

CLINICAL MANIFESTATIONS AND PATHOMORPHOLOGICAL CHANGES OF SPONTANEOUS POISONING BY DIAZINON IN CHINENSIS PAINTED QUAIL (COTURNIX CHINENSIS)

V. Tumanov

Lviv National University of Veterinary Medicine and Biotechnologies
named after S. Z. Gzhytskyi
50, Pekarska str., Lviv, 79010, Ukraine

Organophosphate pesticides, including diazinon, often used for illegal poisoning wild or domestic birds. For an objective diagnosis in such cases it is necessary to complete pathoanatomical and chemico-toxicological studies. The research was conducted on Chinensis painted quail (*Coturnix chinensis*). The birds were killed as a result of spontaneous poisoning of the diazinon. Sick birds (n = 8) were delivered of the Department of Normal and Pathological Morphology and Forensic Veterinary Medicine of the Stepan Gzhytskyi National University of Veterinary Medicine and Biotechnologies Lviv for the purpose of diagnosis. In the course of the study, clinical manifestation and pathoanatomical changes were studied for diazinon poisoning. The breeding of birds was carried out using the Shores method. The organs were fixed in 10% neutral formalin, 96% ethanols and Carnoy's solution. The histological sections were made using a sown and freezing microtome, stained hematoxylin and eosin, sudan-III and Nissl methods. The histological study of the preparations and their photographing was performed using microcope Leica DM 2500, and camera Leica Leica DFC 450 C., Application Suite Version 4.4.0. Also, a chemico-toxicological study was selected content crop of birds, the liver and kidneys by thin-layer chromatography on a paper with a iodine-permeable reagent (express method) to determine the presence of diazinon.

In the case of spontaneous poisoning of Chinensis painted quail by diazinone develops clinical signs (tremor and paresis of wings, spastic contractions, convulsions, and subsequently paralysis of pelvic floor muscles, uncoordinated movement), indicating a violation of the normal passage of nerve impulses in the central and peripheral nervous system. When conducted pathoanatomical studies revealed pronounced dyscirculatory processes: acute passive hyperemia, stasis, perivascular edema and hemorrhage. Also registered alteration (protein degeneration and necrosis) of hepatocytes, cardiac muscle cells, ephitelial cells of proximal tubules. In the brain recorded pronounced changes of neurons: severe changes in nerve cells, and in some

cases shadow cells were detected. When autopsy selected material for chemical-toxicological research. As a result the research the extract of selected content crop, the liver and kidney of birds by the method of layer chromatography paper manifestation of iodine bismuth quality received positive reaction on the compound diazinon.

Keywords: ORGANOPHOSPHATE PESTICIDES, DIAZINON, CHINENSIS PAINTED QUIL (COTURNIX CHINENSIS), POISONING, ANATOMICAL PATHOLOGY, ACUTE PASSIVE HYPEREMIA, SEVERE NEURONAL CHANGES, NECROSIS.