Antimicrobial Activity of Some Salvia Species Essential Oils from Iran

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The aerial parts of Salvia multicaulis, S. sclarea and S. verticillata were collected at full flowering stage. The essential oils were isolated by hydrodistillation and analyzed by combination of capillary GC and GC-MS. The in vitro antimicrobial activity of the essential oils were studied against eight Gram-positive and Gram-negative bacteria (Bacillus subtilis, Bacillus pumulis, Enterococcus faecalis, Staphylococcus aureus, Staphylococcus epidermidis, Escherichia coli, Pseudomonas aeruginosa and Klebsiella pneumoniae) and three fungi (Candida albicans, Saccharomyces cerevisiae and Aspergillus niger). The results of antibacterial activity tests of the essential oils according to the disc diffusion method and MIC values indicated that all the samples have moderate to high inhibitory activity against the tested bacteria except for P. aeruginosa which was totally resistant. In contrast to antibacterial activity, the oils exhibited no or slight antifungal property, in which only the oil of S. multicaulis showed weak activity against two tested yeasts, C. albicans and S. cerevisiae.