

Secondary metabolites and bioactivities of *Myrtus communis*

Mahmoud I. Nassar, El-Sayed A. Aboutabl, Rania F. Ahmed, Ezzel-Din A. El-Khrisy, Khaled M. Ibrahim, Amany A. Sleem

^aDepartments of Chemistry of Natural Compounds

ABSTRACT

Background *Myrtus* species are characterized by the presence of phenolic acids, flavonoids, tannins, volatile oils and fatty acids. They are remedies for variety of ailments. This study therefore investigated medicinal effects of *Myrtus communis* L. **Methods** Bioactivity studies of *Myrtus communis* L. leaves were carried out on volatile oil, 7% methanol and aqueous extracts and the isolated compounds myricetin 3-O-beta-glucopyranoside, myricetin 3-O- -rhamnopyranoside and gallic acid. **Results** Determination of the median lethal dose (LD₅₀) revealed that the volatile oil, alcoholic and aqueous extracts were practically nontoxic and highly safe as no lethality was observed. The tested materials (volatile oil, alcoholic and aqueous extracts, myricetin 3-O-beta-glucopyranoside, myricetin 3-O- -rhamnopyranoside and gallic acid) showed significant antihyperglycemic, anti-inflammatory and antinociceptive effects as compared with control groups and reference drugs. **Conclusion** Administration of extracts of *M. communis* leaves could be safe at the dose used in this study.

KEYWORDS

Antihyperglycemic . anti-inflammatory . antinociceptive . LD₅₀ . *Myrtus communis* . Volatile oil

REFERENCES