Effects of Leads Pb on Gill Microanatomy Structure of Hard-Lipped Barb Fish Osteochilus hasselti

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Abstract	As a harmful and non-degradable heavy metal, lead (Pb) is also toxic to aquatic organisms. This metal damages tissue and sensitive organs such as gills. A study dealt with the effect of Pb concentration and contact time on gill microanatomy structure of hard-lipped barb fish (Osteochilus hasselti). An experimental method was applied during study with Completely Randomized Design to test 4 concentrations of Pb, i.e 0 mg/L (P0), 8.93 mg/L (P1), 17.86 mg/L (P2) and 26.80 mg/L (P3), in quadruplicates. The gills were removed, and fixed in Bouin solution, from fish sampled twice in a month. The gills were subsequently processed in classical histology to obtain gill microanatomy structure damage data. The data were established from Pantung method, which were then analyzed with One-way ANOVA. The results showed that Pb damaged gills, mildly to severely, in form of oedema, hyperplatia, lamella fusions, and necrosis. Concentration levels and contact time affected microanatomy structure damage of gills. The increasing concentration levels and length of contact time did not gravely increase in damage.
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