is no epidemiological data on the prevalence NAFLD even according to ultrasound studies. At the same time, research in other countries, for example the study on the prevalence of NAFLD in Almaty, showed that 29% of patients who regularly visit physicians clinics suffer NAFLD. The results of this pilot study highlighted the need for research in Kyrgyzstan.

The results of survey aimed at the detection of Non-Alcoholic Fatty Liver Disease (NAFLD) in medical patients of municipal clinics of the Bishkek.

In total 359 patients over 18 years old and less than 80 years old were examined from June 2010 till end of October 2010.

At the initial stage of the screening the persons with the established risk factors of NAFLD were singled out on the basis of clinical and medical history data and physical examination. The further targeted examination if this group using biochemical, serological and instrumental methods (liver US) allowed confirming NAFLD in 2 patients: in 131 men (36.5%) and in 228 women (63.5%) aged 52±14. Among patients attending Bishkek physicians municipal polyclinics about various diseases, NAFLD was detected in 38% of cases.

In patients with confirmed NAFLD steatosis was found in 75.5% of cases, steatohepatitis in 19.5% and hepatic cirrhosis in 4% of cases. A sharp increase in the incidence of these diseases starts in the age group of 30–39 and the incidence continues to rise steadily up to the age of 60.

The most frequently detected known risk factors were overweight and obesity.

139. Assessment of the liver state in patients with chronic pancreatitis associated with metabolic syndrome

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**Background.** Chronic pancreatitis (CP) occupies one of the leading positions in the pathology of the digestive system. The significant prevalence of CP is determined by the central role of the pancreas in the organization of caviary digestion. A lesion in the exocrine organ of the pancreas in CP patients invariably involves the endocrine portion in the pathological process with the development of insulin resistance (IR) and diabetes mellitus.

The great advantages have been achieved in the study of pathogenesis of isolated chronic pancreatitis and metabolic syndrome as well as insulin resistance, and CP and MS combination results in many white areas being still remained unknown, the solution of which is important for the timely diagnosis and treatment of this condition.

The purpose of our investigation was to study some features of the metabolic disorders observed in the livers of patients with CP combined with MS.

**Material and methods.** The main clinical group included 69 patients, of them 14 men and 55 women, mean age (52.2±2.6) years, all of whom were referred for inpatient treatment with diagnosis of chronic pancreatitis. The control group included 14 healthy subjects without any objective manifestations of chronic pancreatitis and metabolic syndrome.

Verification of the CP was conducted based on clinical, laboratory and instrumental investigations, taking into account the recommendations of the European Pancreatic Club.

Associated form of Chronic pancreatitis with Metabolic syndrome was diagnosed according to the criteria offered by experts of the USA national educational program on cholesterol (2004).

HOMA-IR (Fasting insulin [μIU/ml] x fasting blood glucose [mmol/l]) /22.5.

All laboratory examinations were performed with use of the current highly effective methods and kits of the famous firms, such as «DRG-Diagnostics» and «DBS BioVendor».

**Results.** The results revealed significant changes in the blood serum parameters in the patients with chronic pancreatitis associated with metabolic syndrome. The changes detected in the blood lipid spectrum were accompanied by increased free fat acid (FFA) levels on an average of three times and hyperinsulinemia. The effect of lipotoxicity accompanied by hyperinsulinemia and hyperglycemia was associated with the dynamics of the increase in the blood leptin levels. According to many authors leptin stimulates the proliferation of the β-cells of the islets of Langerhans by phosphorylation of the mitogen-activated protein kinase and correlates with body mass index.

Disorders of carbohydrate and lipid profiles in patients with chronic pancreatitis and metabolic syndrome were associated with the activation of lipolysis. Obviously, an impairment of a receptor-mediated transport of FFAs against the background of hyperinsulinemia leads to structural changes in the cell membrane which, naturally, launches a vicious cycle of metabolic changes in the body cells.

The complex of systemic metabolic impairments discussed above occurs in the liver hepatocytes. Under these conditions glucose oxidation in the mitochondria is disturbed due to the membrane unresponsiveness to the hormone resulting in pathological insulin resistance syndrome.

The fructose-1,6-diphosphatase aldolase participates in the transformation of fructose-1,6-biphosphate into fructose-6-phosphate and then sep by step into glucose, which is one of the clear markers of gluconeogenesis. As evident from the data, the serum activity of fructose-1,6-biphosphate aldolase id patients with CP and MS exceeded the reference level by 4.5 times (p<0.05). The fructose 1-phosphate aldolase activity involved in the fructose metabolism exceeded the control level by 12 times (p<0.05) and was associated with excessive FFA production.

**Conclusions.** Thus, in patients with chronic pancreatitis and metabolic syndrome the irregularities in the glucose-insulin homeostasis are evident, not only due to hormonal disorders, but also due to impairment cellular metabolism against the backdrop of excessive FFA levels.