

عنوان مقاله:

Antimicrobial effects of Rosmarinus officinalis methanolic extract on Staphylococcus aureus, Bacillus cereus, Escherichia coli and Pseudomonas aeruginosa in laboratory conditions

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خلاصه مقاله:

Treatment of bacterial infections with chemicals has led to drug resistance. Therefore, research to replace herbal treatments with less side effects is of a great importance. Therefore, this study aims at investigating the antimicrobial effects of methanolic extract of Rosmarinus officinalis on some gram positive and gram negative bacteria. In this research study, after collecting the plant and confirming its scientific name, R. officinalis extract was prepared using Soxhlet extractor method at the concentrations of ۲۰-۴۰۰ mg/mL and the antimicrobial effects of the extract using agar well diffusion and determination of the minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC) from dilution method against standard bacteria of Staphylococcus aureus, Bacillus cereus, Escherichia coli and Pseudomonas aeruginosa. Methanolic extract of R. officinalis plant has an inhibitory effect on P. aeruginosa, E. coli and S. aureus so that it has the highest sensitivity to methanolic extracts of R. officinalis in P. aeruginosa with a ۱۹.۸ mm the zone of growth inhibition and the lowest sensitivity to S. aureus with the zone of growth inhibition ۱۴.۴ mm. The results of this study showed that R. officinalis extract has a significant effect on tested bacteria, and further research is required to identify, quantify, and purify its effective compounds.

کلمات کلیدی:

Antimicrobial effects, Extract, Rosmarinus officinalis

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