

**FEATURES OF THE ENDOSCOPIC PICTURE OF THE GASTRODUODENAL ZONE IN PATIENTS WITH CHD IN PREPARATION FOR PCI****\*Kodirov Sh. S., Daminova L. T., Rashidova A. S. and Zunnunov X. M.**

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**SUMMARY**

**Purpose:** in the article, the authors investigated the features of the endoscopic picture of the lesion of the gastrointestinal mucosa in patients with coronary heart disease in preparation for percutaneous coronary interventions (PCI). **Materials and Methods:** the study included 146 patients hospitalized with a diagnosis of coronary heart disease. **Results:** the analysis showed that the ulcer was most often observed in the antrum of the stomach (46,2% of cases) and less often in the cardiac part (5,9% of cases).

**KEYWORDS:** coronary heart disease, gastroduodenal area, esophagogastroduodenoscopy.

**Relevance.** CHD is one of the most common diseases that create important medical, social and economic problems.<sup>[1,2,9]</sup> At the same time, CHD is one of the most important causes of temporary and permanent disability of the population and mortality in the developed countries of the world.<sup>[2,3,11]</sup> The number of deaths from coronary heart disease in 2014 was 134,1 among men and 18,0 among women per 100 thousand of the population, and in 2015 it was 125,2 among men and 16,3 among women per 100 thousand of the population according to Rosstat.<sup>[4,8,12]</sup> In patients with coronary heart disease, there is an increase in the incidence of acute erosive and ulcerative lesions of the upper gastrointestinal tract (GI), caused not only by trophic tissue disorders, but also by a significant intake of various drugs for the treatment of coronary heart disease, causing an increase in acid-peptic factor and a decrease in mucus secretion, protecting the mucous membrane from these effects, in particular, the modern therapeutic tactics of using antiplatelet therapy, based on the vast experience in prescribing acetylsalicylic acid (ASA), oral indirect anticoagulants, thienopyridines and their combinations.<sup>[2,5,7,10]</sup> When taking standard doses of ASA (75-150 mg) or vitamin K antagonists, the risk of bleeding increases by 1,8 times, with the appointment of clopidogrel - by 1,1 times.<sup>[1,6,9]</sup> Double antiplatelet therapy is accompanied by higher rates of the relative risk of bleeding: the combination of ASA and dipyridamole is accompanied by an increase in the risk of bleeding by 2,3 times; ASA and anticoagulants of indirect action - 5,3 times; ASA and clopidogrel - 7,4 times.<sup>[3,4,12]</sup> To study the features of mucosal lesions of the upper GI tract in patients with coronary heart disease, the most informative diagnostic method is endoscopic, in particular esophagogastroduodenoscopy (EGD). EGD is

a probing method that allows you to examine the esophagus, stomach and duodenum using a flexible endoscope; at the same time, it is possible to determine the anatomical changes in these organs, their functional state, to obtain biopsy material to determine the morphology of the pathology, and, often, its etiology.

One of the objectives of the research was to determine the characteristics of ulcerative formations in the stomach and duodenum with the establishment of their characteristics in patients suffering from coronary heart disease.

**Purpose of the study.** To study the features of the endoscopic picture of mucosal lesions of the GI tract in patients with coronary heart disease in preparation for PCI.

**MATERIAL AND METHODS**

146 patients with coronary heart disease were examined, among them there were 12 (8,22%) patients with acute myocardial infarction, 68 (46,57%) patients with progressive strenuous angina, strenuous angina pectoris (functional class III -IV) - 66 (45,20%) people. The mean age of the patients was 56,3±2,4 years.

All patients with clinically diagnosed coronary heart disease, along with conventional clinical, laboratory and instrumental studies, underwent esophagogastroduodenoscopy - EGD (FUJINON 2500 and PENTAX5000, Japan), stool for occult blood. Patients with coronary heart disease received traditional therapy, including heparin (bolus, then infusion and subcutaneous injection), aspirin and clopidogrel (loading

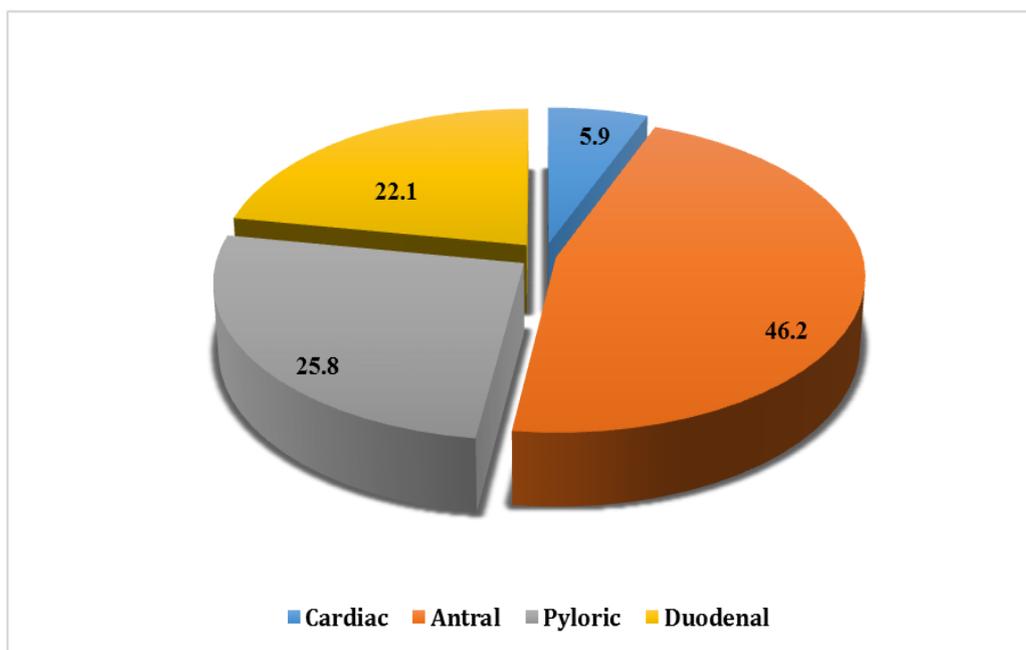
doses followed by maintenance doses). Statistical processing was carried out in the Excel-2017 program.

**RESEARCH RESULTS**

The standard technique for performing the EGD method did not differ from the known methods, however, the study of the internal state of the esophagus, stomach, and duodenum was visualized on a computer monitor, and the observed pattern was recorded by a special program and recorded in the device's memory. As a result, in a color format, it was possible to highlight the nature of ulcers, size, dynamics of the course, stages of scarring.

An assessment of the frequency of occurrence of the anatomical localization of ulcerative lesions is shown in Fig. 1, which shows that in the largest number of cases, ulcerative lesions were localized in the antrum of the stomach (46,2% of cases) and the least observed in the cardiac region (5,9% of cases). The frequency of occurrence of ulcerative lesions in the pyloric part of the stomach and in the duodenum was 1/4 and 1/5, respectively (Fig. 1).

The distribution of the occurrence of the anatomical localization of ulcerative lesions, depending on the complexity of the process and gender, is presented in Table 1.



**Fig. 1: The frequency of occurrence of localization of ulcerative lesions.**

Note: data is presented as a percentage.

The study of the incidence of ulcerative lesions complicated by bleeding revealed that their greatest number was observed in the antrum (46,2%), and in men 3 times more often than in women (14,8% vs. 5,1%; p

<0,001). Also, a significant amount of ulcerative lesions complicated by bleeding were detected from duodenal ulcers (23,2%), again more in men than in women (17,9% vs. 5,3%; p<0,001).

**Table 1: Detailed analysis of EGD localizations of ulcerative lesions.**

Localization of ulcerative lesions	Uncomplicated		Complicated	
	Male(87)	Women(34)	Male(48)	Women(9)
Cardia	5 (2,2%)	2 (0,8 %)* *	3 (1,3%)	4 (1,7%)* **
Antrum	44 (18,6%)	18(7,6 %)*	35 (14,8%)	12 (5,1%)*
Pylorus	32 (13,6%)	10(4,2 %)*	16 (6,7%)	3 (1,3%)*
Duodenum	24 (10,2%)	6 (2,5 %)*	17 (7,2%)	5 (2,2 %)*

Note: \*- p < 0,05, \*\*- p < 0,001

A relative high frequency of bleeding ulcers was also found in the pyloric part of the stomach (19,0-13,0%), and also more often in men (6,8%) than in women (1,3%; p<0,001). Only a small amount of gastrointestinal tract was observed from the cardia of the stomach (7–4,8%), with equal occurrence in men (1,3%), and in women - (1,7%).

**DISCUSSION**

Erosive lesions of the gastrointestinal tract are common in patients with cardiovascular disease and are the result of gastrointestinal ischemia, which reduces cardiac output, and low doses of acetylsalicylic acid in combination with anticoagulants.<sup>[6,12]</sup> According to A.L. Vertkina et al., in deceased patients with coronary heart

disease (CHD), erosions and ulcers in the stomach and intestines were found in 28% of cases, in those who died from myocardial infarction - in 23,9%, with chronic heart failure (CHF) - in 33,7%, and in most of these lesions were complicated by bleeding. With CHD, gastrointestinal bleeding occurred in 40% of cases, with myocardial infarction - in 44,1%, with CHF - in 35,3%.<sup>[1,3]</sup>

According to our data, the greatest bleeding in patients with coronary heart disease was observed in the antrum of the stomach (46,2%), and in men 3 times more often than in women (14,8% vs. 5,1%;  $p < 0,001$ ).

## CONCLUSION

Thus, the analysis showed that in the largest number of cases, ulcerative lesions were localized in the antrum of the stomach (46,2% of cases) and least of all were observed in the cardiac section (5,9% of cases). Of the complications, gastrointestinal tracts were most often recorded, which, for the most part, had antral localization (46,2% of cases).

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