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## Lead induced histopathological alterations in the gills of *Labeo rohita* (Hamilton- Buchanan)

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Lead is one of the most hazardous heavy metal which is entering into the aquatic ecosystems through various anthropogenic activities. It causes many deleterious effects on aquatic organisms as well as human beings. To know more about the toxicity of Lead, the stock solution of Lead Nitrate was prepared and the toxicity test was conducted on the healthy fingerlings of *Labeo rohita*. The fingerlings of  $10 \pm 1$  cm size and  $10 \pm 2$  g in weight were brought to the laboratory and acclimatized in a dechlorinated tap water for 15 days. The water was changed after every 48 hours and the fishes were fed with pelleted feed. The 96 hr  $LC_{50}$  of Lead Nitrate calculated was 34.20 mg/l. Four sublethal concentrations of lead nitrate were taken on the basis of  $1/3^{\text{rd}}$ ,  $1/5^{\text{th}}$ ,  $1/7^{\text{th}}$  and  $1/10^{\text{th}}$  of  $LC_{50}$  value i.e., 11.4 mg/l, 6.84 mg/l, 4.88 mg/l and 3.42 mg/l. One group was kept as a control in which no solution was added. One fingerling from each tank was sacrificed after 15, 30, 45 and 60 days of exposure and dissected to remove the gill tissues. The gills were washed and fixed in 10% formalin and were processed for section cutting and staining. The slides were observed under light microscope and photomicrographs were taken. The histopathological changes were observed and it was found that the damage increases with the increase in the dose of lead nitrate and the number of days of exposure to it.

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