

عنوان مقاله:

Evaluation of blood characteristics of grass carp (*Ctenopharyngodon idella*) after exposure to organophosphate, Diazinon

محل انتشار:

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خلاصه مقاله:

The effect of different sublethal concentrations of diazinon at ۱, ۲ and ۴ mg/L on some hematological and biochemical parameters of grass carp (*Ctenopharyngodon idella*) weighing ۸۵۰ ± ۱۵۵ g was studied after ۱, ۷, ۱۵, ۳۰ and ۴۵ days post exposure to the toxicant as a bath for ۱۲ hours at ۱۸-۲۲ C. In one day exposure fish to the toxicant, the values of neutrophils exposed to ۲ and ۴mg/L were significantly higher than control fish, while lymphocyte and monocyte counts in fish exposed to ۲ and ۱mg/L were significantly lower than control one ($P < ۰.۰۵$). Also, no significant differences were found in levels of alanine aminotransferase (ALT), aspartate aminotransferase (AST), alkaline phosphatase (ALP) and lactate dehydrogenase (LDH) among experimental fish and between experimental fish and control one ($p > ۰.۰۵$). Seven day after exposing fish to the toxicant, values of WBC in all experimental fish were significantly higher than control fish, while level of neutrophils in fish exposed to ۱mg/L and values of lymphocytes in fish exposed to ۲ and ۴mg/L were significantly higher and lower than control fish, respectively. Also, values of ALT, AST and ALP in all experimental fish were significantly lower, higher and lower than control fish, respectively ($p < ۰.۰۵$). Fifteen days post-exposing fish to the toxicant, values of MCH, ALT and AST in all experimental fish were significantly lower than control group, while levels of WBC and RBC were significantly higher and lower than control fish, respectively ($p < ۰.۰۵$). Thirty days post-exposing fish to toxicant, the values of neutrophils, WBC and RBC in fish exposed to ۲ mg/L were lower than control fish ($p < ۰.۰۵$). Also, levels of heterocytes and lymphocytes in all experimental fish were significantly higher and lower than control fish, respectively. Also, levels of AST, ALP and LDH in almost all experimental fish were significantly lower than control fish ($p < ۰.۰۵$), while no significant differences was found in the level of AST among experimental fish and between experimental and control fish ($p > ۰.۰۵$). Forty five days post-exposing fish to the toxicant, the values of WBC and heterocytes in all experimental fish were significantly higher than control one, while levels of lymphocytes, ALT and ALP were lower than control fish ($p < ۰.۰۵$). Also, the level of AST in fish exposed to ۴mg/L and level of LDH in fish exposed to ۱ and ۴ mg/L were significantly lower than control (fish ($p < ۰.۰۵$).

کلمات کلیدی:

Diazinon, Grass carp, Haematology, Serum biochemistry

لینک ثابت مقاله در پایگاه سیویلیکا:

