

Original Paper

## Effect of aqueous and alcoholic extracts of roots of *Ferula gummosa* Boiss. on the growth of *Pseudomonas aeruginosa*

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### Abstract

**Background and Objective:** *Ferula gummosa* Boiss. (Barije.) contain medical and antimicrobial properties. This study was done to determine the effect of aqueous and alcoholic extracts of roots of *Ferula gummosa* Boiss. on the growth of *Pseudomonas aeruginosa*.

**Materials and Methods:** In this laboratory study, the plant was dried in dark place and aqueous, alcoholic extracts of Barije's root, powder were prepared using Soxhlet method. The efficacy of 0.1 dilution of different values of extracts of *Ferula gummosa* Boiss. on the strain of *Pseudomonas aeruginosa* (PTCC 1430) were evaluated by disk diffusion, Agar-well diffusion, minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC) methods.

**Results:** *Pseudomonas aeruginosa* was completely resistant to the aqueous extract, and the MIC for the methanol and ethanol extracts was  $1.25 \times 10^4$   $\mu\text{g/ml}$  and  $6.25 \times 10^3$   $\mu\text{g/ml}$ , respectively.

**Conclusion:** Methanolic and ethanolic extracts of *Ferula gummosa* Boiss. have antimicrobial activity against *Pseudomonas aeruginosa* in in-vitro model.

**Keywords:** *Ferula gummosa* Boiss, *Pseudomonas aeruginosa*, MIC, MBC

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