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THE EFFECT OF L-GLUTATHIONE ON GASTRIC MUCOSA AFTER H. PYLORI ERADICATION IN PATIENTS WITH NONALCOHOLIC STEATOHEPATITIS

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Non-alcoholic fatty liver disease is considered to be the hepatic display of a metabolic syndrome and diabetes mellitus type 2. In such cases, the gastrointestinal tract is often affected. That is why it is important to get an early identification and a proper treatment of gastrointestinal complications for improving both a diabetic care and a quality of patient's life.

Aim of the study: to study the effect of L-glutathione on gastric mucosa in patients with nonalcoholic steatohepatitis (NASH) and diabetes mellitus type 2 after Helicobacter (H.) pylori eradication.

This study was conducted on 54 patients with NASH and diabetes mellitus type 2 (29 men and 25 women) with a middle age of $53,8 \pm 7,6$ years. The diagnosis of H. pylori infection in each patient was carried out using 2 methods: a rapid urease test and the determination of H.pylori antigen in feces. An antigelicobacter therapy was being performed by a 4-component scheme during 2 weeks. After the eradication therapy, patients were divided into two groups: twice a day 27 patients were prescribed to get injections of L-glutathione, 2 capsules at once in addition to a basic therapy (group 1) for six weeks, whereas other 27 patients were treated only with the basic therapy (group 2). The upper endoscopy, morphological evaluation of gastric biopsy specimens, liver sonography, liver enzymes (ALT, alanine aminotransferase; AST, aspartate aminotransferase) were evaluated before and after the treatment period.

In both groups, the successful eradication of H.pylori led to the reduction of endoscopic signs of inflammation, stomach and duodenal ulcers healing, epithelialization of gastroduodenal erosions, to the improvement of gastric mucosa histology and the reduction of gastritis activity level. However, the basic group 1 showed more significant clinical improvement, comparing with the group 2, in which dispepsia (nausea, early satiety, the feeling of heaviness in the epigastrium after eating, eructation, regurgitation) were still present in 29.6% patients by the end of the treatment unlike in group 1, where the indicator is 14.8% ($p < 0.001$). In both of the groups, a significant ($p < 0.001$) reduction of inflammatory cell infiltration was noticed. However, better results were found in group 1 as the level of polymorphonuclear infiltration decreased by 63.9%, mononuclear infiltration - by 66.7% ($p < 0.001$) whereas in the comparative group 2 these indicators reduces to 44.1% and 47.4% ($p < 0.001$). In addition, a half of the group 2, had degenerative and necrotic changes of epithelial cells with multiple cases of gastroduodenal erosion after 6 weeks of treatment. The display of atrophic changes in the mucous membrane of stomach, intestinal metaplasia, microvasculature condition were not statistically different before and after treatment in both groups. At the same time, there was a significant decrease on the matter of liver enzymes indicators in the main group 1 till the norm is reached after 6 weeks of the L-glutathione therapy. In the comparing group, the same indicators remained above the norm and significantly ($p < 0.05$) differed from those achieved in the main group ($p < 0.05$).

The L-glutathione prescription after the anti-gelibacter therapy allowed to optimize the course of therapy in general. According to the results of the study, L-glutathione contributed to more rapid regression of gastroduodenal mucosa inflammatory infiltration and showed cell protective effects.

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QUALITY OF LIFE IN PATIENTS WITH CHRONIC HEART FAILURE AND DIABETES MELLITUS TYPE 2

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Diabetes mellitus (DM) is one of the leading medical-social problems of the modern society due to its high incidence, frequent comorbidity, increased mortality, high risk of chronic vessel complications.

The aim of the research was to determine the impact of chronic heart failure and diabetes mellitus type 2 on the quality of life of elderly and senile patients.

A comprehensive survey of 108 patients with chronic heart failure (HF) of ischemic origin and DM type 2 was conducted. The average age of the patients was $76,04 \pm 1,84$ years. All examined patients according to their comorbidities were randomized into the following subgroups: I patients with HF without DM type 2 ($n=32$), II patients with HF, complicated by comorbid DM type 2 ($n=76$). The control group for comparative studies comprised 24 people without HF and DM type 2, whose age was not significantly different from the average age of the patients of the experimental groups. Quality of life was determined by Mezzich J. E., Cohen M., Ruiperez N. et al. questionnaire.

The level of physical welfare was the highest in the patients of the control group ($6,2 \pm 0,56$ points) dominating over the corresponding figure in the group of patients with chronic HF up to 1,37 times ($4,5 \pm 0,48$ points, $p < 0,05$), and up to 2.82 times ($2,2 \pm 0,11$ points, $p < 0,05$) in patients with chronic HF and DM type 2. Value of the index of psychological and emotional welfare in the patients of the control group was 57% more than in the patients with heart



failure, its lowest value was determined in the patients of II group – $2,1 \pm 0,25$ points, which differed significantly from the patients of the control group ($p < 0,05$) and the patients of the I group ($p < 0,05$).

The lowest level of self-service and independence of activity was detected in the patients with chronic HF and diabetes mellitus type 2 ($4,1 \pm 0,14$ points), being significantly different from the corresponding value in the group of patients with heart failure of ischemic origin ($6,3 \pm 1,11$ points, $p < 0,05$), and the control group ($9,4 \pm 0,62$ points, $p < 0,05$). The work ability index was higher in patients of both experimental groups than in the patients of the control group. Thus, both in the patients with isolated HF and in the patients with a combined course of chronic HF and diabetes mellitus type 2 the difference between the corresponding values was statistically significant. same as compared to the patients with the control group ($2,5 \pm 0,60$ points and $3,8 \pm 0,09$ points to $5,4 \pm 1,08$ points, correspondingly, $p < 0,05$).

The level of interpersonal interaction and socio-emotional support was statistically significantly lower in comparison with the control group only in the patients of II experimental group. The lowest value of this index in the patients with chronic heart failure was statistically doubtful in comparison with patients of the control group.

The level of public support in the patients of I experimental group was statistically unlikely lower than in the control group ($6,4 \pm 1,03$ against $8,6 \pm 0,65$ points, $p > 0,05$). In the patients with chronic heart failure and diabetes mellitus type 2, the following figure was $4,6 \pm 0,32$ points, being statistically significantly different from the patients of the control group ($p < 0,05$). The figure of the personal implementation was the highest in the patients of the control group ($7,4 \pm 0,64$ points). Due to chronic heart failure of ischemic origin its decreasing to $5,67 \pm 0,52$ points was determined, though we found no statistically significant difference comparing to the control group ($p > 0,05$). The lowest level of personal implementation was detected in the experimental II group of patients with HF and DM type 2 ($2,8 \pm 0,40$ points, $p < 0,05$ comparing with both control and I group). The index of religious implementation was almost equal in all investigated groups. Comparing with the control group overall perception of quality of life in patients with chronic heart failure was lower by 23%, and in patients with heart failure and diabetes mellitus type 2 – by 42% correspondingly ($p < 0,05$ in both cases).

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GASTROESOPHOGEAL REFLUX DISEASE AND HYPOTHYROIDISM: FEATURES OF INTERDEPENDENCE

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The condition known as "GERD" is increasing worldwide, which isn't surprising considering the number of individuals suffering from chronic illnesses impacting gastric functioning. GERD stands for "gastroesophageal reflux disease", which is generally chronic acid reflux. It is the most common gastrointestinal diagnosis in an outpatient care, and its impact on healthcare cost is reported to be extremely high.

GERD can range from occasional discomfort to a more serious condition known as Barrett's esophagus. The degrees to which GERD can affect an individual's quality of life is comparable to that of heart disease, diabetes, and obesity. As with many chronic conditions, it is more closely related to other body systems than most physicians are willing to recognize. Some experts consider GERD to be a red flag for a thyroid condition, and vice versa, yet physicians usually don't address the relationship between the two. Excess stomach acid is often considered the culprit. When it comes to thyroid disease, it is easy for your thyroid doctor to focus solely on the hormone lab results and overlook the importance of digestive health. Yet by recognizing the conditions together, one can make great strides in overcoming them via individualized nutritional, hormonal and lifestyle modifications.

Common GERD triggers: chocolate, citrus, alcohol, fatty or fried foods, tomatoes, garlic, onion, caffeine, extra weight, smoking, tight clothes, big meals. When it comes to the thyroid, your thyroid doctor must understand the importance of gut health in a treatment protocol. The majority of the immune system located in the gut, but the thyroid relies on healthy gut bacteria to convert thyroid hormone T_4 to active T_3 as well. Another consideration is the close relationship between stress, thyroid, and the digestive tract. Stress can contribute to intestinal permeability, which is associated with autoimmune disease and symptoms that come with it.

An elimination diet can provide the first step towards improved gut health. Foods to eliminate for at least 2 weeks (4 is better) are: gluten, dairy, corn, soy, eggs, and yeast. Next, reintroduce them one at a time in 72-hour increments, while keeping a journal of how you feel afterwards. More nutritional and lifestyle modifications for GERD and hypothyroidism: eliminate processed foods, sugar and identified food intolerances; avoid gluten; lose extra weight; quit smoking; manage stress, i.e. meditation, yoga; thyroid support supplements i.e. vitamins A & D, selenium, and zinc; minimize exposure to chloride, fluoride, and bromide (avoid tap water). Remember: there is no "one-size-fits-all" treatment.