

Effects of Ethanol Extracts of Healthy and Infected *Panicum maximum* (Jacq.) Floret on liver and kidney function profile and histopathology in *Sprague-dawley* rats

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Abstract

There is concern that consumption of infected of infected *Panicum maximum* florets may result in poisoning in livestock. This study investigated the effects of ethanol extracts of healthy and infected *P. maximum* florets (Poaceae) on selected indices of liver and kidney functions, haematological and histopathological parameters in female Sprague-Dawley rats. The rats were fed with different doses of lyophilized extracts for 21 days and effect of the plant on tissues of liver and kidney were macroscopically examined. Also the effects on the biochemical and haematological parameters were evaluated. The healthy floret extract significantly reduced ($P < 0.05$) aspartate aminotransferases (AST), alanine aminotransferases (ALT), and alkaline phosphatase (ALP), creatinine, urea, albumin and total protein at moderate to high doses. There were no significant changes in red blood cell (RBC), haemoglobin levels (HB) and packed cell volume (PCV) when compared with control. The infected floret extract significantly reduced ALT, AST and ALP at low to moderate (100 – 500mg /kg body weight) but induced significant increase in ALT level at the highest dose of 750mg/kg body weight when compared with control. Total protein and creatinine levels were not significantly ($P < 0.05$) affected while urea level was reduced at all doses. Red blood cell, HB and PCV increased as doses increased. Histopathological examination revealed marked pathological lesions on liver and kidney at high dose administration of the infected extracts. However healthy floret extracts did not induce any pathological lesions on liver and kidney. Phytochemical screening revealed presence of alkaloids, tannins, saponins and flavonoids.