

Thesis Title Effect of Praziquantel on the Structure
 of Liver and Small Intestine in Mice
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ABSTRACT

The histological and ultrastructural changes occurring in the liver and small intestine of mice were examined by light and transmission electron microscopy, following the oral administration of praziquantel at the dosages of 250 mg/kg/day for 5 and 10 days and a single dose of 1250 mg/kg/day. Reversible signs of injury were observed in liver cells, following praziquantel administration at the dose 250 mg/kg/day for 10 days. These changes were partial depolymerization of the cytoskeletal network, vesiculation and dilatation of RER, proliferation of SER, glycogen depletion and chromatin clumping. In contrast, more severe and irreversible changes in the liver cells were observed at a single oral dose of 1250 mg/kg/day, and they consisted of the accumulation of lipid droplets, mitochondrial swelling, degeneration and clumping of chromatin

and the presence of intranuclear inclusions. In comparison to the liver cells, the intestinal epithelial cells showed only mild degenerative changes consisting of decreased cytoplasmic density, dilatation of RER, swelling of mitochondria and presence of multivesicular bodies and myelin - like figures. These changes occurred only in the epithelial cells covering the lower part of villi while those on the upper part remained intact.