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## Formulation and Evaluation of Amla and Licorice Based Herbal Syrup for Peptic Ulcer

Divya P Zute, Avhad. V. R, Randhawan. B. B, Bharat M Barkade, Tejas R Pache Arihant College of Pharmacy, Kedgaon, Ahilyanagar, Maharashtra, India.

Abstract: Peptic ulcers, primarily caused by Helicobacter pylori infection, prolonged NSAID use, and excessive gastric acid secretion, remain a prevalent gastrointestinal disorder worldwide. Current pharmacological treatments, though effective, are often associated with adverse effects and high recurrence rates. This study explores the anti-ulcer potential of an Amla (Emblica officinalis)-based herbal formulation, leveraging its rich phytochemical profile and traditional medicinal use. A standardized extract of Amla was formulated and evaluated for gastroprotective activity using indomethacin and ethanol-induced ulcer models in Wistar rats. Biochemical markers, histopathological analysis, and gastric mucus content were assessed to determine efficacy. The results demonstrated significant ulcer inhibition in treated groups, accompanied by reduced inflammation and oxidative stress markers. The formulation exhibited a cytoprotective effect likely due to the presence of tannins, flavonoids, and ascorbic acid. These findings suggest that the Amla-based formulation holds promise as a natural, effective, and safer alternative for peptic ulcer management. Further clinical studies are warranted to confirm its therapeutic potential in human subjects..

**Keywords**: Amla, Emblica officinalis, peptic ulcer, gastroprotection, herbal formulation, antioxidant, cytoprotective activity, ulcer inhibition, natural therapy, oxidative stress



