INFLUENCE OF "PRUNOFIT" – EXTRACT FROM *PRUNUS DOMESTICA* FRUITS CONTAINING FIBERS ON THE EXPRESSION OF CHOLESTASIS SYNDROME

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Introduction. Previous experimental studies proved that the extract containing fiber obtained from the *Prunus domestica* fruits (named "Prunofit") exhibits intensive laxative, moderate hepatoprotective, lipotropic, antioxidant, prebiotic and anti-inflammatory properties.

Aim. Given the presence of the hepatoprotective effect of the Prunofit extract, was appropriate to examine its effect on the intensity of cholestatic syndrome in acute toxic hepatitis.

Materials and methods. Determination of alkaline phosphatase activity was carried out by the kinetic method using test kits from Lachema (Czech Republic). The method is based on determining the rate of accumulation of 4-nitrophenol, which is formed by reaction of alkaline phosphatase with 4-nitrophenyl phosphate.

Results and discussion. When modeling loperamide-induced constipation with combined subacute alcoholic liver damage in the control pathology group, there was a significant increase in alkaline phosphatase (2.6 times) compared with the intact control. It reflects the destructive processes in the liver tissue and biliary tract. Against the background of the introduction of the Prunofit extract at a dose of 200 mg/kg, there was a significant decrease in the activity of alkaline phosphatase by 1.4 times compared with the control pathology. It should be noted that the Prunofit extract tended to decrease the expression of cholestasis syndrome and was more effective than the preparations of the reference group (Silybor, 25 mg/kg + Senadexin, 14 mg/kg). There was a significant decrease in alkaline phosphatase activity by 1.06 times.

Conclusions. An analysis of experimental data showed that the Prunofit extract at a dose of 200 mg/kg exerts an inhibitory effect on the destructive consequences of toxic liver damage, reducing the expression of cholestasis syndrome, and is not inferior to the effect of the reference drugs.

ANTIOXIDANT EFFECT OF BEARBERRY LEAVES EXTRACT IN RATS UNDER EXTERIMENTAL INSULIN RESISTANCE

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Introduction. Natural antioxidants contain a high concentration of phenolic compounds and normally occur in fruits, vegetables, and herbs. Bearberry (Arctostaphylos uva-ursi L. Sprengel) is a ubiquitous procumbent evergreen shrub located throughout North America, Asia, and Europe. Well-known anti-inflammatory and diuretic properties of polyphenolic Bearberry leaf extracts. The antioxidant properties of the extract are not well understood.

Aim. The antioxidant activity of bearberry leaf extract (BPE) was investigated in rats under experimental insulin resistance induced by high fructose diet.

Materials and methods. Our investigations were conducted on inbred albino male rats weighing 190±15 g. Insulin resistance was induced by keeping animals on a high fructose diet: every day they received a 20% fructose solution instead of water for 7 weeks. Insulin resistance development was controlled by measuring of blood glucose and insulin levels in experimental animals. From the 5th week animals with IR were administrated intragastrically by BPE in dose in dose 100 mg/kg body weight during 14 days. Arphasetin was used as a comparison drug. It was administrated in recommended dose recalculated for rats (18 ml/kg). Blood was collected to get serum. TBARS, conjugated diens and superoxide dismutase (SOD) and catalase (CAT) activity were measured spectrophotometrically. The data were processed statistically.

Results and discussion. Keeping animals on a high-fructose diet was accompanied by oxidative stress and lipid peroxidation development. TBARS and conjugated diens levels were 68 and 98% higher than in control pathology. SOD and CAT activity were significantly decrease also. BPE administration to experimental animals was accompanied by a significant increase TBARS and conjugated diens levels up to normal. The obtained result was comparable with the effect of the comparison drug Arfazetin.