food (Sera-San). The water temperature was maintained at 27 ± 0.3°C and the photoperiod was set at 14 L/10D. Experimental animals were divided randomly into one control and three test groups, each containing five fishes. Test groups were exposed to 1, 1.5, 3 mg/L of dicofol for 96 hours. After anaesthetized with MS222, all fishes were sacrificed, the tissues were dissected and fixed in Bouin’s, Zenker and formaline solution at room temperature for 24-48 hours. Tissue samples were embedded into paraffin and serial sections (5 µm) were stained with hematoxylin-eosin, Trichrom-PAS alcian blue and other histochemical staining procedures, mounted and examined with light microscope.

**Results:** When compared with controls, thyroidal follicles were diminished and decreased in number. Epithelial cells were strikingly affected and deformed, colloidal fluid were become slightly stained.

**Conclusion:** Our data indicate that thyroid follicles of zebrafish were considerably affected from dicofol exposition.

**Key Words:** Dicofol, pesticide, *Danio rerio*, thyroid gland, histopathology

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**Genotoxicity Evaluation of Parathion-Methyl Using the Micronucleus Test By Acridine Orange Fluorescent Staining**

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**Objectives:** It was aimed to evaluate the genotoxic potential of parathion-methyl, an organophosphorous pesticide, by using the fish micronucleus test.

**Materials and Methods:** Twenty adult zebrafish (*Danio rerio*) were purchased from commercial dealers and acclimated in 20L aquaria for two weeks under natural photoperiod. Fishes were fed once daily with commercial fish food (Sera-San). The water temperature was maintained at 27±0.3°C. The fish were randomly divided into four experimental and one control groups. Experimental fish was exposed to different concentrations (1, 3, 5 mg/L) of parathion-methyl for 96 h. Cyclophosphamide (4mg/L) was used for positive control. After anaesthetized, peripheral blood samples were collected from all of the specimens by tail puncture using heparinized syringes, and stained with acridine orange (AO). According to their more sensitivity to AO, newly formed, immature erythrocytes (PCEs) were easily identified from mature erythrocytes (NCEs). To determine the frequency of micronuclei, PCEs were scored under 1000X magnification. The ratio of PCEs/NCEs were also calculated, analysed and compared with controls.

**Results:** In parallel with increased concentrations of parathion-methyl, the micronucleated PCEs were increased in number. while a decline in the ratio of the PCEs/NCEs was recorded.

**Conclusion:** The results revealed that parathion-methyl has a short-time genotoxic (and cytotoxic) effects on zebrafish.

**Key Words:** Parathion-methyl, *Danio rerio*, micronucleus test, acridine orange, genotoxicity.