GENETIC INFLUENCES FOR PEPTIC ULCER DISEASE ARE INDEPENDENT OF GENETIC FACTORS IMPORTANT FOR HP INFECTION

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Abstract. *In the etiology of peptic ulcer, hereditary burden plays a certain role.*

Therefore, when studying the nature of hereditary predisposition to gastric ulcer (GU) and duodenal ulcer (DU), an important direction is the identification of genetic markers. In order to fulfill the tasks set in accordance with the purpose of the research, 725 patients with duodenal ulcer disease complicated with bleeding.

In our research, the relationship between body composition and clinical and laboratory indicators of bleeding was determined in the examination of patients with a complicated course of duodenal ulcer disease according to the most important clinical signs. Thus, in patients with duodenal ulcer disease complicated by bleeding, it was possible to choose treatment methods, size and type of surgery, taking into account the peculiarities of the constitutional body structure.

Key words: *helecobaktery pylori, gastric ulcer, duodenal ulcer,bleeding*

I. INTRODUCTION

In the etiology of peptic ulcer, hereditary burden plays a certain role.

Therefore, when studying the nature of hereditary predisposition to gastric ulcer (GU) and duodenal ulcer (DU), an important direction is the identification of genetic markers. In this regard, it is fundamentally important to study the N-acetyltransferase involved in the implementation of genetic information, and to elucidate the relationship of hereditary characteristics with the pathology of the ulcer. Recently, research has been carried out to obtain real biomodels and the creation of highly specific species primers for the N-acetyltransferase-1 and N-acetyltransferase-2 genes. According to the literature data, there is a relationship between the acetylation process and the etiology and pathogenesis of a number of diseases: peptic ulcer of the stomach and duodenum, ulcerative colitis, heart failure, infertility and peritoneal endometriosis, acute coronary syndrome, with pneumonia. And also when studying the state of the processes of acetylation of a number of diseases, a correlation was revealed between the activity of these processes and the severity of diseases, as well as their progression.

It should be noted that, in addition to genetic factors, environmental factors have claimed an etiological role in peptic ulcer: HP, non-steroidal anti-inflammatory drugs, cigarette smoking, stress and dietary factors.

Until the 19th century, ulcerative ulceration was uncommon, whether in the East or West. The rate of infection varies widely between Asians. This is low in Malays and Indonesians, in whom stomach ulcers and stomach cancer are uncommon. This is very high in India, where duodenal ulcers are common, but stomach ulcers and cancer are not. In the Chinese and Japanese, cancer is common, high, but the Chinese have a higher incidence of duodenal ulcer than the Japanese. HPi is believed to be the main cause of PU, and other environmental and genetic factors contribute to the formation of ulcers, supporting the concept of etiological heterogeneity. The description of the first stomach ulcer in human history probably belongs to a Chinese man who died 2,000 years ago in the Western Han Dynasty.

According to Abuzarov E.R. the nature of pathological changes in the ultrastructure of the gastric mucosa differs in patients with PU depending on the H. pylori genotypes, polymorphic loci of cytokine genes (IL-1 and IL-10), as well as the presence of combined (HP+M.heorhinis) infection. Molecular genetic markers of predisposition to PU and duodenal ulcer have been identified. It was found that the IL-1B-511*C allele and the IL-1B-511*C/*C genotype increase the risk of developing GU and duodenal ulcer associated with HP, while the IL-1B-511*T allele, the IL-1B-511*C/*T genotype reduce the likelihood of developing the disease. At the same time, the authors believe that genetic influences are of moderate importance for liability to peptic ulcer. Genetic influences for peptic ulcer disease are independent of genetic factors important for HP infection.

MATERIAL AND METHODS

In order to fulfill the tasks set in accordance with the purpose of the research, 725 patients with duodenal ulcer disease complicated with bleeding were treated in inpatient conditions between 2013 and 2021 in the surgical departments of the Urgench branch of the 1 SHKSH and the Republican Scientific Center for Emergency Medical Care. patients were examined. Complaints of all patients were asked, EGDFS, UQT, UST, blood groups, hemostasis indicators, examinations were conducted.

Out of 725 patients, 525 were men and 200 were women. The ratio of men to women was 2.6:1. The majority of patients were able-bodied men. Age of patients: (according to 2017 BJSST classification) 344 (47.45%) 18-44-year-olds, 206 (28.45%) 45-59-year-olds, 133 (18.3%) 60-74-year-olds , 42 (5.8%) were patients aged 75-90 years (Fig. 1).

First, 126 (17.4%) patients had gastric ulcer disease and duodenal ulcer disease in their anamnesis, 284 (39.2%) patients had ulcer disease up to 1 year, 76 (10.5%) patients had 1 - 3-year-old ulcer, 57(7.8%) patients had 3-5-year ulcer, 81(11.2%) had 5-10-year ulcer, 101(13.9%) had more than 10-year ulcer. many were ill within a year of ulcer disease.

RESULTS AND DISCUSSION

All patients had a specific course of the disease: 2-3 hours before the onset of bleeding, pain in the epigastric area increased, mainly at night, the pain was constant (in 341 patients), and decreased after the onset of bleeding. They (352 patients) felt general weakness, (178 patients) dizziness, (183 patients) nausea, "coffee grounds" type (627 patients), and (39 patients) vomiting of black blood was observed. After 8-12 hours after the reduction of pain in the abdomen, tarry stools were observed (in 511 patients).

When 511 patients were examined in the reception, the stool color was observed as coffee grounds, which indicates bleeding from the upper part of the gastrointestinal tract.

Primary wound disease complicated bleeding in 397 patients, bleeding recurred in 285 patients, and bleeding was observed multiple times in 43 patients. The time from the onset of bleeding to hospitalization varied from 2 hours to 1 week. Esophagogastroduodenofibroscopy was performed in all patients with gastroduodenal ulcer. We found a significant difference in the localization of the ulcer in the duodenal bulb. Ulcers complicated by bleeding were located in the posterior wall of the root of the duodenum in 473 patients, bleeding ulcers were located in the anterior wall in 97 patients, in the lesser curvature in 92 patients, and in the greater curvature in 58 patients.

I A – patent rapid bleeding in 12 (1.65%) patients;

IV – continuous capillary bleeding in 40 (5.5%) patients;

II A – bleeding in a large thrombosed vessel seen in 163 (22.5%) patients (thrombus diameter < 2 mm);

II V – 451 (62.2%) patients were covered with a large thrombus (thrombus size > 2 mm in diameter);

II S – 59 (8.15%) patients had no symptoms of bleeding (black spot, black spot).

Bleeding rate analysis of 725 patients was performed, and 227 (31.3%) patients had grade I bleeding, 347 (47.9%) had grade II bleeding, and 151 (20.8%) had grade III bleeding. shows.

The wound size was 0.5 cm in 167 patients, 1.0 cm in 463 patients, 1-2.0 cm in 60 patients, and more than 2.0 cm in 35 patients.

Among those examined, 462 (63.7%) patients were smokers. 263 (36.8%) examined patients had stress in their anamnesis.

173 (28.9%) patients had gastroduodenal ulcer with hypertension, 97 (13.37%) with cardiovascular disease, 128 (17.65%) patients with ulcer disease with joint disease, 269 (37.1% of cases were accompanied by anemia, 72 (9.9%) cases were accompanied by chronic cholecystitis without stones, pancreatitis and hepatitis.

In 697 (96.2%) patients, an emergency endoscopic examination was performed in the first hours after hospitalization, the nature and source of bleeding was determined, and important morphological criteria were obtained to determine the risk of recurrence of bleeding.

The following tasks were also assigned to the diagnosis of bleeding from a wound:

1. To study the source of bleeding, to determine the nature of the wound, to know whether the bleeding has stopped or resumed;

2. Determining the level of blood loss and the ability of the body to cover it;

3. Assessment of pathological disorders in the patient's organs and systems, disorders of the hemostasis system associated with blood loss.

A mild level of bleeding intensity was found in 27 (22.7%) patients, a moderate level in 67 (56.3%) patients, and a severe level in 25 (21%) patients, that is, 2/3 of 119 patients (77, More than 3%) were admitted to the department with moderate and severe intensity of bleeding. The condition of blood hemostasis system was studied in 119 patients. When the bleeding stopped, the patients, as well as the blood hemostasis system, underwent a clinical

examination.

In 725 patients with a bleeding duodenal ulcer, the level and condition of blood loss were compared, which is given in Table1

Degree of blood loss	**1 degree 227 (31,3%)**	**2 degree 347 (47,9%)**	**3 degree 151 (20,8%)**
The severity of the patient's condition, which is fully determined by general clinical signs	Satisfactory 218 (30,3%).	Moderate severity 357 (49,2%)	Severity level 150 (20,7%)

Table 6 shows that the nature of the change of these indicators is related to the level of blood loss, from which it can be seen that blood loss is observed with a decrease in the amount of total protein. Bilirubin, AST, ALT did not show changes related to bleeding 1. Thus, the diagnosis of a bleeding duodenal ulcer, the degree of blood loss and the intensity of bleeding are based on clinical, endoscopic and laboratory data.

The most common symptoms are tarry stools and weakness. Often, bleeding from a wound occurs against the background of white syndrome.

Correlations between bleeding and body composition were found in all examinedpatients.

Correlation between body structure and indicators of hemostasis in female and male patients with asthenic body structure.

Complicated bleeding of gastric and duodenal ulcer diseases, asthenic body structure, female patients with body structure and indicators of hemostasis system (platelet aggregation, QIV, thrombin generation time, QFTV, PTI) a strong inverse correlation (r= - 0.47) was found between A correct correlation was found between platelet aggregation and fibrinogen, as well as between body composition and thrombin generation time (r=0.56), ($p<0.05$). in male patients with asthenic body structure, a strong inverse correlation (r= - 0.38) was found between body structure and indicators of the hemostasis system

(platelet aggregation, thrombin generation time). A correct correlation was found between platelet aggregation and fibrinogen, as well as between platelet aggregation and QFTV (r= 0.61). (p<0.05).

A strong inverse correlation between body composition and indicators of hemostasis system (QIV, thrombin generation time, PTI) was observed in female patients with normosthenic body composition, with bleeding complications of gastric and duodenal ulcers. correlation (r= - 0.79) was determined. A correct correlation was found between platelet aggregation and thrombin generation time, body structure and platelet aggregation, QIV and QFTV, as well as between body structure and fibrinogen amount (r= 0.62). (p<0.05). In male patients, a strong inverse correlation (r= - 0.76) was found between normosthenic body structure and indicators of hemostasis system (QIV, Platelet aggregation, QFTV). and between the amount of fibrinogen, a correct correlation was found (r= 0.53) (p<0.05).

Strong inverse correlation between body composition and indicators of hemostasis system (QIV, thrombin generation time, QFTV) in female patients with hypersthenic body structure, complicated bleeding of gastric and duodenal ulcers correlation (r=-0.90) was found.

Correlation between body structure and indicators of hemostasis in female and male patients with normosthenic body structure.

A correct correlation was found between platelet aggregation and fibrinogen amount, platelet aggregation and thrombin generation time, and between QIV and QFTV (r= 0.87). (p<0.05).

In male patients, a strong inverse correlation (r=-0.83) was found between hypersthenic body structure and hemostasis system indicators: platelet aggregation and thrombin formation time, as well as QFTV and fibrinogen.

A correct correlation was found between platelet aggregation and fibrinogen, as well as between PTI and thrombin generation time (r= 0.80), (p<0.05).

Correlation between body structure and indicators of hemostasis in

female and male patients with hypersthenic body structure.

It is appropriate to use the obtained results as a criterion for assessing the condition of patients with gastric and duodenal ulcers complicated by bleeding, which indicated the need for very early surgical intervention when changes in the indicators of the hemostasis system were observed.

A correct correlation was found between thrombin generation time and QFTV ($r=0.71$). ($p<0.05$).

CONCLUSIONS

Thus, in patients with duodenal ulcer disease complicated by bleeding, it was possible to choose treatment methods, size and type of surgery, taking into account the peculiarities of the constitutional body structure.

It is necessary to assess the patient's condition and implement treatment tactics, taking into account the body structure (asthenic, normosthenic, hypersthenic) of patients with duodenal ulcer disease complicated by bleeding.

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