

CLINICAL PHARMACOLOGY OF HEPATOPROTECTORS

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Annotation. This article is about special place in the treatment of hepatobiliary pathology is occupied by drugs belonging to the group of hepatoprotectors. This is a group of drugs of different origin, the action of which aimed at restoring homeostasis in hepatocytes, which contributes to the resistance of the organ to the influence of pathogens. Increase the resistance of the organ to the influence of pathogenic factors, normalization of functional activity and stimulation of reparative and repair activity, stimulation of reparative and regenerative processes in the liver. Due to these effects, hepatoprotectors used in liver diseases, pathology of internal organs complicated with liver damage, as well as a method of medical cover for the use of drugs affecting the liver. The review presents the classification, mechanism.

Of hepatoprotectors, peculiarities of clinical pharmacology of preparations of plant and animal origin, drugs containing essential phospholipids and other groups. The issues of drug safety in treatment with hepatoprotectors are also considered.

Key words: hepatoprotectors, pharmacological properties, indications, undesirable drug reactions, drug interactions.

Introduction. Preparations of plant origin most often contain in their composition-standardized extract of flavonoids milk thistle, the main component of which is silymarin. Silymarin consists of chemically related substances: silibinin, isosilibinin A and B, silicristin, silidianin, isosilicristin and taxifolin. Silibinin considered the main pharmacologically active substance. All isomers have a phenylchromanone structure (flavolignans). In hepatocytes, silymarin stimulates the synthesis of proteins and phospholipids, which leads to stabilization of cell membranes and reduce their permeability, reducing cytolytic syndrome.

Comparison of silymarin isomers in their pharmaceutical equivalence led to the allocation of legalone as a reference silymarin-containing drug. Possibilities of diagnostics and specific prophylaxis. The most difficult and far issue of therapy of patients with acute and chronic viral hepatitis (VH) remains the most difficult and far from being solved. Hepatitis (VH), steatohepatitis of alcoholic and non-alcoholic etiology. In accordance with modern principles of treatment of liver diseases, the program of complex therapy of such pathology includes two main directions. The first represents etiotropic therapy aimed at suppressing the pathologic pathogen, its elimination and sanitation of the body. In clinical practice etiotropic therapy used only in viral hepatitis with parenteral mechanism of infection.

Preparations of plant origin have a membrane-stabilizing effect; protect liver cells from the penetration of toxins. Liver cells from penetration of toxins into them, and due to their phenolic structure, they are able to bind free radicals and exhibit antioxidant properties. Preparations of this group also stimulate the antioxidant defense system by increasing the

content of reduced glutathione in the liver, as well as protein synthesis, accelerate regeneration of damaged hepatocytes.

Their antifibrotic effect has been experimentally established, which is believed to be due to an increase in the clearance of free radicals and direct inhibition of collagen synthesis. Indications. Predominantly in toxic lesions liver, prescribed in chronic alcoholic and drug-induced hepatitis and cirrhosis. The possibility of antiviral action in chronic viral hepatitis C manifested only with intravenous use of the drug. Use with caution in patients with cholestasis, as it is reported that under the influence of milk thistle preparations cholestasis may increase. Similar in properties is the drug hipbone, which is composed of milk thistle extracts, which consists of milk thistle extracts and drugstore melon. The latter has antispasmodic effect. The drug used in chronic hepatitis and cirrhosis. Liver fatty degeneration of the organ, toxic-metabolic lesions of the organ, including xenobiotics. Artichoke leaf extract (chofitol) due to the presence of phenolic acids and flavonoids in the drug. A similar hepatoprotective effect observed when administering selenium containing compounds, thiobarbituric acid derivatives. In their chemical structure, phospholipids are similar to triglycerides, but in their molecule, one of the fatty acids is replaced by a phosphoric acid residue. The main phospholipids are lecithin (phosphatidylcholine), phosphatidylethanolamine, phosphatide inositol, phosphacetylserine, phosphatide acid. Phospholipid preparations, being a constituent part of cytoplasmic membranes of the

Cell's membranes, contribute to the restoration of the structure, replace defects of the damaged lipid layer of biological membranes and restore its physicochemical properties.

The most well-known and long-used hepatoprotector is essential, a complex preparation containing diglycerine esters of choline phosphoric acid. It prevents inflammation, necrosis of hepatocytes, decreased mitochondrial and endoplasmic reticulum enzyme activity, reticulum, lysosomes. These drugs stimulate antitoxic function of the liver; prevent inactivation of cytochrome P-450. Essential, unlike other hepatoprotectors to great extent activates reduced glutathione conjugation xenobiotic. The hepatoprotective mechanism of action of this group of drugs determined by stimulation of RNA polymerase activity and ribosomal protein synthesis in hepatocytes, as well as antioxidant effect. This group of compounds used as the most effective hepatoprotectors in clinical practice. The use of medicinal plants with a high content of flavonoids, contributes to the inhibition of LPO processes, prevents the development of dystrophy, necrosis of hepatocytes, hyperfermentemia and cholestasis. The same group of drugs used as effective choleretic agents with a favorable effect on the functional state of the liver. Another class of biologically active substances with hepatoprotective effect are saponins: derivatives of glycyrrhizic acid, which used in the treatment of chronic hepatitis. Currently used in the treatment of chronic hepatitis (glycyram, glycyrrhizin in the form of aqueous extract from licorice roots, saponin B2)]. There is data on the anti-hepatotoxic effect of various plants – lemongrass Chinese and other representatives of the Magnoliacea family, ginseng preparations, Asian yarrow, celandine, bitter wormwood, mugwort, mugwort mellifera, clover lupine, alfalfa. Many herbal remedies are categorized as hepatoprotectors, although their biologically active substances are not sufficiently studied their biologically active substances.

Phenolic compounds have a pronounced antioxidant effect are universal stabilizers of biological membranes, have a pronounced hepatoprotective, hepatoprotective, hepatoprotective, pronounced hepatoprotective, antispasmodic, anti-inflammatory,

Angioprotective actions. A significant advantage of phenolic BAS over other classes of natural compounds is their low toxicity. Antioxidants of plant origin include food plants: artichoke, radish juice, garlic extract, rice bran, carrot aqueous extract, sunflower seeds, and soybeans. Preparations containing artichoke extract include. Hepar SL, Carminagal, Hevehol. Based on plant phospholipids developed domestic drug comprehensively studied eplir, hepatoprotective agent of phospholipid nature. Phospholipid means of phospholipid nature, obtained from mud, which is a lipid extract containing phospholipids and carotenoids.

In conclusion. Thus, chronic liver diseases of various etiologies diseases of various etiologies (Hepatitis, cirrhosis), cholecystocholangitis and biliary dyskinesia, in the postoperative period of cholecystectomy, prevention of cholelithiasis. In hepatology, phospholipid preparations considered one of the most effective variants of hepatoprotective substances. Complex preparations contribute to a more rational use of herbal. This review of the literature shows that out of the total number of works on creation and application of hepatoprotectors, most of them are devoted to the study of means of plant origin. The reason for this is high harmlessness, expressiveness of action, availability of sources of obtaining, cost-effectiveness. Along with this insufficiently studied the possibility of using means of mineral and animal origin of natural sources (local resorts) as hepatoprotectors. In pathogenetic therapy of chronic liver and gallbladder diseases. The complex of therapeutic and prophylactic treatment is important a complex of therapeutic and prophylactic measures is of importance: diet therapy, regimen of labor and rest, efficiency of medical examination at the outpatient stage, informing the patient about etiopathogenesis of the disease. It is necessary among the means pathogenetic therapy in addition to herbal natural remedies to use other natural factors, such as sanatorium-resort treatment, used among the means of pathogenetic therapy in addition to herbal natural remedies.

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