

## MODULATION OF LIVER ANTIOXIDANT ABILITY UNDER CHRONIC FASCIOLIASIS AND $(Zn_xCu_{1-x})_2(OH)_3Cl$ SUPPLEMENTATION

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The aim of the study was to assess the antioxidant status (vitamin C, E, A, zinc, copper, catalase, superoxide dismutase, glutathione peroxidase and malondialdehyde) in chronic stage of fascioliasis after treatment with Zn-Cu mixed basic salt.

White Wistar rats were infected per os with 25 metacercariae of *Fasciola hepatica*.

Application of  $(Zn_xCu_{1-x})_2(OH)_3Cl$  salt started 6 weeks after the infection and was performed during 10 consecutive days.

During the chronic stage of fascioliasis in the liver, a decrease of concentrations of vitamins C, E, A and of the trace elements Zn and Cu were observed together with a reduction of the Cu,ZnSOD activity and an increase of CAT and GPX activities. MDA concentration was elevated.

Application of  $(Zn_xCu_{1-x})_2(OH)_3Cl$  salt increased the concentrations mainly of vitamin E, but also of vitamin C and of the trace element Zn. On the other hand, only the activity of SOD was enhanced after salt treatment. It seems that antioxidant imbalance was developed in the *Fasciola hepatica* infected liver rats during the chronic fascioliasis and that Zn-Cu salt improved the antioxidant defence abilities.

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