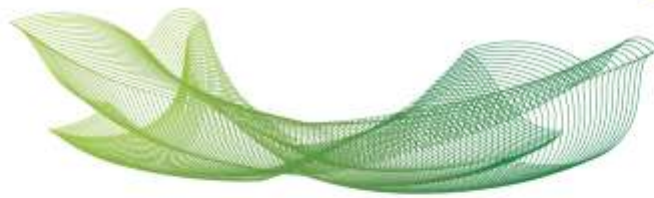




Tipo	Periódico
Título	<i>Byrsonima intermedia</i> A. Juss partitions promote gastroprotection against peptic ulcers and improve healing through antioxidant and anti-inflammatory activities
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Resumo	<p><i>Byrsonima intermedia</i> is a species of bush popularly used to treat gastrointestinal disorders, such as gastric ulcers, gastritis, and diarrhea. Previous studies have revealed that the methanolic crude extract of <i>B. intermedia</i> leaves has gastroprotective and healing properties. In this new study, we specifically investigated two purified partitions, ethyl acetate (EtOAc) and water (AcoAq), obtained from the crude extract to characterize the antiulcer effects of these two partitions and the mechanisms of action of this medicinal plant. The healing effects of these partitions on the gastric and duodenal mucosa were assessed after ischemia-reperfusion (I/R) or acetic acid-induced injury. The involvement of tumor necrosis factor-alpha (TNF-alpha), interleukin 1β (IL-1β), interleukin 10 (IL-10), and myeloperoxidase (MPO) activity and glutathione (GSH) levels were determined. The antibacterial activity against <i>Helicobacter pylori</i> was evaluated using microdilution methods. The phytochemical analysis of AcoAq revealed a predominance of oligomeric proanthocyanidins and galloyl quinic esters, whereas EtOAc was found to contain concentrated flavonoids. Both partitions led to a significant reduction in gastric lesions, but AcoAq was more effective than EtOAc with regard to anti-<i>Helicobacter pylori</i> activity in addition to protecting the gastric mucosa against ethanol, non-steroidal anti-inflammatory drugs (NSAIDs) and duodenal mucosal damage induced by cysteamine.</p> <p>Additionally, both partitions were associated with a significant increase in gastric and duodenal healing and increased gastric mucosal GSH content after damage induced by</p>



acetic acid. On the other hand, after 6 days of treatment, EtOAc was more effective than AcoAq in ameliorating gastric damage upon initiation of the gastric I/R, which was accompanied by a significant reduction in the activity of gastric mucosal MPO, IL 1- β and TNF-alpha, as well as an elevation in IL-10 and GSH content. These results demonstrate that the oligomeric proanthocyanidins and galloyl quinic esters present in AcoAq were more effective in the prevention of gastric and duodenal ulcers due to the antioxidant effects of these compounds, whereas the flavonoids present in EtOAc were more effective due to their anti-inflammatory activity on the gastric and duodenal tissue. All these results confirm that the rich phytochemical diversity of *B. intermedia* contributes to the pharmacological actions of this medicinal plant on the gastrointestinal tract in addition to its activity against *H. pylori*.

Fomento