

عنوان مقاله:

Maggot Excretions/Secretions: A Novel Candidate for Treatment of Bacterial Keratitis

محل انتشار:

بیست و هشتمین کنگره سالیانه انجمن چشم پزشکی ایران (سال: 1397)

تعداد صفحات اصل مقاله: 1

نویسندگان:

Hossein Aghamollaei - Chemical Injuries Research Center, Systems biology and Poisonings Institute, Baqiyatallah University of Medical Sciences, Tehran, Iran

Khosrow Jadidi - Chemical Injuries Research Center, Systems biology and Poisonings Institute, Baqiyatallah University of Medical Sciences, Tehran, Iran

Hamidreza Safabakhsh - Chemical Injuries Research Center, Systems biology and Poisonings Institute, Baqiyatallah University of Medical Sciences, Tehran, Iran

Seyed Aliasghar Mosavi - Chemical Injuries Research Center, Systems biology and Poisonings Institute, Baqiyatallah University of Medical Sciences, Tehran, Iran

خلاصه مقاله:

Purpose: Due to development of methiciline resistance Staphylococcus aureus (MRSA), development of new antimicrobial agents for treatments of S.aureus keratitis is desirable. Excretions/secretions (ES) from larvae of maggots (Lucilia sericata) showed antibacterial activity against a range of bacteria. The aim of this study is evaluation of safety and efficacy of larval ES for treatment of S. aureus keratitis. Methods: For safety evaluation, Right eye of four New Zealand rabbits were topically treated with ES each 30 min for 3 hours (total of seven drops/eye). Ocular toxicity was evaluated using the Draize scoring system. Efficacy evaluation was performed by intrastromal injection of MRSA into rabbit cornea. The rabbits were divided into three treatment groups including Phosphate buffer saline, gentamicin and ES extract. After treatment, the eyes wereexamined clinically by slit lamp. Finally, the corneas were harvested for colony counts and pathological examinations. Results: Safety evaluation by Draize testing showed that total score was equal to zero. Efficacy evaluation showed that two treatment groups (ES and Gentamicine) were significantly different from the control group (P0.05). After treatment, ES and Gentamicine significantly reduced CFU compared with the untreated eyes. The mean bacterial count (CFU) for Gentamicine, ES and untreated groups were 4x104, 2.1x106 and 3x108 respectively (P 0.05). Conclusion: In conclusion, the extraction from larvae of maggots is a safe and effective in treating keratitis mediated by MRSA. Isolation of ES component with antibacterial activity is recommended

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا:



https://civilica.com/doc/809656

