

# SUMMARY AND CONCLUSION

This work was done to study the effect of terbinafine as a new antifungal 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 group and received 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 5mg/kg body weight of terbinafine daily by oral tube for six weeks.

## **Group IV :**

10 rats, each rat received 5mg/kg body weight terbinafine daily by oral tube for twelve weeks.

The lipid droplets were increased gradually with increasing period of terbinafine administration.

The lysosomes were proliferated in all treated groups. The peroxisomes were proliferated in groups III and IV.

The nuclei showed fragmentation of their nucleoli especially in groups III and IV.

Areas of hydropic degeneration were seen in some hepatocytes in all treated groups.

Signs of cholestasis were obvious only in group IV in the form of dilated bile canaliculi and pericanalicular biliary deposits. Some of the blood sinusoids showed infiltration with lymphocytes, polymorphnuclear leucocytes and plasma cells in groups III and IV. Also some of them were surrounded by collagen fibrils in group IV. Hypertrophy of endothelial and kupffer cells were seen in all treated groups.

All previous light and electron microscopic changes disappeared and livers returned to the normal picture after one month from drug withdrawal.

From the present study, it could be concluded that the toxic effects therapeutic doses of terbinafine for prolonged periods had toxic effects on the livers of rats and were reversible after drug withdrawal.