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P72. HISTOPATHOLOGICAL EFFECTS OF (4S)-2-(4-HYDROXY-3-METHOXYPHENYL) THIAZOLIDINE-4-CARBOXYLIC ACID ON ZEBRAFISH *(Danio rerio)* HEART TISSUE

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Examination the histopathological effects of (4s)-2-(4-hydroxy-3-methoxyphenyl) thiazolidine-4-carboxylic acid on heart tissue of zebrafish were aimed.

Introduction: (4S)-2-(4-hydroxy-3-methoxyphenyl) thiazolidine-4-carboxylic acid is new synthesized substance which obtained from cysteine and valine. Because of thiazolidine derivates have important biological responses scientist work intensively on these compounds recent years. It is obvious that thiazolidine contained compounds will be used in future in the pharmaceutical industry to treat important diseases.

After one-week adaptation period zebrafish divided into four group (n=10) as one control and 3 experimental groups (0,2 mM, 0,4 mM, 0,6 mM). For investigating the effects of thiazolidine, heart 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. After 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) and PAS. Results were evaluated with light microscope.

In control group normal heart histology was observed. Bulb arteriosus, ventriculus, muscle cell and endocardial cell were monitored clearly. In 0,2 mM exposure group, degenerated muscle cells were detected. Hemorrhage at ventriculus, hyperplasia, vacuolization and pleomorphic case at muscle cells, degeneration at pericardium were observed. In 0,4 mM exposure group, hyperplasia at atrium endothelial cells, vacuolization and degeneration at muscle cells were detected. In 0,6 mM exposure group, leukocyte infiltration and pleomorphic case at ventriculus, degeneration and vacuolization at pericardial cells, hyperplasia at bulbus arteriosus were monitored.

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