ABSTRACT

Ficus thonningii is a nutraceutical that is extensively used in ethnomedicine. Nursing mothers use *F. thonningii* leaves as nutritional and medicinal supplements and are at risk of exposing their infants to its constituent phytochemicals. The exposure of the sensitive neonatal gastrointestinal tract (GIT) to these phytochemicals can result in irreversible changes in growth and development. The objectives of this study were to determine the effects of crude *F. thonningii* extracts on; growth, morphology and morphometry of the abdominal viscera and clinical biochemistry of neonatal rats.

Forty, suckling Sprague Dawley rats of either sex were randomly divided into 5 groups. Each group was orally gavaged once daily with either low (50 mg/kg b.w) or high (500 mg/kg b.w) doses of aqueous or methanolic extracts of *F. thonningii*, for 7 days. The control rats received distilled water. The pups were euthanased and tissues were collected and weighed. Samples of the liver, caecum and proximal small intestine were preserved and processed for histology. Plasma biochemical parameters were analysed colorimetrically. Data was presented as means $\pm$ SD.

F. thonningii extracts exhibited trophic effects on the stomach and ceacal mucosa of rats but had no significant growth-promoting effects on the small intestine and visceral organs. Histological analysis of the intestine, liver and caeca revealed no mucosal damage. Clinical chemistry parameters were not abnormally altered. There was a significant decrease ($p<0.05$, ANOVA) in the plasma concentrations of basal (non-fasting) glucose in the pups on the high methanolic extracts. However, the triglyceride and cholesterol levels were unaltered by the treatments.

The findings suggest that *F. thonningii* extracts exhibit trophic effects on the mucosal layers of the stomach and caecum. *F. thonningii* extracts also possess glucose-lowering activity. At low doses, *F. thonningii* extracts can be safely used without the risk of any disruption in the structural integrity of the neonatal rat GIT and function of the liver and kidneys.