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# Gastroprotective and Antiulcer Effects of *Celastrus paniculatus* Seed Oil Against Several Gastric Ulcer Models in Rats

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## ABSTRACT

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Peptic ulcers are a common condition of the so-called civilized world. They are often used for the prevention and treatment of various disorders, including gastroprotection. The present study was aimed at evaluating the gastroprotective activity of several models of gastric ulcers. The results were compared with those of the standard anti-ulcer drug, ranitidine. The results of the pharmacological studies showed that the gastroprotective activity of the seed oil of *Celastrus paniculatus* against several models of gastric ulcers in pylorus-ligated rats, the seed oil showed gastroprotective activity by decreasing total gastric

juice volume and gastric acidity while increasing the gastric pH. The gastroprotection against ethanol and indomethacin is partially attributed to effective inhibition of proinflammatory cytokines, TNF- $\alpha$  and IL-6, and increase in the levels of IL-10. Treatment with CPO in ethanol-induced ulcer rats significantly ( $p < .05$ ) decreased MDA (malondialdehyde) levels, which were accompanied by an increase in the activities of SOD (superoxide dismutase) and catalase. CPO reduced the rate of gastric emptying but had no effect on gastrointestinal transit. The present findings indicate that CPO has potent gastroprotective effects and support the folkloric usage of the seed oil to treat various gastrointestinal disturbances.

KEYWORDS: [Celastrus paniculatus seed oil](#) [gastric emptying](#) [gastro protection](#) [peptic ulcer](#) [ulcer index](#)

## Declaration of interest

The authors declare no conflicts of interest. The authors alone are responsible for the content and writing of the article.

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