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HISTOPATHOLOGICAL CHANGES OF THE KIDNEYS IN T-2 MYCOTOXICOSIS IN BROILERS

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T-2 toxin is a trichothecene mycotoxin produced by some *Fusarium* fungi. Many authors have examined the harmful consequences of dietary T-2 toxin after its prolonged administration, but there are few records of its toxicity after short term administration. Therefore, the aim of this study was to examine the effect of T-2 mycotoxin after short term (3 day) administration on the kidney's morphology in experimentally induced T-2 mycotoxicosis in broilers.

One day-old broilers were divided in two groups, control and experimental group, both given feed and water ad libitum. T-2 mycotoxin was dissolved in water and given to the experimental group with daily oral gavages in doses of 0.250 mg per bird for 3 consecutive days starting from the fourth day of the experiment. Histopathological analyses of the kidneys were made 24 hours after the last application. Kidneys were fixed in buffered 10% formalin, embedded in paraffin and 5µm thick sections were stained with haematoxylin and eosin.

We've registered that the administration of mycotoxin provoked significant decrease of the body weight as well as absolute weight of the kidneys by 27.3% and 19.1% respectively, compared to control group, while there were no significant changes in the relative weight of this organ. Histopatological analyses of the kidneys in experimental group showed thickening of the Bowman's membrane as well as mononuclear cell infiltration in kidney's glomeruli. Also in the cortex, a parenchymatous degeneration of the proximal tubular epithelium was noticed, while in the medullar part of the kidneys, we've evidenced an interstitial nephritis.

From the obtained results it can be concluded that three day application of T-2 mycotoxin provokes only acute histopathological changes in the kidneys, but if the administration of the toxin continues it could rouse necrotic changes in this organ.