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Developmental toxic effects in suckling pups of rats from dams treated with diclofenac

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Abstract

The aim of the present study was to assess developmental toxic effects in suckling pups of rats from dams treated with diclofenac (0.5, 2.5, 5, 15, 30, 60 mg/kg, i.m.) given once daily for 10 consecutive days (first nursing period). Exposure of suckling offspring to diclofenac through the milk caused severe toxic effects in pups which appeared as high mortality rate in pups from dams treated with diclofenac at (15, 30, 60 mg/kg) manifested by sharply reduced in the percentage of survival of the pups to weaning to (0%). In addition, the pups from dams treated with diclofenac (2.5 mg/kg) demonstrated retardation in somatic growth which appeared as significantly decreased body weight rate and index of development accompanied by a significantly increased in the liver / body weight ratio of pups. In conclusion, the results suggest that diclofenac induced developmental toxic effects in suckling pups of rats exposed to its through the milk.

Available online at <http://www.vetmedmosul.org/ijvs>

(Gyps vulture)

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: .() (- -) (Hepatotoxicity)
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(25mg/ml, Hemofarm, A.D.Serbia)

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(Cervical dislocation)
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Parametric

Two way analysis of variance

The least significant

() difference\L.S.D

() Chi-square test

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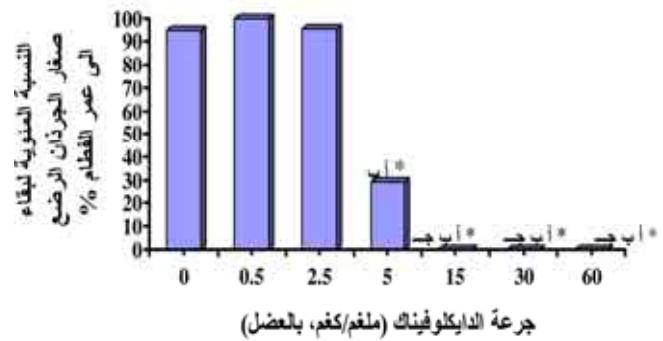
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(Gyps vulture)
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cyclooxygenase-2 (COX-2)
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(Hepatotoxicity)

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(ATP)

(n,5-dihydroxydiclofenac)
direct cytotoxicity.)
(Mitochondrial permeability transition (MPT)
Generation)
(of reactive oxygen species
(ATP))

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