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## Cerebellum and spinal cord in the mice of different ages after influence of cuprizone

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In this experimental work aimed at investigation of morphological changes in organs of central nervous system (CNS) of different ages with cuprizone model of demyelination. In the 129/Sv mice at 3-5 and 16-17 months of age, we assessed motor and emotional activity, brain antioxidant enzymes, T-lymphocytes and macrophages. After staining of histological sections of the cerebellum and spinal cord in toluidin blue, we determined the percentage of neurons with unmodified, moderate and severe structural changes. We studied changes of nervous fibers of organs of CNS after used methods of electron microscopy and morphometry. Cuprizone was provided daily for 3 weeks.

Cuprizone decreased the amounts of crossed squares and faecal boluses in the mice of both age groups. In the cuprizone-treated mice of both age groups, the percentage of neurons with severe changes in the cerebellum and spinal cord was increased, being less pronounced in aged mice. In the brain of cuprizone-treated mice of both age groups, the activity of catalase and glutathione peroxidase (GP) inhibits. The percentage of T-lymphocytes and active macrophages was increased in cuprizone-treated mice of both age groups.

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