Phytochemical analysis of Myrtus communis plant: Conventional versus microwave assisted-extraction procedures

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Description
Background

Myrtle (Myrtus communis L) may constitute an interesting dietary source of health protective compounds. Microwave-assisted extraction (MAE) of total phenolic compounds (TPC) from myrtle leaf, stems, pericarp, and seeds was studied and the results were compared with those of the conventional method extraction (CME) in terms of extraction time.

Methods

Extraction yield/efficiency and antioxidant activity were measured using radical scavenging assay (DPPH•) and reducing power.

Results

The results show that the MAE was higher in terms of saving energy, extraction time (62 s) and extraction efficiency of bioactive compound compared to CME (2 h). Leaf presented the optimum content of total phenols (250 mg GAE. g− 1 DW) and flavonoids (13.65 mg GAE. g− 1 DW). However, the anthocyanin content was most important in pericarp extract (176.50±2.17 mg Cyd-3-glu g− 1 D