

## BIOCHEMICAL INDEXES DEVELOPMENTS DYNAMICS IN PATIENTS WITH CHRONIC PANCREATITIS

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**Introduction.** The chronic pancreatitis (CP) represents one of the most commonly spread and the fastest progressing disease of the pancreas gland (growth up to 70.0 %) resulting in the high frequency occurrence of temporary disability and primary disablement (up to 15.0 %). The medical and social weight of CP is determined by such associative conditions as abdominal pain, steatorrhea and diabetes mellitus. The risk of CP transformation into pancreas gland (PG) cancer makes 5 % per year and increases significantly along with the disease duration prolongation and patient age. The prevalence of CP among the population of Ukraine according to the statistics represents 25–30 persons for 100,000 of people. The amount of CP patients has increased twice for the next 30–40 years.

**Aim.** The aim of the work was to study the clinical and biochemical indexes developments in patients with the chronic pancreatitis.

**Materials and methods.** 20 patients with CP were examined receiving medical treatment in Pervomaisk Regional Hospital of Kharkivska Oblast` in 2017. There were 12 women and 8 men among them. In the moment of hospitalization as well as to control the therapy the biochemical blood test was conducted to all the patients. It included the evaluation of ferment activity of alanine-aminotransferase (ALT), aspartate aminotransferase (AST), alkaline phosphatase and alpha amylase, the determination of bilirubin, total protein, thymol test and glucose concentration content. The tests were held on the Solar Ukraine spectrophotometer with Felic-it-Diagnostics assay kit, Ukraine.

**Results and discussion.** In the moment of hospitalization, they determined the total bilirubin increase, mostly because of straight conjugate form (almost in 1.5 times,  $p \leq 0.05$ ) which is the result of long-lasting inflammation in PG. It was also revealed the increase of activity of ALT, AST, alkaline phosphatase in blood, alpha amylase in blood and urine that proved the acute condition of CP. The total protein level and thymol test was within normal range. Most of the patients had the glucose concentration in blood in a norm except the three of them: they showed hyperglycemia and glucosuria.

After the treatment, the bilirubin level indexes in blood stayed increased with some patients (7 women) in the comparison with the maximum allowed interval, which showed the insufficient compensation of pancreas gland and other organs association in the inflammation process, in particular, the cholecystis or liver. It could also be testified by insufficient level of alkaline phosphatase, AST and ALT activity decrease in those patients.

Eventually the longer treatment is needed for the normalization of these indexes. However, most likely is the further progress of the chronic inflammation that is the main reason of PG destruction and of enzymatic insufficiency development. In severe cases endocrine cells lesion association could follow the PG destruction that results in diabetes manifestation. According to the examination results in patients with the chronic pancreatitis the hyperglycemia and glucosuria are detected in three of them, that didn't come to norm after the treatment, which testifies most likely the probability of diabetes development in these patients.

**Conclusions.** The laboratory evaluation results in patients with chronic pancreatitis have shown that the clinical picture correlates with laboratory studies data, and the more severe disruptions caused by chronic inflammation process are proved by insufficient normalization of clinical and biochemical indexes. The results of the present work show the importance of laboratory monitoring of patients` condition with the disease of pancreas gland as it allows to increase the treatment measures effect.