

EFFECTIVENESS OF MEMBRANE-STABILIZING THERAPY IN CHRONIC GASTRODUDENITIS

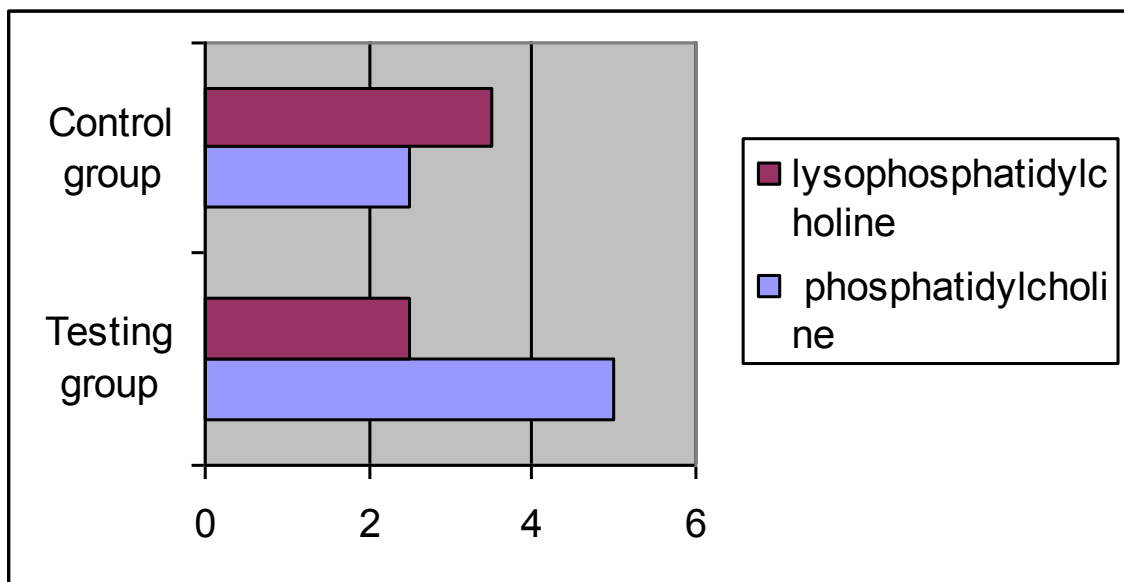
Relevance. One of the major problem associated with chronic gastroduodenitis is aspects of treatment and prevention of a relapses of a disease. There are terms, which are associated with chronic gastroduodenitis (etiology, clinical features), they have more significantly outstripped progress rather than the development of principles of therapy. This calls for further search and development of the principles of therapeutic correction manifestations of chronic gastroduodenitis. At the same time, there are areas of therapeutic strategy, which are based on modern concepts of pathology, the latest developments of Gastroenterology, the research of pathogenic provisions of chronic gastroduodenitis(2,5,7). According to the concepts of modern pathology the most pathological processes are based on the structural disruption of cell membranes of tissues and organs(1,2,3,6). The severity and the generalization of these processes depend on the severity of a disease and the degree of disruptions in organ or system of organs. The outcome of the disease (complete recovery, prolonged duration, chronicity of the pathological process) depends on the efficiency of repair processes of structural and functional organization of the cell membrane(8). The diseases of gastrointestinal tract follow these principles(5). The pathology of the cell membrane is associated with formation of acute and chronic diseases of the gastrointestinal tract. This provision determines the prospects of the development of the principles of treatment of diseases of the gastrointestinal tract with the use of drugs with membrane-stabilizing effect, especially in the chronic courses. Of among the drugs it is more preferred the natural biological complex and primarily vegetable oils(4,5).

Based on the above preconditions our purpose was to conduct research on the efficiency of food supplements in the form of soybean oil in the complex treatment of chronic gastroduodenitis.

Materials and methods. The basis of these studies was clinical and special surveys that monitor the therapeutic efficiency of supplementation of soybean oil in the diet of patients with chronic gastroduodenitis. A testing group of 28 patients presented with chronic gastroduodenitis with duration of disease over 2-3 years. All surveyed patients from the group were received the combined therapy in dietary supplements in the form of soybean oil, according to the endoscopy we have revealed surface and subatrophic gastroduodenitis. The control group consisted of 28 patients who did not receive the soybean oil in the complex treatment.

History data of the control group, the etiological factors in the formation of pathology, duration of the disease and clinical manifestations were identical provided a basis for valid statistical comparison of the results.

Analysis of spectrum of the leading classes of phosphatidyletanolamine, phosphatidylserine, phospholipids: easily oxidized phospholipid fraction \ hard oxidized phospholipid fraction. It was detected that phosphatidylserine and phosphatidyletanolamine belong to easily oxidized phospholipids factions and sphingomyelin and phosphatidylcholine belong to hard oxidized phospholipids. We analyzed the ratio phosphatidylcholine / lyzophotidilcholine.



Picture 1 - Chart shows indicators of the phospholipids spectrum in patients with chronic gastroduodenitis from testing and control groups.

The soybean oil was received in dose of 20-30ml three times a day with the yogurt in testing group of patients. This combination eliminates the subjective non-perception of the soybean oil. Usage in this form is well-accepted food supplement without any subjectively disorders and disorders of the gastrointestinal tract. The course of treatment is 2 weeks. We made the chromatographic analysis of the spectrum of the main classes of lipids after the introduction of complex treatment of the soybean oil. In this case, we found the lipid composition of the soybean oil: phospholipids, phosphatidyletanolamine. Selecting the soybean oil as a dietary supplement had its advantage over other available vegetable oils, for example the sunflower or corn oils, for its adequate composition of lipids, largely approaching the spectrum of the various lipid complexes in the lipid bilayer of the cell membranes in

healthy organism (on the model of the lipid bilayer of erythrocyte membranes). Structural and functional organization of the cell membrane confirms the effectiveness of nutritional supplements in the treatment of the chronic gastroduodenitis in the control group.

The study showed more optimal trend of stabilization of leading classes of phospholipids in testing of patients from the group that received the combined therapy with dietary supplements in the form of the soybean oil. There was a similar trend in the control group, but less pronounced. Thus, at the end of treatment we revealed statistically significant differences in the spectrum of phospholipids: the damage sphingomyelin ($p < 0.05$), phosphatidylserine, phosphatidyletanolamine, ($p < 0.01$), and the phosphatidylcholine / lysophosphatidylcholine and easily oxidized phospholipids / hard oxidized phospholipids ($p < 0.001$).

In this case, statistically significant differences in the coefficient of the ratio of phosphatidylcholine / lysophosphatidylcholine is extremely high in testing groups, despite the lack of statistical significance we differentiate the partial values of lysophosphatidylcholine and phosphatidylcholine in this group (see chart).

Thus, the evidence strongly suggests about effective impact of membrane stabilizing nutritional supplements in the form of the soybean oil in patients with chronic gastroduodenitis.

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Түйін: Созылмалы гастродуоденит кезіндегі мембрана тұрақтандырушы емнің тиімділігі

Бұл жұмыста асқазан-ішек жолдарында ауытқуы бар аурудың жасуша мембранасының фосфолипидті саласының көрсеткіштері зерттелген. Жасуша мембранасының фосфолипидті саласы метаболизмнің ауытқуы айқындалған. Анықталған ауытқуларды коррекциялау мембрананы тұрақтандырушы қасиеті бар соя майымен жүргізілді.

Кілт сөздер: созылмалы гастродуоденит, клиника, жасуша, мембрана.

Резюме: Эффективность применения мембранно-стабилизирующей терапии при хроническом гастродуодените

В настоящей работе у больных желудочно-кишечной патологии исследованы показатели фосфолипидного спектра клеточных мембран. Выявлены нарушения метаболизма фосфолипидного спектра клеточных мембран. Коррекция выявленных нарушений проводилось соевым маслом, обладающий мембраностабилизирующим свойством.

Ключевые слова: хронический гастродуоденит, клиника, клетка, мембрана.