

Paper No. (3)

**HISTOPATHOLOGICAL OBSERVATIONS AND BIOCHEMICAL
CHANGES OF RATS WITH DINICONAZOLE'S HEPATOTOXICITY**

Article: Research Journal of Pharmaceutical, Biological and Chemical Sciences

(2015): 6(2), Page No. 589-596

Authors: Attalla Farag, El-kott and Ahmad A. Kandeel

Abstract

Diniconazole is one of azole based fungicides used in agriculture and as medicinal drug. This type has been shown to be hepatotoxic. The particular mode of toxic action for these compounds is not known; however it has been proposed that diniconazole-induced rat hepatotoxicity arise through the specific mechanism of increased liver functions (ALT, AST, ALP & T. bilirubin). The study was designed to identify commonalities of effects across the different diniconazole and to determine unique features of the tissue responses that suggest a toxicity pathway and a mode of action for the observed liver response for diniconazole. Male rats were treated with diniconazole for 4 weeks. The rats were tested for liver enzymes, cholesterol, triglyceride, oxidative stress, anti-oxidants and histopathology. Livers from all diniconazole treated rats had highly significant in ALT, AST, ALP, T.bilirubin, cholesterol, triglycerides and MDA. The decrease significant was shown in hepatic and serum anti-oxidants (SOD & CAT). The diniconazole administration caused histopathological changes in the liver such as severe centrilobular necrosis, hepatocyte ballooning, and infiltration of inflammatory cells, hepatocytes vacuolization and vascular congestion. Despite the importance of diniconazole as an anti-fungal, but it causes serious damage to the liver.

Keywords: Diniconazole, hepatotoxicity, oxidative stress, anti-oxidants, Oil Red O.

عميد الكلية

أ.د. / عرفه صبري جمعه

رئيس مجلس القسم

أ.د. / ايهاب معاذ ابو زيد