



Experimental evaluation of the effect of pollen extract on the course of paracetamol poisoning

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Studies were performed on 670 male mice of Swiss strain. Cernilton (mixture of preparation Cernitin™ T-60-100 mg/kg and Cernitin™ GBX--20 mg/kg emulsified by using Imwitor 370) was intraperitoneally administered in a volume of 30 ml/kg of body mass. LD50 of paracetamol was fixed after intraperitoneal administration. Cernilton was given 1 h before or 1 h after paracetamol in a dose LD100 and LD50, thereafter the survival time and the number of deceased animals were determined. The effect of Cernilton preparation on the lesion of the liver induced by paracetamol was studied in 5 groups with 10 mice each: group 1--control; group 2--paracetamol; group 3--Cernilton, after 1 h paracetamol; group 4--paracetamol; after 1 h Cernilton; group 5--Cernilton. Paracetamol was injected in the following manner: a--300 mg/kg in a single dose, estimation after 3 h, b--300 mg/kg in single dose--section after 24 h, c--230 mg/kg/24 h single dose--estimation after 24 h, d--230 mg/kg/24 h four times--section after 24 h, e--230 mg/kg/24 h--seven times--estimation after 24 h. The degree of hepatic lesion was evaluated on the basis of the activity of alanine and asparagine aminotransferase as well as alkaline phosphatase, total bilirubin concentration in serum, the content of reduced glutathione and cytochrome P-450 in the liver as well as histological and histochemical examinations (glycogen, lipids) of the liver. It has been disclosed that Cernilton increases the survival rate of animals and decreases the hepatic lesion in the course of acute paracetamol intoxication, Cernilton is the factor that effectively normalizes the biochemical and morphological indices of hepatic lesions having been caused by repeated use of toxic paracetamol dose. The therapeutic action of pollen extracts is more effective than prophylactic one. The role of glutathione is significant in the mechanism of protective activity of the pollen extract.

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