

CHRONOPHATOLOGY OF HEPATOPROTECTIVE AND CHOLERETIC MEDICINES

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The liver and biliary tract pathology takes the leading place among the gastro intestinal tract (GIT) diseases. For the last 20 years there is an increase in the incidence of hepatobiliary system disease, and the cases of death from this disease are doubled. According to the World Health Organization statistics the number of patients suffering from various disorders of the GIT is over 2 billion people. In Ukraine, the prevalence of chronic hepatitis and liver cirrhosis increased at least 2.5 times over the past 20 years.

The pharmaceutical market counts 91 brand name medicines for the liver and biliary tract diseases treatment. There is a huge amount of medicines, but the problem of increasing incidence of hepatobiliary system disorder is not solved.

A very important component of effective therapy for any disease is to mention individual chronophysiological and chronopathological characteristics of the organism. The liver activity depends on many factors including chronotype of the patient, his chronosensitivity to medicines, foods and hormonal status.

Back in 1928, Forhenom discovered dependence between the rhythm of bile secretion and accumulation of glucose in the liver relied on the circadian rhythms during a day. The experimental study of mass liver changes, glutathione, glycogen and nucleotides accumulation in hepatocytes, the activity of some microsomal enzymes in animals depending on their day-night life style was shown in the literature. The dependence between the volume of bile and cholesterol-bilirubin content in it at different times of day and seasons was carried out. The maximal filling of the gall bladder is between 6 and 9 o'clock in the morning, and then gradually decreases and reaches its minimum in 21.00. After 9 p.m. the cycle recovers and undergoes a gradual increase in the volume of bile.

The data about the liver and gall bladder cycle activity are very important for rational selection of chronohepatoprotective schemes as the activity of enzyme systems of hepatocytes influences the metabolic rate of drugs in a certain period of time, and accordingly increase their efficiency by 30-50 % and to decrease their toxicity.

Thus, in order to ensure effective and safe treatment of liver and biliary tract diseases should be considered chrohobiologic rhythms of each patient, including their chronsensitivity to hepatoprotectors and choleretic medicines.