

Toxicity of chloroform extract of prunus Africana stem bark in rats: Gross and histological lesions

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Abstract:

Chloroform extract of *Prunus africana* (Hook f. (Rosaceae) did not cause clinical signs or pathology in rats at daily oral doses of upto 1000 mg/kg for 8 weeks. The extract caused marked clinical signs, organ damage and a 50% mortality rate at a dose of 3.3 g/kg for 6 days. The main lesions observed at this dose were marked centrilobular hepatocellular degeneration and necrosis, diffuse nephrosis, myocardial degeneration, lymphocytic necrosis and neuronal degeneration. The morphological damage in these tissues caused a corresponding rise in blood biochemical parameters namely, aspartate aminotransferase, alanine aminotransferase, alkaline phosphatase, lactate dehydrogenase, creatine kinase and blood urea nitrogen. The target organs of toxicity of this extract are the liver, kidney and heart. Overt toxicity occurred only after the administration of multiple doses of 3.3 g/kg body weight. These findings confirm the suitability of this extract for therapeutic use, since the doses used in the therapy of prostate gland are much lower than those used in this study and would therefore not be expected to cause pathological changes.