These changes in one of the indicators of the non-enzymatic link of the antioxidant system, in our opinion, can be explained as follows. 8-iso-PgF2α belongs to the eicosanoid family, it is synthesized from arachidanic (eicosanic) acid - a fatty acid that is part of the phospholipids of cell membranes [5]. The development of GERD intensifies the processes of apoptosis and, thereby, the destruction of cells with an increased yield of these acids. In the erosive form of GERD, the participation of deep layers of the esophageal mucosa and the formation of a systemic inflammatory response are characteristic, which increases the content of 8-isoprostane. Consequently, an increase in the content of the non-enzymatic component in the blood serum of patients with GERD is natural, and the morphological form of the disease (erosive process) is supported by its pronounced negative dynamics.

Conclusions. Conclusions. The presence of GERD in students is accompanied by the activity of the non-enzymatic link of the antioxidant system, which is due to the development of an inflammatory reaction in the esophageal mucosa. The presence of an erosive form of GERD is accompanied by a more significant increase in the level of 8-isoprostane in comparison with non-erosive.

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TUMOR NECROSIS FACTOR ALPHA IN STUDENTS WITH GASTROESOPHAGEAL REFLUX DISEASE

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Relevance. The digestive system is one of the most frequent systems, changes in which are formed in the student environment. Diseases of the gastrointestinal tract in

such a contingent of patients have clear patterns, which are caused not only by the participation of the nervous system, but also by the rhythm, quality, volume and time of eating. Gastroesophageal reflux disease is the most common gastroenterological disease in the population. Even among such a relatively healthy contingent as medical students, its prevalence was 16.8% [1]. A study conducted among Italian students showed that 26.2% had typical symptoms of gastroesophageal reflux disease, occurring at least once a week [2].

Aim of study. Purpose of the work: to determine the content of tumor necrosis factor – alpha (TNF-α) in students with gastroesophageal reflux disease.

Methods. Materials and methods. The work involved 45 students with gastroesophageal reflux disease at the age from 18 to 25 years, the average age is 21.2 ± 2.4 years; 20 practically healthy persons identical to the previous groups in terms of age, gender and social status constituted the control group. Protocols for the management of patients with gastroesophageal reflux disease and ICD-10 were used at diagnosis. The concentration of TNF-α was determined in the blood serum by enzyme-linked immunosorbent assay using commercial kits "Bender MedSystems GmbH" (Austria).

Results and discussion. Results and its discussion. The analysis of the study results showed that in patients with gastroesophageal reflux disease there is a significant increase in the content of the anti-inflammatory cytokine TNF-α (5.2 (4.2; 6.9) pg/ml) in comparison with the control group (1.7 (0.91; 2.4) pg/ml), $p<0.01$. Such changes confirm the presence of an active inflammatory process in the esophageal mucosa. A repeated study of TNF-α in 2 months of 21 patients showed the preservation of the increased content (3.2 (2.4; 3.9) pg/ml), but these results were significantly different from the initial values, $p<0.01$. The persistence of elevated numbers of this cytokine can be considered as prerequisites for the progression of pathology and the formation of complications. Thus, gastroesophageal reflux disease in students is accompanied by an increase in the content of pro-inflammatory cytokine. The increase in TNF-α content can be explained, on the one hand, by the inflammatory process in the esophageal mucosa in gastroesophageal reflux disease, on the other hand, by the young age of the patients.

Conclusions. Conclusions. Gastroesophageal reflux disease is accompanied by a significant increase in the content of pro-inflammatory cytokine TNF-α. Study of TNF-α in 2 months showed the preservation of the increased content.

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