

Pathology of Experimental Poisoning Induced by Lead Shot Pellets in Mallards

P. Stamberov¹, M. Alexandrov², T. Todorov¹, T. Yankovska³ and E. Taneva¹

¹University of Forestry – Sofia, Faculty of Veterinary Medicine,
1797 Sofia, Bulgaria, 10 Kliment Ohridsky Blvd.

²Institute of Experimental Morphology, Pathology and Anthropology with Museum,
Bulgarian Academy of Sciences, 1113 Sofia, Bulgaria, Acad. G. Bonchev Str., bl. 25

³Central Laboratory for Veterinary Sanitary Expertise and Ecology,
1528 Sofia, Bulgaria, 5 Iskarsko shose Str.

Clinical, radiological, elemental and histopathological analyses were carried out on mallards (*Anas platyrhynchos*) dosed orally with lead shot pellets #3. The clinical signs and pathological changes of mortally poisoned ducks were proportional to the dosage of lead and the length of time the birds were exposed. It was concluded that like the field cases the lead shot poisoned mallards developed severe and fatal ailment, which could be induced even with a single lead pellet in a range of two to five weeks. An important and pathognomonic microscopic finding was the detection of acid-fast intranuclear inclusions within the epithelial cells of the proximal renal tubules of all cases and in the hepatocytes of birds with longer course of intoxication.

Key words: mallard, lead shot, lead poisoning, acid-fast intranuclear inclusions.