Clinical and pathogenetic features enteropancreatic syndrome in patients with chronic pancreatitis and its correction at the outpatient stage

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Key words: chronic pancreatitis, dysbiosis of the colon, pyridoxine, thiamine, B_1 and B_6 vitamin deficiencies

Introduction. Chronic pancreatitis (CP) in combination with exocrine pancreatic insufficiency and presence enteropankreatychnoho syndrome accompanied by dysbiosis colon (DSC). Often broken in CP hydrolysis of food nutrients under the action of pancreatic and intestinal enzymes accompanied by a receipt for colon insufficiently digested proteins resulting activated proteolytic microflora of the gut (IFC), which provides the processes of decay with a lot of toxic substances (ammonia, mercaptans, indole, skatole) and violation depth digestion in the duodenum and other parts of the small intestine, which in turn leads to its own revenues intestine leftover food, not prepared for recycling. Prolonged and excessive use of patients with CP replacement therapy drugs containing pancreatic enzymes, especially those containing cellulose and hemicellulose, accompanied by deep hydrolysis of basic food components (proteins, fats, carbohydrates and fiber), metabolites are necessary for food IFC and maintain normal microbiota [1, 6].

IFC normal colon wall digestion process provides a synthesis of B vitamins (B1, B2, B6, B12), vitamins C, PP, folic and pantothenic acids. The emergence DSC entails the development of appropriate vitamin deficiencies, violation of local immunity, reduce antiviral and antitumor protection.

Early clinical symptoms of hypovitaminosis $_{B1}$ and $_{B6}$ of the digestive system (loss of appetite, nausea, constipation), nervous system (headache, irritability, weakening of memory, somnolence) are common in patients with CP, which prompted us to study this more issue [2, 7].

The aim is to determine the level of vitamin $_{B1}$ (thiamine) and $_{B6}$ (pyridoxine) in patients with concomitant CP DSC and set the dynamics of their proposed programs influenced correction.

Materials and methods of research. The object of the study were 46 patients with CP in remission or non-remission who were treated in day care Ternopil City Hospital № 2. Age of patients — from 18 to 69 years, of them — 26 women and 20 men. Verification of diagnosis was performed in accordance with the classification CP work proposed by YS Zimmermann amended NB Gubergrits [3]. Determining levels of vitamins $_{B1}$ and $_{B6}$ flyuorometrychnym conducted by the method VN Bukin and EP Skorobogatov. All surveys conducted studies on koprokultury DSC by the method of R. Epstein-Litvak and FL Vilshany (1977). The severity of DSK established in accordance with generally accepted classification (GI Kuznetsov, 1975; IB Kuvaeva, KS Lado, 1991) [5].

Surveyed were divided into two groups: the first (21 patients) received conventional treatment regimen that included diet number 5p by Pevzner, refusing from alcohol and smoking, the use of digestive motility regulators —

antispasmodic (Nospanum 0.04 2 tab. 2 g/d) and/or prokinetic (Motilium 0.01 on 1 tab. 3 g/d), H_2-receptor blockers (Kvamatel 0.02 at night) and/or proton pump inhibitors (proksium 0.04 in the morning) and enzymes (Creon 25000 1 cap. 3 g/d). All means intended "on demand" because patients were in remission or non-remission [4]. 2nd (25 people) in addition to conventional treatment regimens received pre pro- biotic drug laktialye 2 capsules a day after the main meal for 4 weeks.

Results and discussion. Clinical studies have revealed the presence of these syndromes patients: pain — in 80.9% of patients of 1 group and in 84.0% of patients in 2 group, asthenic-neurotic — in 71.4% and 80.0%, dyspeptic — in 85.7% and 100%, anemic — in 61.9% and 68.0%, steatorrhea — in 66.7% and 76.0% respectively.

In determining the levels of vitamins $_{B1}$ and $_{B6}$ (standard thiamine in serum — 0,03-0,045 mmol/l of pyridoxine — 0,059-1,06 mmol/L) reduction value is set to thiamine 1 group to 0.027 mmol/l, 2 group — to 0.020 mmol/l of pyridoxine to a level of 0.055 mmol/l in 1 group and 0.047 mmol/l in 2 group, which makes it possible to ascertain vitamin deficiencies in all surveyed patients in both groups before treatment.

In assessing coproculture inoculation among patients of 1 group was found in 47.6% — HBF, in 19.0% — DSC II. In 33.4% of patients dysbiotic changes were observed. In the surveyed group 2 established a presence in 48.0% — HBF I in., 20.0% — DSC II, in 12.0% — DSC III, in 20.0% of patients were indicators normal. Thus, these two groups were comparable with somewhat deeper manifestations HBF 2-gies group.

After treatment programs offered by correcting observed positive dynamics of clinical syndromes, thiamine level indicators and pyridoxine and the results coproculture inoculation in both groups. However, the results in the group with the inclusion of pre probiotic drug lactiale were significantly better than those in 1 group ($p<0.05$).

Results of treatment options for clinical symptoms shown in Fig. 1. Clinical syndromes in patients surveyed after the course of treatment were observed less frequently: among patients of 1 group average of 27.9%, and in patients of 2 group — by 47.4%.

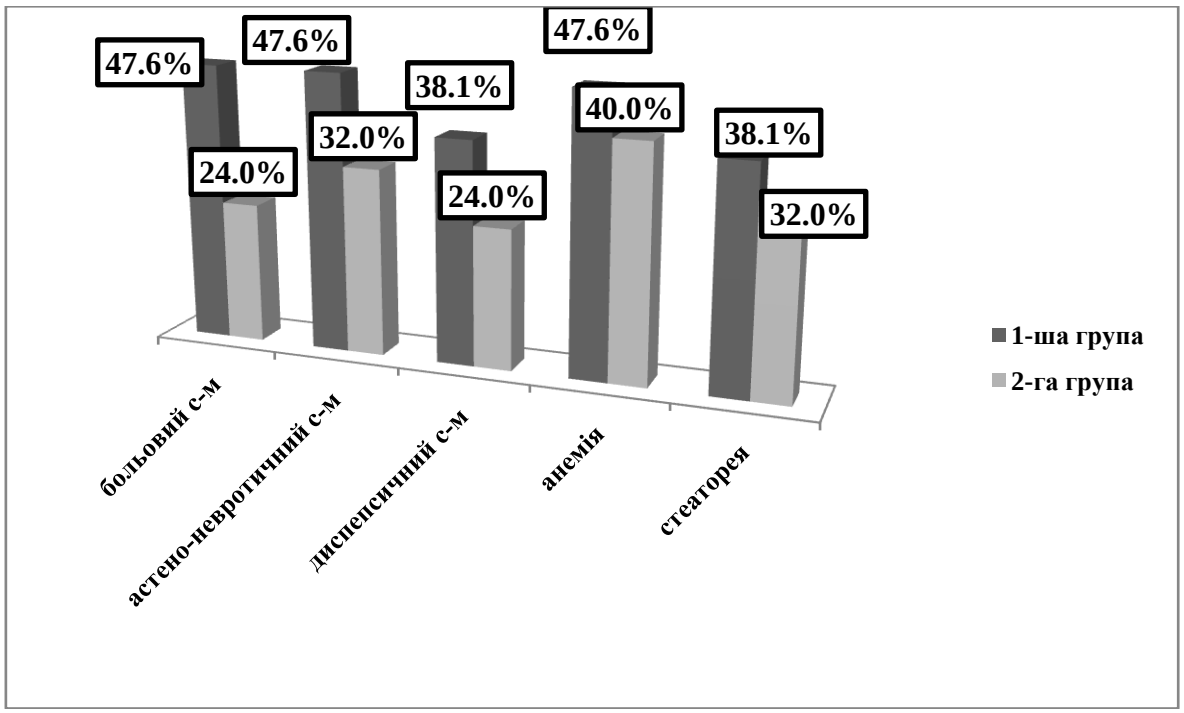

Fig. 1 Dynamics of clinical symptoms under various schemes for correction.

Evaluating the results of repeated determinations thiamine, and pyridoxine, showed growth of data rates in 2-gies group to the lower limit of normal (B_1 — 0.032 mmol/L, B_6 — 0.060 mmol/l) and results in 1 shiy group, although increased but the difference did not exceed the statistical error.

Results of coproculture inoculation showed that patients first group, although there was a positive trend, but in 38.1% of patients found DBK I, in 14.3% — DSC II. In 47.6% answered indicators are normal. And in patients of 2 group of intestinal flora to normal, only 24.0% of patients experienced DBK I.

Conclusions:

1. With the deepening DSC pyridoxine and thiamine content was reduced to the level of vitamin deficiencies.
2. The inclusion of pre-biotic drug lactiale to complex corrections of chronic pancreatitis much improved state patients not only by options colon dysbiosis (microflora normalized only at 24.0% I observed DSK in.), but the dynamics of clinical syndromes (for a total of 47.4%) and levels thiamine andpyridoxine in serum blood (total to 43.9%) ($p < 0.05$).

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On the basis of coproculture of the patients with chronic pancreatitis, studied by R.V. Epstein-Lytvak and F.L. Ol'shanskaya technique, the lowering of the bifido- and lactobacteria growth has been stated, as well as the increasing numbers of conditionally pathogenic microorganisms. Dysbiosis of colon has been determined in 67.4% of patients. The presence of dysbiosis complicated the course of the basic disease and deepened the insufficiency of pyridoxine and thiamine to the level of deficiency. The inclusion of pro-prebiotic preparation lactiale in the complex correction of chronic pancreatitis has greatly improved the condition of patients not only in terms of dysbiosis of the colon (microflora was normalized), but also of the dynamics of clinical syndromes (totally by 47.4%) and the level of thiamine and pyridoxine in blood serum (totally of 43.9%) ($p<0.05$).