

## Phenolic Content and Gastroprotective Activity of *Curcuma longa* L. Aqueous Extract

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### Abstract:

*Curcuma longa* L. is a perennial shrub which belongs to the Zingiberaceae family. It's a medicinal plant largely used in traditional indian medicine for a long time and is currently known by several countries by their multiple therapeutic virtues. The aim of the present study was to determine the phenolic content and to evaluate the gastroprotective activity of *Curcuma longa* L. aqueous extract. The ground rhizome of the curcuma was subjected to a decoction to obtain an aqueous extract, whose yield was 11.54%. The quantitative estimation of polyphenols and flavonoids showed that the extract contains these compounds; the total polyphenol content determined using the Folin-Ciocalteu reagent was  $178 \pm 0.001$  mg gallic acid equivalent/g of dry extract. While that of flavonoids evaluated by the aluminum trichloride method was  $24 \pm 0.001$  mg quercetin equivalent/g of dry extract. The gastroprotective effect of curcuma aqueous extract was studied using 100% ethanol as an ulcerogenic agent. The dose of 200 mg/kg causes a low protection ( $59.06 \pm 9.67\%$ ) compared to the high dose (400 mg/kg) which gives a more powerful protection ( $89.27 \pm 3.38\%$ ). In conclusion, the biological activities of this extract may be due to the presence of polyphenols such as flavonoids.