



Evaluation of the Antidiarrheal Activity of *Rhizophora mangle* L. (Rhizophoraceae)

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SUMMARY. The bark of *Rhizophora mangle* L. (Rhizophoraceae), “red mangrove”, has been used traditionally in folk medicine of Caribbean countries due to its antiseptic, astringent, antifungal and antidyspeptic properties. Owing to its astringent properties is used to treat diarrhea; however, there is no scientific evidence to support the use. This work was designed to determine the antidiarrheal effects of the bark of *R. mangle* in mice. The lyophilized extract was given by oral gavage (125, 250, and 500 mg/kg of weight). Pretreatment with the extract (500 mg/kg) resulted in a significant delay of gastrointestinal motility ($p < 0.001$). Propranolol (2.5 mg/kg) and verapamil (5.0 mg/kg) antagonized significantly ($p < 0.001$) the inhibitory effect of the gastrointestinal motility caused by *Rhizophora mangle* L. The extract showed dose-dependent inhibitory responses in the range 125-500 mg/kg in castor oil-induced diarrhea. In conclusion, the present results suggest that the bark of *Rhizophora mangle* L. produces an inhibitory effect on intestinal function, and we suppose that their action is mediated, at least in part, through β -adrenergic and calcium systems.

KEY WORDS: *Rhizophora mangle* L., Antidiarrheal activity, Gastrointestinal motility.

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