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CONCOMITANT DISEASES AND RISK FACTORS OF GASTRODUODENAL EROSION IN THE CONDITIONS OF YAKUTIA

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The **purpose** of this study was to study concomitant diseases and risk factors for gastroduodenal erosion (GDE).

Materials and methods. A retrospective analysis of the medical history of 64 patients was carried out, including 36 women and 38 men, aged 26 to 82 years, average age 58 years. All patients undergoing inpatient treatment underwent a history of the disease, a complete clinical examination and laboratory and instrumental diagnostics. According to the time of their stay in the Far North, patients were divided into 2 groups - indigenous and alien.

Results and discussion. Among those examined with erosive lesions of gastric CO, males predominate. Of the age groups, GDE is often found in people over 50 years old, mainly in the indigenous population. Clinical symptoms are dominated by epigastric pain, heartburn, belching, and flatulence. More often chronic erosion is detected in the antrum and prepiloric stomach. According to a biopsy, in patients with gastric CO erosion, an inflammatory-hyperplastic type is detected in 51.2% of the indigenous and 43.4% of the newcomers, which indicates chronic erosion. Among the examined social groups, employees are more often found in 37.5% of cases and the predominance of urban residents is 74.2%, this is mainly due to the fact that people engaged in mental work are more often subjected to various psycho-emotional stresses, stresses, and mental breakdowns. The seasonality of revealing GDE in the autumn-spring period is noted. HDE is accompanied by diseases of the stomach: chronic gastritis, peptic ulcer, duodenogastric reflux and diseases of the hepatobiliary system: chronic cholecystitis, chronic pancreatitis, and cardiovascular diseases, which must be taken into account in the diagnosis and treatment of erosion. Risk factors for GDE are smoking, alcohol abuse, and psycho-emotional overload.

Keywords: gastroduodenal erosion, concomitant diseases, risk factors, hepatobiliary system, cardiovascular diseases.

According to modern data, erosion is the second most common pathology of the stomach and duodenum. Clinicians' attention to the problem of erosive and ulcerative injuries is due to the fact that erosion and acute ulcers of the stomach and duodenum are the cause of gastrointestinal bleeding and take second place after peptic ulcer. Thanks to esophagogastroduodenoscopy (EGD) with biopsy, our ideas about erosion of the stomach and duodenum have been enriched. Erosions differ from ulcers in etiology, healing processes and rates, and clinical manifestations. Erosions are often detected in patients with ulcer, with chronic active diffuse liver damage, tumors of the gastrointestinal tract, diseases of the cardiovascular and respiratory system, with kidney damage, etc., which raises the question of a complete examination of patients with gastroduodenal erosion (GDE) [1-3].

GDE is detected at autopsy in 6% of cases, and at endoscopy in 2-20%, including with ulcer - in 33 - 50%; with gastritis - in 14 -22%. And besides, they are found in cirrhosis of the liver, occurring with portal hypertension (in 10-40%); with heart defects, arterial hypertension (AH), coronary heart disease (CHD), especially with heart failure complications; with atherosclerosis of the abdominal part of the aorta and its branches (in 10-40%); in chronic non-specific diseases of the lungs and pulmonary heart disease (in 30%). These are secondary (symptomatic) GDE. An increase in the frequency of detection of GDE with age is noted; up to 60-90% after 50 years [2, 5].

GDE is found more often in men than in women (in a ratio of 1.5 - 2.8: 1), and gastric localization of erosion over duodenal prevails significantly: 75/25%, of which 95% is in the prepiloric zone and only 5% in the fundal department of gastric CO, the hemorrhagic complications of HDE are second only to gastric ulcer and duodenal ulcer.

Sometimes the erosive process in the stomach proceeds "under the mask" of other diseases: chronic cholecystitis, pneumonia, an infectious or tumor process. In such situations, it is almost impossible to assume the presence of GDE, they are detected by chance with EGD.

When analyzing complaints of patients with erosive gastritis, it was found that the predominant part of acute erosion is characterized by the scarcity of the symptoms of diseases: more often - heartburn, belching with acid and air; very rarely - fasting and fasting pains in the epigastric region of low intensity.

Acute erosion (OE) most often develops a second time as a complication of various diseases, and not only gastroenterological ones, while chronic erosion (CE) often proceeds in isolation, as the primary pathological process that affects the mucous membrane (CO) of the stomach and duodenum. ChE in 50% gives moderate pain on an empty stomach and early pain after eating. Flatulence and burping prevail. Over time, dull, aching pains are increasingly combined cramping. The severity in the abdomen increases, nausea, instability of the stool with a tendency to constipation are more often noted. Nausea is often combined with vomiting, and flatulence - with bitterness in the mouth [2, 4].

There are 2 groups of risk factors for GDE - exogenous and endogenous. Among the exogenous factors are called: Helicobacter pylori infection (HP), HP - the infection is not the main pathogenic factor of GDE and does not have any effect on their clinical manifestations, but it may contribute to the chronicity of the erosive process and its progression; local and systemic microcirculatory disorders, stressful effects; toxic-chemical, including medicinal (NSAIDs; GCS - glucocorticoid, potassium chloride, etc.), professional (vibration, vapors of fatty acids, alkalis, fluorine compounds, etc.) and alimentary (alcohol and its surrogates, spicy seasonings and spices , untreated coffee, etc.). Among the endogenous factors there are identified - acid peptic aggression; action of "detergents" (toxic bile acids and lysolecithin); with duodenogastric reflux (DGR); local immune disorders that lead to a decrease in the cytoprotective properties of CO stomach

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and duodenum; symptomatic GDE in various diseases of the internal organs; with extensive surgical interventions on the organs of the abdominal cavity, etc. With often recurrent GDR in the antrum of the stomach, erosion is detected in 70% of the examined [4, 5].

The purpose of this study is to study concomitant diseases and risk factors for HDE among indigenous and alien residents of Yakutia.

Materials and methods. A retrospective analysis of the medical history of 64 patients was carried out, including 36 women and 38 men, aged 26 to 82 years, average age 58 years. All patients who were hospitalized in the treatment department underwent a history of the disease, a complete clinical examination and laboratory and instrumental diagnostics. According to their stay in the Far North, patients were divided into 2 groups. 1 group of indigenous people permanently residing in the North, total 41 people, of which 26 are men and 15 women and 2 are newcomers who have arrived in Yakutia from other regions of Russia for 15 years, only 23 people, including 12 men and 11 women, as well as patients were distributed by social groups and place of residence. A prerequisite was to obtain informed consent from patients to participate in the study. Processing of research data was carried out according to the program "Office Microsoft Excel 2010". The results were considered reliable when the student value p less than 0.05 (p <0.05).

Results and discussion. The clinical symptoms of HDE are presented in Fig. 1. Regardless of the group, the pain symptom in the epigastric region prevails in 85.9%, heartburn in 70.3%, belching in 57.8% of patients. In the first group, in the vast majority of cases, periodic dull, aching pain in 54.3% of patients and heartburn in 83.5% (p <0.05) are disturbing. In the second group, paroxysmal, acute, stitching pains prevail in 60% of patients (p <0.05), belching with acid or air in 73.9% of patients (p <0.05).

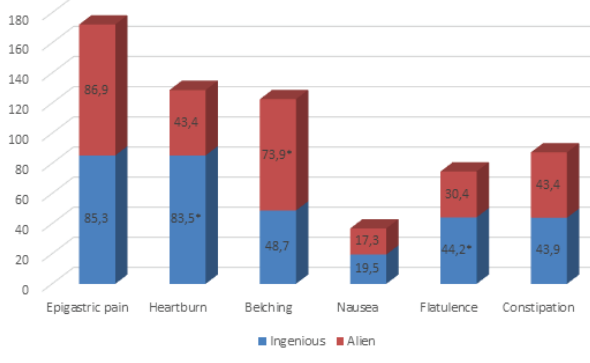

Fig. 1. Clinical symptoms in patients with HDE (%).
Note: * - p <0.05, significance of differences between indigenous and non- indigenous patients

According to endoscopy, the most typical localization of HDE, regardless of the group, is the antrum in 76.5% of cases, followed by the prepyloric department - 56.2% (Fig. 2).

According to a biopsy, in patients with gastric CO erosion, an inflammatory-hyperplastic type is detected in 51.2% of the indigenous and 43.4% of the newcomers, which indicates chronic erosion. This is followed by erosion, located on the polyposis fold in 29.2% in the indigenous and 39.6% in the newcomers, a hemorrhagic-necrotic type in 8.6% and erosion with fibrin plaque in 13% are detected less frequently (Fig. 3).

The ratio between acute and chronic erosion is 1: 4, the low percentage of detection of acute erosion is explained by the low number of people with this disease. Since acute erosion of gastric CO in the stomach in 60% of cases is not very symptomatic, and in 30% it is characterized by the absence of any manifestations. By the size of erosion in 68.7% of cases they do not exceed 0.5 cm in diameter, by the amount of 68.7% there are multiple erosions.

In the dynamics of observation of erosive defects of the coolant, examined during or after the course of treatment, there is a positive trend in 75.1%, a weakly positive trend in 20.3% and negative in 4.6% of patients.

All 64 examined patients have concomitant diseases, of which the leading place is occupied by diseases of the gastrointestinal tract (GIT). Gastritis predominates in 96.8%, with indigenous atrophic gastritis, and in newcomers mixed gastritis in 39.1%. In 90.6% of patients, chronic cholecystitis was detected, in 62.5% of patients with chronic pancreatitis. Of the diseases of other organs and systems, cardiovascular diseases are in the first place, in primary IHD - in 58.5% and in newcomers - hypertension - in 60.8% (Table 1).

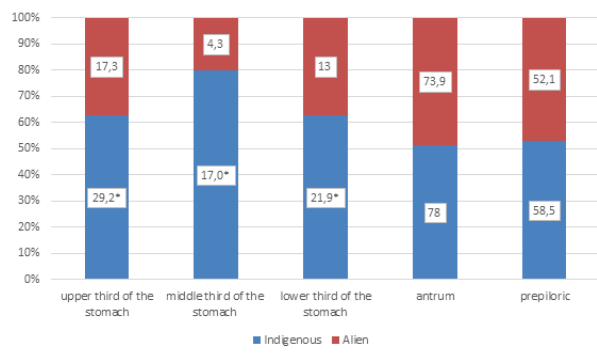

Fig. 2. Localization of erosion in the stomach (%)

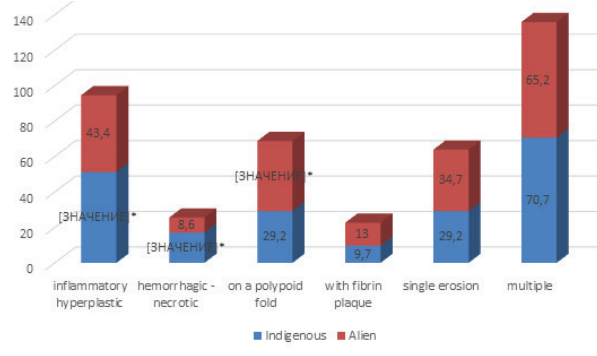

Fig.3. The results of the endoscopic examination of GDE with biopsy (%)

Among the examined groups, erosive lesions prevailed among the indigenous in 64.0%, in men in 59.4% more often than in women in 40.6%. The main contingent of patients is people older than 50 years, which is probably associated with a weakening of the body's defenses, the duration of exposure to gastric CO, adverse factors like smoking - in 35.9%, often in the newcomer population, violation of the diet - in 18.7 %, psychoemotional overload in 9.3% and alcohol abuse - in 9.3% of cases (Table 2).

Among the examined social groups, employees are more often found in 37.5% of cases and the predominance of urban residents is 74.2%, this is mainly due to the fact that people engaged in mental work are more often subjected to various psycho-emotional stresses, stresses, and mental breakdowns. According to the literature, it is known that people with dyspepsia report a greater level of stress at work and in the family and more problems associated with financial situation than people in the control group. Various studies have identified a relationship between depression, on the one hand, and chronic abdominal pain, female gender, single marital status and low income, on the other [4].

Seasonal exacerbations are more often observed in the autumn-spring

Table 1

Concomitant diseases in patients with HDE

pathology	indigenous		Non-indigenous		total	
	abs.	%	abs.	%	abs.	%
A. Gastrointestinal pathology						
1. Gastritis: atrophic	16	39.0*	8	34.7	24	37.5
mixed	12	29.2	9	39.1*	21	32.8
surface	11	26.8	6	26.0	17	26.5
2. Reflux - esophagitis	7	17.0	6	26.0	13	20.3
3. Peptic ulcer	3	7.3	4	17.3	7	10.9
4.Duodeno-gastric reflux	12	29.2	9	39.1*	21	32.8
5.Chronic cholecystitis	39	95.1*	19	82.6	58	90.6
6.Chronic pancreatitis	28	62.2*	12	52.1	40	62.5
7. Gallstone disease	1	2.4	2	8.6	3	4.6
8. Chronic colitis	7	17.0*	3	15.0	10	15.6
9. Colonoptosis	1	2.4	1	4.3	2	3.1
B. Diseases of other organs and systems						
1. Atherosclerosis	8	19.5	6	26.0	14	21.8
2.Arterial hypertension	20	48.7	14	60.8*	34	53.1
3. IHD	24	58.5*	12	52.1	34	53.1
4.Discirculatory encephalopathy	7	17.0	5	21.7	12	18.7
5.Osteochondrosis of the spine	16	39.0	9	39.1	25	39.0
6. Bronchial asthma	1	2.4	-	-	1	1.5
7. Diabetes	1	2.4	-	-	1	1.5
8.Chronic pyelonephritis	2	4.8	3	15.0	5	7.8

Table 2

GDD Risk Factors

Factors	indigenous		non-indigenous		total	
	abs.	%	abs.	%	abs	%
violation of diet	7	17	5	22	12	18.7
psycho-emotional stress	2	5	4	17	6	9.3
smoking	9	22	14	61*	23	35.9
alcohol abuse	3	7	3	13	6	9.3

period, which coincides with the data of various authors. In autumn, 30.1% of patients turned to and in the spring - 26.7%. The peak of exacerbations occurs in the month of October, at 16% and in May, at 12%. The smallest number of patients is observed in August - at 4.6%.

When studying the hereditary predisposition, convincing data were obtained on the relationship of dyspepsia with family burden for diseases of the gastroduodenal zone in 61.2% of patients. These indicators coincide with hereditary burden in patients with gastric ulcer and duodenal ulcer.

Conclusion. Among those examined with erosive lesions of gastric CO, males predominate. Of the age groups, GDE is often found in people over 50 years old, mainly in the indigenous population. Periodic, aching, dull epigastric pains and belching predominate in clinical symptoms in indigenous people, and paroxysmal sharp, stitching pains and heartburn in newcomers. Chronic erosion in the antrum of the stomach is more often detected.

GDE is accompanied by diseases of the stomach: chronic gastritis, ulcer, duodenogastric reflux and diseases of the hepatobiliary system: chronic cholecystitis, chronic pancreatitis, cardiovascular diseases: IHD and arterial hypertension, which must be taken into account in the diagnosis and treatment of erosion. Risk factors for HDE are smoking, alcohol abuse and neuropsychic overload, as well as eating disorders and comorbid conditions.

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