

Histopathological Alterations in Liver of Mice Exposed to Different Doses of Diclofenac Sodium

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Abstract : Diclofenac sodium, a member of the acetic acid family of non-steroidal anti-inflammatory drugs, is used to retard inflammation, arthritis pain and ankylosing spondylitis. The drug is known to cause severe injury in different tissues due to formation of reactive oxygen species. The present study is focused on the effect of different doses of diclofenac (4 mg/kg/body weight and 14 mg/kg/body weight) on histoarchitecture of the liver from 7-28 days of the investigation. Diclofenac administration resulted in distorted hepatic degeneration and formation of wide areas in the form of sinusoidal gaps. Hepatic fibrosis noticed in different stages of investigation could be attributed to chronic inflammation and reactive oxygen species which results in deposition of extracellular matrix proteins. The abrupt degenerative changes observed during later stages of the experiment showed maximum damage to the liver, and there was enlargement of sinusoidal gaps accompanied by maximum necrosis in the tissues.

Keywords : arthritis, diclofenac, histoarchitecture, sinusoidal

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