



Seasonal Variations in Antioxidant Activity, Total Flavonoids Content, Total Phenolic Content, Antimicrobial Activity and Some Bioactive Components of *Ficus carica L.* in Palestine

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Abstract: The genus *Ficus* is one of the largest genera of angiosperms with more than 800 species. This study aimed at investigating the pharmacological properties of *Ficus carica linn.* Leaves were collected in two seasons (May and October) and were extracted by Soxhlet extractor with different percentages of methanol-water, ethanol-water and pure water solvents. 100% methanol and 95% ethanol offered the highest yield (about 23%). Those extracts were further extracted/partitioned with n-butanol. May samples showed higher TPC, TFC and AA results than October samples. The ethanol-butanol extract had the highest TPC results (150.7±0.5 mg GA/g extract), while methanol-butanol extract showed the highest results for TFC and AA (350±4.3 mg Rutin/g extract and 368.1±1.9 mg FeSO₄/g extract, respectively). Ethanol and methanol extracts were weakly active against *E. coli*, while the extracts showed good inhibition activity against oral flora, where October samples gave higher activity than May samples. Some components of extracts were analyzed by a newly developed HPLC-PDA method. Eight compounds were identified: chlorogenic acid, caffeic acid, syringic acid, coumaric acid, rutin and *trans*-cinnamic acid. Quercetin was identified after acid hydrolysis of extracts in all sample extracts, while ferulic acid was present in water extract only.

Keywords : *Ficus carica linn*; pharmacological properties, antimicrobial activity, HPLC analyses.

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