Abstract:

In this study has been investigated the effect of different levels of meloxicam on oxidative stress of common carp over a period of 28 days. Fish were exposed to different concentrations of meloxicam for determine the semi-lethal concentration (LC50) of this drug. Then, based on the LC50 experiment, fish were exposed with four concentrations of meloxicam (0, 0.2, 0.9 and 1.8 mg/l) for 28 days. The activities of antioxidant enzymes catalase (CAT), superoxide dismutase (SOD), glutathione peroxidase (GPX), malondialdehyde (MDA) and liver enzymes (ALT, AST, LDH and ALP) were assessed in the end of trial. The results of Hepatic activity enzymes showed that no significant difference between AST and LDH level in different doses of meloxicam ($P \geq 0.05$), and ALP and ALT enzymes under different doses of meloxicam. So that, the highest ALT in the Third treatment (0.9 mg/l dose) (10.50±2.12 µ/l) and the ALP enzyme in the second treatment (0.2 mg/l dose) (91.00±28.78 µ/l) was recorded. The results showed that there was a significant difference between the levels of CAT, GPX, MDA and SOD at different doses of meloxicam ($P \leq 0.05$). The highest amount of CAT activity enzyme in the fourth treatment (1.8 mg/l) (109.67 ± 5.51 µ/ml); GPX enzyme in the second treatment (0.2 mg/l) (395.33±9.29 µ/ml); MDA activity enzyme in the fourth treatment (1.8 mg/l) (24.03 ±1.60 µmol/l) and SOD activity enzyme in the fourth treatment (1.8 mg/l) (34.23 ± 2.41 µ/l). the results of this study suggested that the increase of antioxidant activity enzymes in Common carp can be effect of meloxicam drug.

Keywords: Meloxicam, Common carp, Hepatic enzymes, Antioxidant enzymes

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Effect of Meloxicam on oxidative stress of *Cyprinus carpio* using of biomarkers

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