Abstract

Objective. The study aimed to investigate the effectiveness of glyceryl guaiacolate ether (GGE) and compare the times of induction, recovery, hematological changes, total protein and glycaemia among anesthetics in Nile tilapia, Oreochromis niloticus. Materials and methods. A total of 60 tilapia distributed in 3 aquariums (N=20) were used, which formed the group benzocaine (100 mg/L), eugenol (50 mg/L) and guaiacol glyceryl ether (9.000 mg/L). After the induction of anesthesia fish blood samples were collected to determine the complete hemogram and glycemia. Then the animals were placed in aquariums with running water for assessing the anesthesia recovery. Results. It was verified that GGE showed longer induction and recovery times as well a significant increase (p<0.05) of glycemia, when compared with the other groups (p<0.05). The concentration of total protein did not differ between groups (p>0.05). An increase in the number of monocytes in the group treated with benzocaine (p <0.05) was observed in the analysis of the hematological parameters with no difference between groups for other variables. Conclusions. Eugenol and benzocaine allow rapid induction and recovery in Nile tilapia, without evidence of stress during handling and GGE showed high induction and recovery times, being inadequate for anesthetic use in Nile tilapia.

Keywords

Anesthesia, hemogram, teleosts, Oreochromis niloticus (Source: CAB).