# Light and electron microscope study of hepatocytes in adult albino rats given lamisil terbinafin

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This work was done to study the effect of terbinafine as a newantifungal drug on the livers of adult albino rats.Forty eight adult male albino rats weighing 180-200 gms were used.They were divided into five groups, as follows :Group I:8 rats were used as controls for each experimental bJfOUP andreceived only distilled water by oral tube., ,Group II :10 rats, each received 5mg/kg body weight of terbinafine daily by.'oral tube for two weeks.Group III:10 rats, each rat received Smg/kgbody weight ofterbinafine dailyby oral tube for six weeks.Group IV:10 rats, each rat received Smg/kg body weight terbinafine daily byoral tube for twelve weeks.The lipid DROPlets were increased gradualy with increasing period ofterbinafine administration.The lysosomes were proliferated in all treated groups. Theperoxisomes were proliferated in groups III and IV.The nuclei showed fragmentation of their nucleali especially IIIgroups III and IV.Areas of hyDROPic degeneration were seen in some hepatocytes inall treated groups. ,,Signs of cholestasis were obvious only in group IV in the form ofdilated bile canaliculi and pericanalicular biliary deposits. Some of theblood sinusoids showed infiltration with lymphocytes, polymorplullIclearleucocytes and plasma cells in groups III and IV. Also some of them weresurrounded by collagen fibrils in group IV. Hypertrophy of endothelial andkupffer cells were seen in all treated groups.All prevIOus light and electron microscopic changes disappearedand livers returned to the normal picture after one month from drugwithdrawal.from the present study, it could be concluded that the toxic effectstherapeutic doses of terbinafine for prolonged periods had toxic effects onthe livers or rats and were reversible after drug withdrawal.