Effect of Pollen Extracts (Cernitin™ preparation) on Selected Biochemical Parameters of Liver in the Course of Chronic Ammonium Fluoride Poisoning in Rats

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The aim of the paper has been the experimental evaluation of protracted exposure to ammonium-fluoride vapors exerted on selected biochemical parameters in serum as well as microsomal fraction of the liver in animals. An attempt was made to ameliorate eventual changes by using Cernitin™ preparation. The experiment was performed on male rats of Wistar strain. The rats were exposed to NH4F in a toxicological chamber with controlled parameters. Cernitin™ was added to standard diet and given to animals in the form of balls. The studies were carried out after 3 and 6 month-long exposure. The range of the performed studies covered: activity of enzymes (AspAT, AIAT, AP, ChE) and content of bilirubin as well as lipids were studied in the blood serum. Content of proteins, cholesterol and phospholipids was investigated in the liver homogenate. It has been shown that chronic exposure to NH4F vapors causes a rise in the activity of studied aminotransferases and alkaline phosphatase, and a decreases in activity of cholinesterase. The changes in activity were accompanied by an increase in the content of lipids. Prophylactic application of Cernitin™ preparation normalizes the disorder involving the studied enzymatic and lipid parameters.

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