

P151. HISTOPATHOLOGICAL EFFECTS OF THIOUREA DIOXIDE ON INTESTINE TISSUE OF ZEBRAFISH (*Danio rerio*)

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Investigation the histopathological effects of thiourea dioxide on intestine tissue of zebrafish were aimed. Thioureadioxide is an organosulfur compound which is a strong reducing agent. It is generally used as decolorisation agent, bleach in textile industry. In the other industrial fields such as leather processing, photographic, paper, pulp and board industry it has a wide range of use. Industrial waste products have been contaminated aquatic environment day after day.

After one-week adaptation period zebrafish divided into three group (n=10) as one control and 2 experimental groups (3mM, 4.5mM). For investigating the effects of thiourea dioxide, intestine tissues were dissected after 5 day of the exposure. Tissues were fixed with 10% neutral buffered formalin and dehydration were carried out in an ascending series of ethanol. Tissues were cleared in xylene, embedded in paraffin wax and cut into 5 µm sections on a microtome. The sections were stained with hematoxylin (H&E). Results were evaluated with light microscope.

In control group normal intestine histology have been observed. In 3 mM thiourea dioxide exposed group, hypertrophy and edema at muscularis externa, degeneration and necrosis at villi structure, deterioration and vacuolization at lamina propria and increase in the number of goblet cells were observed. In 4.5 mM thiourea dioxide exposed group, severe edema and hemorrhage in muscularis externa, degeneration at villi structure and vacuolization at mucosa layer were monitored.

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