

PP80. Biological activity and chemical composition of essential oils from the leaves of *Myrtus communis* L.

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Common myrtle (*Myrtus communis* L., Myrtaceae) is an evergreen shrub. The genus *Myrtus* includes flowering plants and was previously thought to be represented by approximately 16 taxa in the areas of the Middle East and Asia [1]. It has been used for medicinal, food and spice purposes since ancient times. The essential oil is used as an antiseptic, disinfectant, analgesic, and antiinflammatory agent [2,3].

In the present work, *M. communis* leaf essential oil was obtained by hydrodistillation using a Clevenger apparatus. The essential oil was analyzed by both GC-FID and GC-MS. α -Pinene (43.1%) and linalool (18.8%) were found to be the main constituents. The oil was evaluated for its toxicity (*Caenorhabditis elegans*), antileishmanial and antimicrobial activities. The IC₅₀ value was 2.5 mg/mL against *Leishmania tropica* promastigotes. The following MIC values were determined: *Staphylococcus aureus* ATCC 6538 : 20 mg/mL; *Streptococcus pyogenes* ATCC 13615 : 5 mg/mL; *Candida albicans* ATCC 90028 : 10 mg/mL; and *Escherichia coli* NRRL B-3008 : 1.25 mg/mL. To the best of our knowledge, this is the first report on the *in vivo* selectivity of *M. communis* leaf essential oil against *Leishmania tropica*.

References:

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