antroduodenal coordination cause a feeling of heaviness, fullness in the epigastrium after eating, heartburn, belching. A feeling of bitterness in the mouth is associated with duodenogastric and gastroesophageal reflux. The consequences of altered motility and peristalsis of the stomach (gastric dysrhythmia, tachygastria, antral defibrillation, bradygastria) are nausea and vomiting.

MATERIALS AND METHODS

A fairly common functional gastrointestinal disease is gastroesophageal reflux disease. According to the WHO classification, GERD is a chronic recurrent disease caused by a violation of the motor-evacuation function of the gastroesophageal zone and characterized by spontaneous or regularly recurring throwing of gastric or duodenal contents into the esophagus, which leads to damage to the distal esophagus with the development of erosive ulcerative, catarrhal and/or functional disorders.

RESULTS AND DISCUSSION

From a pathophysiological point of view, the key figure of GERD is the lower esophageal sphincter. As is known, the intraventricular pressure is normally higher than the intraesophageal pressure. Therefore, in order to throw the gastric contents into the esophagus, it is necessary to overcome the antireflux barrier. The lower esophageal sphincter provides 90% of the antireflux protection. This circular muscle should almost always be in a closed state, reflexively opening only in two situations - when the food bolus passes into the stomach and when excess air leaves the stomach. The main pathogenetic mechanism leading to gastroesophageal reflux is episodic spontaneous relaxation of the lower esophageal sphincter. Characteristic symptoms of GERD - heartburn, belching, regurgitation, painful and difficult passage of food - are excruciating for the patient. Heartburn is the most common symptom, occurring in 83% of patients, and occurs as a result of prolonged contact of acidic contents with the esophageal mucosa. This symptom is characterized by its intensification with an error in diet, physical exertion, bending and in a horizontal position. Belching, as one of the leading symptoms of GERD, is quite common and is found in 52% of patients. It intensifies after eating, drinking carbonated drinks. Dysphagia is observed in 19% of patients with GERD. A characteristic feature of this symptom is its intermittent nature. The basis of such dysphagia is hypermotor dyskinesia of the esophagus, which disrupts its peristaltic function. One of the most common symptoms is also pain in the epigastric region, which occurs in the projection of the xiphoid process shortly after eating and intensifies with bending movements.



Duodenogastric reflux

Duodenogastric reflux is most often caused by the failure of the sphincter apparatus, as a result of which the duodenal contents can freely reach the stomach and esophagus through the pyloric and lower esophageal sphincter, or by the presence of antroduodenal dysmotility - a violation of coordination between the antral, pyloric sections of the stomach and the duodenum, and also develops when the natural antireflux barrier is eliminated (after partial gastrectomy, vagotomy, cholecystectomy).

The composition of the refluxate in duodenogastric reflux includes bile acids, lysolecithin and trypsin. These components, getting on the mucous membranes of the stomach and esophagus during reflux, cause dystrophic and necrobiotic changes in the surface epithelium. Gradually, atrophic changes develop and worsen, proliferative processes and dysplasia of varying degrees of severity progress, which increases the risk of developing stomach cancer by tens of times.

Treatment issues: focus on prokinetics

Since motor function disorders play an important role in the pathogenesis of functional gastrointestinal diseases, the use of prokinetics is pathogenetically justified. It is this group of drugs that has an antireflux effect, normalizes the motor function of the gastrointestinal tract, increases the tone of the lower esophageal sphincter, enhances gastric peristalsis, accelerates the evacuation of food from the stomach, has a positive effect on esophageal clearance, and also successfully copes with symptoms such as nausea, vomiting, heartburn, belching, discomfort in the epigastric region, constipation. However, in everyday practice, with functional gastrointestinal pathology, doctors and often patients themselves sometimes prescribe enzyme preparations, which is wrong, since they do not affect the cause of dyspepsia - impaired gastric motility. Their use is advisable in cases of chronic pancreatitis with pain syndrome, large cysts and tumors of the pancreas, cystic fibrosis, i.e. in those clinical situations where there is exocrine pancreatic insufficiency, usually accompanied by diarrhea and steatorrhea. They provide replacement therapy in case of a deficiency of the body's own enzymes and are capable of breaking down food only in the intestine, since they are covered with an acid-resistant shell.

Considering that domperidone increases the tone of the lower esophageal sphincter and normalizes the evacuation of food from the stomach, this drug can also be used in the treatment of gastroesophageal reflux disease. In a study by Masci et al., it was found that prescribing domperidone at 20 mg 3 times a day for 6 weeks in the treatment of such patients is as effective

as using ranitidine at a dose of 150 mg / day. Domperidone has also proven itself in the treatment of patients with chronic gastritis. Japanese authors (Tatsuta et al.) found a clear relationship between the severity of dyspeptic disorders and the severity of evacuation disorders from the stomach. Domperidone, normalizing the evacuation function of the stomach, helps to eliminate such complaints as a feeling of fullness in the epigastric region, nausea, and loss of appetite. At the same time, the effectiveness of domperidone in patients with chronic gastritis was significantly higher than metoclopramide.

Domperidone is widely used in the treatment of secondary gastroparesis in patients with diabetes mellitus, systemic scleroderma, after gastric surgery using vagotomy. Good results have also been obtained using the drug as a symptomatic antiemetic in patients receiving chemotherapy.

CONCLUSION

Thus, functional gastrointestinal diseases are based on impaired motor function, and the first-line drugs that can solve this problem are prokinetics. Domperidone is a prokinetic with proven efficacy in numerous studies and a well-studied safety profile. Due to the complex normalization of gastric motility, it reliably relieves symptoms such as a feeling of fullness in the epigastrium, early satiety, bloating, nausea, vomiting, a feeling of discomfort in the epigastric region, associated and not associated with food intake.

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