

Determination the Antibacterial Activity of Iranian *Rosa foetida* Methanolic Extract by Two Commercial Methods.

Mojdeh Hakemi Vala*¹; Faraz Mojab²; Leila Mahbobi³; Fatemeh Bagheri Bejestany³

1-Department of Microbiology, School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran

2- Department of Pharmaceutical Sciences, Shahid Beheshti University, Tehran, Iran

3- Phamarceutical Sciences Branch, Islamic Azad University, Tehran, Iran

mojdeh_hakemi@yahoo.com

Background & Objectives: The plant Rose has many varieties and *Rosa foetida* Hermm is a member of Rosacea tribe. This flower grows in some countries including North, west and center of Iran. The aim of this study was determination the antibacterial activity of Iranian *Rosa foetida* methanolic extract by two commercial methods.

Methods: At first the plant was collected and identified by herbarium department. Continuously, it was washed and grounded for extraction. It's methanolic extract was obtained by Succilate apparatus. The antibacterial activity was evaluated by both cup plate and disk diffusion methods against *E.coli*, *Pseudomonas aeruginosa*, *Salmonella typhi*, *Staphylococcus aureus* and *Streptococcus pyogenes*. Finally, MIC was determined by microdilution methods in sensitive cases.

Results: The antibacterial effect was detected against all tested bacteria but the best results obtained for 0.75g/cc methanolic concentration against *P.aeruginosa*, *S.aureus*, *E.coli* and *S.typhi* strains by both Methods. MIC ranging from 0.008 to 0.03g/cc.

Conclusion: However, the results were similar in some cases but based on statistical comparison and detected P value, the accuracy and efficacy of cup plate Methods was higher than disk diffusion Methods(P<0.05) in this study.

Keywords: Antibacterial Activity; *Rosa foetida*; Iran