Inhibitory effect of *Mangifera indica* on gastrointestinal motility

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**Abstract**

Diarrhoea, the second leading cause of child mortality, accounts for 1.5 million deaths, impeding the realization of the fourth Millennium Development Goal. A review of existing treatment modalities and formulation of newer ones is therefore necessary. Mango fruit (*Mangifera indica*) kernel has been used as anti-diarrhoea remedy. Its mechanism is however uncertain. The current study therefore aimed to investigate the *in-vitro* effect of *Mangifera indica* kernel extract (MIE) on intestinal motility, and elucidate its mechanism. The dose related effects of MIE was tested on sections of jejunum freshly isolated from rabbits. Various receptors were then selectively blocked to investigate its mechanism. Finally the effect of MIE was compared with that of loperamide. MIE reversibly inhibited motility by -46.38 ± 5.83 % (p<0.001), via a sympathomimetic mechanism. Its efficacy was comparable to loperamide, making it a potential antidiarrheal agent.

**Keywords**: Diarrhoea; mango kernel; gut motility; *Mangifera indica*