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EVALUATION OF THE ANTIBACTERIAL ACTIVITY OF *CYNARA SCOLYMUS* EXTRACT AND ITS WOUND HEALING POTENCY AGAINST MULTIDRUG-RESISTANT *ACINETOBACTER BAUMANNII*, *IN VITRO* AND *IN VIVO* STUDY

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Abstract

Objectives: *Plants extracts known as phytomedicine have immense potential for the management and treatment of wounds. Aim of this study was evaluate the antimicrobial effect and wound healing potency of Cynara scolymus against multidrug-resistant A. Baumannii infection.*

Materials and Methods: *Cynara scolymus hydroalcoholic extract in comparison with gentamicin antibiotics on clinical strains as well as pathogenic bacteria such as Multidrug-Resistant Acinetobacter Baumannii, under in vitro conditions using micro broth dilution and disc diffusion methods. Moreover, minimum inhibitory concentration and Minimum bactericidal concentration of its hydroalcoholic extract was also evaluated.*

Results: *The results showed that although Cynara scolymus extract was effective on Multidrug-Resistant Acinetobacter Baumannii. The extract was also tested in the form of topical administration on excision wound model in rats. In the extract-treated wounds, the wound healing percent was significantly increased in comparison with controls.*

Conclusions: *Based on this research, herbal extract of Cynara scolymus can be a great candidate for the treatment of Multidrug-Resistant Acinetobacter Baumannii infections and merits further studies.*

Keywords: **:** multidrug-resistant, *acinetobacter baumannii*, wound healing, *cynara scolymus*, animal study

Introduction

Skin refers to the soft tissues on the surface of the body, and its weight accounts for about 15% of total body weight. It can therefore be said that skin is the largest organ of the human body. In daily life, skin mainly isolates the internal and external environments of the human body to avoid physi-

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