

Antioxidant, Anti-Diabetic and Phytochemical Screening of Dried *Ficus carica* Linn Fruit Powder †

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Abstract: *Ficus carica* L. or the common name is red figs that belong to the Moraceae family or the Mulberry family. Every part of the fruit or the tree has been able to treat different types of common diseases, for example, it is used as a natural laxative or a supplementary food for diabetes. Thus, this research uses four different solvents, ethyl acetate, ethanol, hexane, and water, to obtain the respective crude extracts in order to investigate the anti-diabetic properties by determining the inhibition of the activity of the diabetic enzymes, α -amylase, and α -glucosidase; and the DPPH assay determines the antioxidant activity while qualitative phytochemical screening was for phenols, alkaloids, tannins, saponins, and flavonoids; total quantitative phenolic and total flavonoid content was done. The phytochemical screening showed the presence of the compounds tested in different types of crude extracts. For the total phenolic content, ethyl acetate extract exhibits the highest content. In contrast, hexane extract shows the highest total flavonoid content. For the DPPH assay, ethyl acetate extract has the highest scavenging activity at 13.351 $\mu\text{g}/\text{mL}$ with corresponding with the data of total phenolic content. For the α -glucosidase inhibitory activity, water extract has the lowest IC_{50} value among the four extracts but higher value than the standard. For α -amylase inhibitory activity, only ethanol extract showed the IC_{50} value, but it was a high value. In conclusion, there is potential for figs to be a natural source of medicine, and the extracts tested can be used for future studies.

Keywords: *Ficus carica*; Antioxidant activity; Anti-diabetic activity.

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Conflicts of Interest

The authors declare no conflict of interest.