

## عنوان مقاله:

Evaluation of antibacterial properties and wound healing ointment based on curcumin and honey

## محل انتشار:

بیست و یکمین کنگره ملی و نهمین کنگره بین المللی زیست شناسی ایران (سال: 1399)

تعداد صفحات اصل مقاله: 1

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## خلاصه مقاله:

Wounds from various burns can severely impair the life quality of patients. The use of natural compounds in the treatment of various diseases has long been considered. Curcumin and honey have been used as traditional wound-healing medicines in some ancient civilizations. The study aimed to investigate the synergistic healing properties of these substances as a novel burn ointment in secondary burn wounds. In this study, MIC<sub>50</sub> and MIC<sub>99</sub> use of curcumin and honey on 200 clinical isolates of *Pseudomonas aeruginosa* were compared with imipenem in vitro. Their killing time and cytotoxicity were also studied using standard *P. aeruginosa* isolates, fibroblast stem cells, and mouse embryonic fibroblasts, respectively. Then, 150 male Wistar rats weighing between 280 and 300 gr were divided into four experimental groups receiving a newly prepared burn ointment containing honey and curcumin, ointment base, zinc oxide ointment, and no treatment as the control for 3 weeks on the experimentally induced burn wounds. Histopathological and histomorphological assessments were then conducted on the injured area to evaluate the efficiency of the prepared burn ointment. MIC<sub>50</sub> and MIC<sub>99</sub> against *P. aeruginosa* were at least 64 and 128 µg mL<sup>-1</sup> for imipenem, 16 and 32 µg mL<sup>-1</sup> for curcumin, and 8 and 16 µg mL<sup>-1</sup> for honey. Histopathological results showed wound re-epithelialization. According to the results, it can be claimed that burn ointment containing honey and curcumin has a significant effect on accelerating the healing of burn wounds.

## کلمات کلیدی:

Wounds, Second-degree burns, Medicinal plants, Burn healing

## لینک ثابت مقاله در پایگاه سیویلیکا:

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