

HEPATOGENIC EFFECT OF OPTILIV ON ESTROGEN INDUCED LIVER DAMAGE IN FEMALE ALBINO RAT

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Abstract: The present study was taken to evaluate the hepatogenic effect of OptiLiv (a polyherbal formulation) on estrogen induced liver damage in female albino rat. The rats of groups 2 and 3 were administered with ethinyl oestradiol (EO, a semi-synthetic estrogen) @ 500 µg/kg body weight, orally, weekly for 8 weeks. The rats of group 1 were given saline to serve as normal. From the 9th week, the rats of group 3 were administered with OptiLiv @ 100 mg/kg, orally, daily for 3 weeks; while the rats of group 2 were kept without treatment of OptiLiv for 3 weeks after EO administration. The rats were sacrificed after the experimental periods, and the histopathological study of livers was performed. On the 12th week, the hepatic tissues of group 2 revealed congestion, cellular swelling and focal areas of hydropic changes (vacuolization). The blood vessels, including central veins were also congested. At places, the sinusoids were dilated. Hepatocytes showed nuclear granularity of cytoplasm, indicating the degenerative changes in between the hepatic lobules. However, the hepatic tissues of group 3 showed very mild changes, and regeneration and normalization of many hepatocytes were observed. The results suggest that estrogen (EO) caused the liver damage, which was subsided and repaired to a great extent by OptiLiv.

Keywords: Ethinyl oestradiol (EO, estrogen), Liver damage, OptiLiv, Hepatogenic effect, Female Rat.

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