

Морфология надпочечника под воздействием фосфора

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Morphology of the adrenal glands under the influence of phosphorus

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The aim of our study was to investigate the structural features of of the adrenal glands of rats under the influence of phosphorus detergents, one of the most common ecoantropogenic factors.

This morphological study performed on Wistar rats that within 30 days exposed Polifos 124 Tm (substance injected with a metal probe into the stomach). Changes were studied on paraffin sections using conventional histological and histochemical methods (hematoksylyn-eozin, pikrofuksyn by Van Hizonu, Feulgen-Rosenbeka reaction, Brush reaction, the Daniels reaction, and lipid staining on frozen sections by Sudan III).

It is established that exposure to phosphate detergents all zones of the cortex, especially the medullar substance show signs of hypertrophy and hyperplasia of even moderate kateholaminsecreted cells.

Along with that there are massive focuses of resorption of cells of medullar substance. The nuclei of the cells of the cortex are light, poor by chromatin. While in the cytoplasm of cells of all three zones of the cortex observed pronounced tendency to reduce of sudan inclusions, especially in fasciculate zone. The cells of medullar substance increased in size, have illuminated nuclei, that poor by chromatin and weak response to DNP. Cytoplasm of cells also enlightened, contains small sudan granules which located diffusely throughout the all cytoplasm. It turns out poorly expressed stratification of layers of medullar substance.

Described changes that associated with a expressed functional tension of cells especially glomerular and fasciculate zones of the cortex and of medullar substance. We found changes in the adrenal glands which can also be an indicator of strengthening of compensatory-adaptive processes in the organ, which is under distress.