

عنوان مقاله:

Antibacterial effect survey of total extract and different fractions of aerial part of *Teucrium orientale* var *glabrescens* on several pathogenic bacteria

محل انتشار:

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خلاصه مقاله:

According to the vast widespread drug resistance among pathogenic microorganisms and the side effects of many chemical drugs, research on novel antimicrobial compounds is urgently needed. Some herbs have been shown to have antimicrobial properties and can be used to produce antimicrobial drugs. In this study, different extracts effects of *Teucrium orientale* was practiced on several pathogenic bacteria (*Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Escherichia coli*, *Bacillus subtilis*, *Salmonella typhimurium*, *Staphylococcus expidermidis*). The plant specimens were dried and powdered after transferring to the laboratory and final approval. Extraction was performed using methanol and water solvents and then ethyl acetate, diethyl ether and chloroform fractions using standard methods. The extracts were kept in standard conditions after determination of net weight until the continuation of monitoring. Serial concentrations of each extract and fraction were prepared in appropriate solvent for microbial tests and then their antibacterial activity was performed according to standard agar diffusion method and mean diameter of growth zone was recorded as antimicrobial activity. *Pseudomonas aeruginosa* showed the highest resistance to different concentrations of the extracts according to obtained results. The highest sensitivity was observed in *B. subtilis* at concentration of  $5 \cdot \text{mg} / \text{ml}$  ethyl acetate extract with  $25.9 \text{ mm}$  diameter of growth zone. The results of this study have shown that the extract of *T. orientale* has the ability to treat microbial infections in humans. Further studies and identification of its constituents are essential for the use of this plant as a drug.

کلمات کلیدی:

Medicinal herbs, Antimicrobial Effects, Antibacterial activity, Pathogenic microorganisms, Microbial test

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