

Histopathology of Liver in *Anabas testudineus* After Exposure to Sublethal Concentrations of Chlorpyrifos

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Aim of the study: The present study was undertaken to assess the toxicity of sublethal concentrations (0.125, 0.250 and 0.375mgL⁻¹) of chlorpyrifos (an organophosphate pesticide) in the liver of *Anabas testudineus* for 7, 14 and 21 days.

Material and Methods: At 7th, 14th and 21st days liver tissues were removed and dropped in Bouin's fluid. After fixation for 24-30 hours, the liver samples were dehydrated with increasing concentrations of ethanol, transparented in xylene, embedded in paraffin. Sections of 5 mm were prepared from paraffin blocks by using a rotary microtome. These sections were then stained with hematoxylin-eosine.

Results: The histopathological changes in the liver were observed using a light microscope. On the 7th day, dilatation of sinusoids and granular degeneration were observed at 0.125mgL⁻¹, at 0.250mgL⁻¹ and 0.375mgL⁻¹ concentrations hypertrophy of hepatocytes, congestion, granular degeneration were diagnosed in the liver. On the 14th day, the determination of granular degeneration, hypertrophy of hepatocytes, congestion at 0.125mgL⁻¹ and 0.250 mgL⁻¹ concentrations, vacuolar degeneration, granular degeneration, hypertrophy of hepatocytes at 0.375mgL⁻¹ concentration were recorded. On 21st day and at all concentrations, congestion, pycnotic nucleus, granular degeneration, hypertrophy of hepatocytes were observed. On 21st day, at 0.250mgL⁻¹ and 0.375mgL⁻¹ concentrations, focal necrosis were also observed.

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