

Anti-inflammatory activity, safety and protective effects of *Leptadenia pyrotechnica*, *Haloxylon salicornicum* and *Ochradenus baccatus* in ulcerative colitis

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Abstract

Ethanollic extracts of *Leptadenia pyrotechnica*, *Haloxylon salicornicum* and *Ochradenus baccatus* were evaluated for their antioxidant and anti-inflammatory activities. The aim of the present study is to evaluate the effect of these extracts on the extent and severity of ulcerative colitis (UC) caused by intracolonic administration of acetic acid in rats. The tested plants showed high total phenolic and flavonoid contents. The ethanol extracts of *L. pyrotechnica* (400 mg/kg), *H. salicornicum* (200 and 400 mg/kg) and *O. baccatus* (400 mg/kg) produced significant reduction of carrageenan-induced paw edema. It was noticed that oral pretreatment with the same extracts and doses for 5 days before induction of colitis, protected against diarrhea, colonic ulceration and MPO activity elevation. Results showed a valuable effect of *L. pyrotechnica*, *H. salicornicum* and *O. baccatus* extracts against acetic acid-induced ulcerative colitis possibly by their antioxidant and anti-inflammatory properties.

Keywords: *Leptadenia pyrotechnica*, *Haloxylon salicornicum*, *Ochradenus baccatus*, toxicity, anti-inflammatory, ulcerative colitis

Introduction

Leptadenia pyrotechnica (Forsk.)Decne is a typical desert shrub of Asclepiadaceae family growing in different parts of Africa, Asia and Mediterranean region. It is known in the Arabic language as Markh, Assabay and Kalenba (McLaughlin, 2006). It used in folk medici-