

Phytochemical Screening & Antioxidants Evaluation of *Ficus carica* (Fig) Fruits using Various Solvent Extraction

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Abstract. *Ficus carica*, commonly known as fig, is abundant in therapeutic compounds that have been tremendously utilized traditionally due to its nutritional values. By harnessing this medicinal plant, it will help to identify potential therapeutic compounds and contribute to providing evidence-based clinical treatment. This study aimed to investigate the phytochemical and antioxidant activity of *Ficus carica* fruit extract using various solvent extraction. The fruit extract of *Ficus carica* was obtained using ethanolic, aqueous and chloroform extraction methods. Phytochemical screening which includes Mayer reagent test for alkaloids, Molisch reagent test for carbohydrates, Benedict's reagent for carbohydrates, glycosides test, alkaline reagent test for flavonoids, tannins, saponins, Millon's test for proteins, Ninhydrin test for proteins, steroids and test for terpenoids was conducted on ethanolic *Ficus carica* fruit extract. Then, the ethanolic, aqueous and chloroform *Ficus carica* fruit extracts were diluted to various concentrations and tested for antioxidant assays which were total phenolic content, DPPH radical scavenging activity and FRAP. The phytochemical screening on *Ficus carica* fruits identified the presence of flavonoids, alkaloids, proteins, steroids, carbohydrate and terpenoids but the absence of glycosides, tannins, saponins, and iodine. Ethanolic extract of *Ficus carica* fruit was observed to have the highest total phenolic content of 44.101 ± 0.005 mg GAE/g DW, DPPH is the lowest IC_{50} of 0.005 mg/ml and highest FRAP value of 29.423 ± 2.640 mg AAE/G DW at the lowest sample concentration, followed by aqueous and chloroform extractions, indicating that the highest antioxidant activity produced by the ethanolic *Ficus carica* fruit extract. Ethanolic extract of *Ficus carica* shows various phytochemical properties and exhibits potent antioxidant activity.

Keywords: Antioxidant; *Ficus Carica*, fig, phytochemical properties