

Antimicrobial Activity of Oleogum Resin Extract & Essential Oil of *Ferula gummosa* Boiss Against Clinical Strains of *Acinetobacter*

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Background & Objectives: *Acinetobacter spp.* is an important cause of nosocomial infections and with widespread resistance to various antibiotics. *Ferula gummosa* boiss belonging to the family Apiaceae is a wild plant indigenous to Iran. This plant has been used in traditional medicine for its medical properties. Phytochemical investigations show *F. gummosa* boiss is source of biologically active compounds. The aim of this study was to evaluate the antibacterial activity of oleogum resin extract & essential oil of *F. gummosa* boiss against Clinical strains of *Acinetobacter*.

Methods: Alcoholic, hydroalcoholic and aqueous extracts from oleogum resin of *Ferula gummosa* were obtained with maceration Methods and Alcoholic, hydroalcoholic and aqueous essential oils was by hydrodistillation methods using a Clevenger apparatus. Solvents evaporated to dryness under reduced pressure in a rotavapor. Antimicrobial activities of extracts and essential oils against of standard and clinical strains of *Acinetobacter* were evaluated using the agar diffusion methods with disc & well. The minimal inhibitory concentration determined using Broth microdilution methods.

Results: Alcoholic essential oil showed higher antibacterial activity while aqueous extract and essential oil don't have considerably antibacterial activity.

Conclusion: Alcoholic and hydroalcoholic extracts and essential oils had growth inhibitory effect on the bacteria. Alcoholic essential oil had significantly greater effect on inhibition of growth of *Acinetobacter* strains.

Keywords: *Acinetobacter*; Antimicrobial Activity; *Ferula gummosa*