

Assessment of Clinical and Functional Characteristics of Gastroesophageal Reflux Disease

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ANNOTATION

Studying the frequency of the symptoms of gastroesophageal reflux disease. The data on clinical and endoscopic signs of gastroesophageal reflux disease were studied. Among the patients surveyed, the clinical symptoms were 72% heartburn, 55% belching, and 54% bloating. The erosive form of stage A1 was 31 (57.4%), and the ulcerative form of damage to the esophageal mucosa B1 in 23 (42.6%) cases.

KEYWORDS: *Gastroesophageal reflux disease, clinic, endoscopy, heartburn, belching, bloating, erosion, ulcer.*

The incidence of GERD is currently on the rise. Studies conducted in Europe and North America have shown that 4-10% of the population experience GERD symptoms daily, 20-30% weekly, and 50% monthly, and the incidence is steadily increasing [2]. Clinical symptoms of GERD include heartburn, belching, regurgitation, incl. rumination, flatulence, and symptoms that cause anxiety, pain behind the sternum that occurs during the passage of food, which radiates to the interscapular region, neck, lower jaw, left side of the chest, and dysphagia, which occurs more often after eating when bending forward or at night, pain when eating, etc., or the presence of changes in the esophageal mucosa, detected during endoscopic examination of the stomach [3].

At present, GERD, due to its frequency and dangerous consequences, is recognized as the leading disease of the digestive system, which is based on primary disorders of the motility of the sphincter apparatus of the gastrointestinal tract. Concerning the prevalence of GERD, there are significant geographical differences, with prevalence in the Western Hemisphere and European countries markedly exceeding the East Asian region. Among the population of developed countries, it occurs from 25 to 40% of cases [2, 9].

Literature data confirms that the prevalence of GERD according to the results of primary fibro esophagogastroduodenoscopy (FEGDS) was 30%. If there are complaints during endoscopic examination of the esophagus, reflux esophagitis is detected in 30–35% of cases. The prevalence of GERD in the contingent of hospital patients was 30%, erosive esophagitis was detected in 13%, and non-erosive forms of GERD - in 17% [3]. These data coincide with the results of other authors who studied the frequency of erosive and non-erosive forms of GERD in outpatients who underwent primary endoscopic examination and questioning.

GERD among acid-dependent lesions of the gastrointestinal tract occupies the main place and is a

disease of the XXI century [1,4,6]. The recognition of GERD as a pathology of the upper gastrointestinal tract has become a shift in the development of various directions in the treatment of this pathology. Many of them are aimed at suppressing the aggressive action of reflux. Since the aggressive action of refluxate depends on the medium pH of the refluxate, this is a trigger in the development of the pathological process [5,6,7,11].

In the clinical picture, there are esophageal manifestations, which include heartburn, belching, regurgitation, odynophagia, pain in the chest and/or epigastric region, and extra esophageal. Analysis of an epidemiological study showed that the prevalence of GERD symptoms among the working-age population was up to 72% (3,4,8).

The purpose of the study: To study the clinical and functional characteristics of gastro esophageal reflux disease, depending on the lesion of the esophageal mucosa.

Material and methods. A cross-sectional examination was carried out among the population of the Bukhara region in the clinical base of a multidisciplinary medical center for persons aged 18 to 67 years using the questionnaire method proposed by us to identify symptoms of GERD in individuals and, with the informed consent of patients, fibro esophagogastroduodenoscopy (FEGDS with the Olympus device, Japan). 533 patients were examined, including men - 272 and women - 261. All patients were informed about the objectives of the study, and informed consent to participate in the study was obtained. The survey included an epidemiological analysis and a FEGDS study. Diagnosis of GERD in the subjects was based on the presence of complaints of heartburn, belching, regurgitation, bloating, rumbling, and chest pain, and based on the World Consensus definition of GERD in the population. According to the consent of the patients, FEGDS was performed by random selection with gastrointestinal complaints. In the examined patients, FEGDS was performed according to indications to identify morphological changes in the mucous membranes of the gastrointestinal tract. Out of 533 respondents, 273 (51.2%) patients agreed to an endoscopic examination, of which 141 (51.6%) were men and 132 (49.4%) were women.

Results and its discussion. Consequently, in the studied patients, the frequency of occurrence of GERD symptoms varies in different ways and an interrelated manner (Fig. 1). Among these symptoms, a significant proportion of the surveyed population experiences heartburn with varying frequency. This sign of GERD was observed in men and women with the same frequency, especially in the evening after eating, which increased in a horizontal position. Analysis of the data showed that out of 533 surveyed patients, heartburn bothered 383 (72%), which is from the total number of subjects, including 199 (51.9%) men and 184 (48.1%) women, among them overweight patients. (increased Kettle index) is 254 (66.3%). Moreover, daily heartburn was in men 37 (18.6%) once a week in 73 (36.7%), once a month bothered 89 (44.7%), and, accordingly, in women 32 (17.4%), 66 (35.8%) and 86 (46.7%) by study time.

Of the leading clinical symptoms, belching occurred in 294 (55%) patients, of which 151 (51.4%) were men and 143 (48.6%) were women. In 62 male patients, there was eructation with an admixture of food, and in women, 57 (19.4%) and the rest, respectively, 85 (28.9%) and 86 (29.2%) patients were disturbed by belching with air.

Regurgitation is experienced by 186 (35%) of the surveyed patients, of which 95 (51.1%) are men and 91 (48.9%) are women, which is associated with an increase in intra-abdominal pressure and a decrease in the tone of the lower esophageal sphincter, a violation of the motor-evacuation function of the stomach and duodenum.

One of the frequent clinical symptoms of GERD is bloating, which is 288 (54%) among the interviewed patients, of which the number of respondents is 145 (50.3%) men and 143 (49.7%) women, this is associated with impaired digestion, processes fermentation, decreased evacuation

function, tone, and peristaltic movements in the gastrointestinal tract, especially in people with increased body weight.

224 (42%) disturbed the environment of the examined persons, of which 117 (52.2%) were men and 107 (47.8%) women. The interviewed patients also revealed chest pain, which is 171 (32%) patients, among them 87 (50.9%) men and 84 (49.1%) women, respectively.

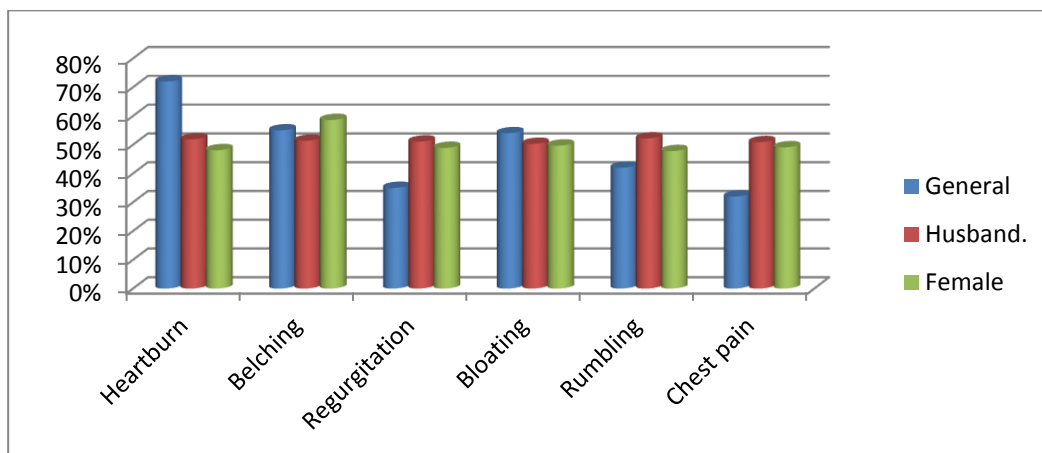


Figure 1. GERD symptom frequencies

The conducted FEGDS studies showed that the erosive form of GERD was 126 (23.6%) patients, of which 69 (54.8%) were men and 57 (45.2%) were women. Catarrhal changes in the mucous membrane of the esophagus were detected in 72 (13.5%) patients, including 35 (48.6%) men and 37 (51.4%) women, erosive lesions in 38 (30.2%) patients, among them 23 (60.5%) and 15 (39.5%), respectively, and similarly ulcerative lesions 16 (12.7%), of which 11 (68.8%) and 5 (31.2%) patients (Fig. 2.). Erosive and ulcerative lesions of the esophagus were observed in patients who had GERD symptoms for more than 5 years.

The severity of erosive lesions of the esophageal mucosa was determined according to the 1994 classification (Los Angeles, USA): stage A-1 (or more) - an area of damaged mucosa up to 5 mm in size, which does not capture the mucosa between the folds (i.e., located at the top folds); stage A1 is 31 (57.4%), of which 18 (58.1%) men and 13 (41.9%) women, and B1 stage 1 (or more) is an area of damaged mucosa larger than 5 mm, which is not captures the mucous membrane between the folds amounted to 23 (42.6%), of which 15 (65.2%) were men and 8 (34.8%) were women (Fig. 2).

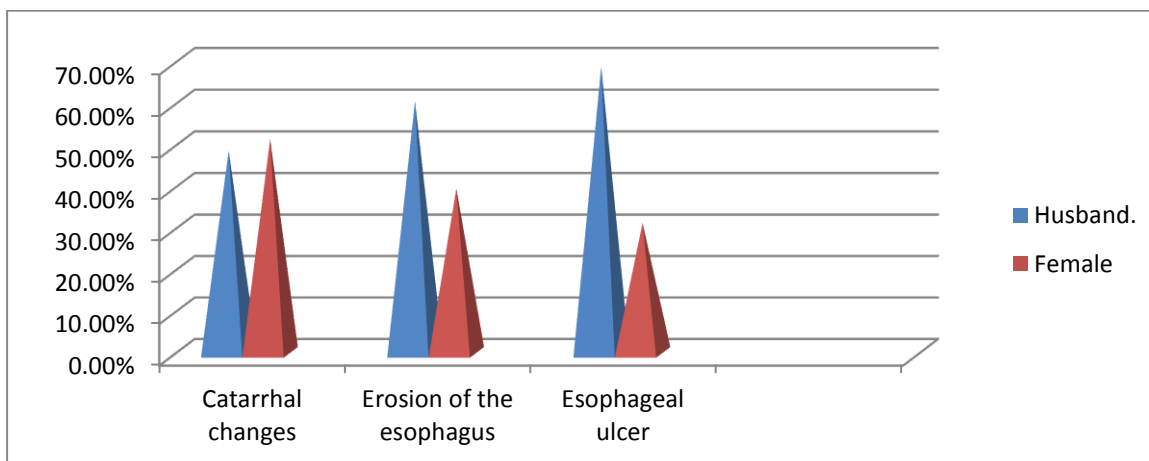


Fig.2. The frequency of occurrence of the erosive form of GERD.

When analyzing the data of the survey, it was revealed that 79.7% of patients took the main amount of food in the late evening hours, 8.4% abused alcohol and smoking, 39.2% abused the use of citrus and mint products, 68.2% abused the use of animal fat and fat, in 67.1%, especially men, after eating, took a horizontal position. As a result of these factors, intra-abdominal pressure increases, and the tone of the lower esophageal sphincter gradually decreases, gastric contents are ejected in the opposite direction in the upper gastrointestinal tract, which leads to the development of GERD symptoms. Given the presence of bad habits, the adoption of a horizontal position after eating, and the endoscopic picture, the incidence of an erosive form of GERD dominates in men.

Findings. Thus, in patients with gastro esophageal reflux disease, heartburn, belching, bloating, rumbling, erosive and ulcerative lesions of the mucous membranes of the esophagus are most common.

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