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AN INVESTIGATION ON ANTIMICROBIAL EFFECTS OF ESSENTIAL OILS OF CORIANDER AND CUMIN AT DIFFERENT CONCENTRATIONS

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ABSTRACT

The antimicrobial activity of essential oils of coriander and cumin were investigated at 25 and 50 µg concentrarions. The essential oils of these spice's fruits were determined by steam distillation method. The disk diffusion method was used to measure the antimicrobial activity, and the disks were prepared by absorbing 25 and 50 µg of the essential oil solution, and antimicrobial activities were examined on some Gram positive (*Staphylococcus aureus*, *Bacillus subtillis*, *Streptococcus pyogenes*), Gram negative (*Escherichia coli* pUC9, *Pseudomanas aeroginosa*) bacteria and a fungi (*Candida albicans* 174). The findings showed that Gram (-) bacteria were more sensitive to the spices than Gram (+) bacteria. As a result, we found that the low concentrations of essential oils of *Coriandrum sativum* and *Cuminum cyminum* revealed effectively antibacterial effects against some Gram (+) and Gram (-) bacteria used in the study.

Keywords: *Antimicrobial activity, Coriandrum sativum L., Cuminum cyminum L.*