

Abstract

The extraction of essential oils of *Laurus nobilis* leaves is obtained by hydrodistillation and analyzed by gas chromatography coupled with mass spectrometry (GC/MS) for determining their chemical composition and identification of their chemotypes. The volatile extract was also subjected to screening for their potential antimicrobial activity in vitro against three pathogenic bacteria strains (*Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Escherichia coli*) and one yeast specie (*Candida albicans*) using the diffusion method from a solid disk. The essential oil yields of the studies were 0.79 %. The major components were 1,8-cineole (10.655 %), linalool (11.072 %) and terpenyl acetate (11.495 %), other predominant components were methyl eugenol (9.748 %), β -caryophyllene (5.874 %), eugenol (3.864 %) and α -terpineol (3.247 %). The chemical compositions revealed that this leaves had compositions similar to those of other *Laurus nobilis* essential oils analyzed in other countries but with a different percentage. The results of antimicrobial analysis showed that 0.25 % oil of laurel oil completely inhibits the growth of *Candida albicans*, whereas 0.5 % is fungicide. Regarding *Escherichia coli* and *Staphylococcus aureus*, *Laurus nobilis* oil, revealed bactericidal activity at the concentration of 2 % and 4 %, respectively.