

عنوان مقاله:

Effect of phage on *Acinetobacter baumannii* biofilm

محل انتشار:

بیستمین کنگره بین المللی میکروب شناسی ایران (سال: 1398)

تعداد صفحات اصل مقاله: 1

نویسندگان:

Saeedeh ebrahimi - *Department of Bacteriology and Virology, Faculty of Medicine, Isfahan University of Medical Science, Isfahan, Iran*

Behnam sisakhtpour - *Department of Bacteriology and Virology, Faculty of Medicine, Isfahan University of Medical Science, Isfahan, Iran*

Sharareh moghim - *Department of Bacteriology and Virology, Faculty of Medicine, Isfahan University of Medical Science, Isfahan, Iran*

Arezoo mirzaei - *Department of Bacteriology and Virology, Faculty of Medicine, Isfahan University of Medical Science, Isfahan, Iran*

Vajihe Karbasizadeh - *Department of Bacteriology and Virology, Faculty of Medicine, Isfahan University of Medical Science, Isfahan, Iran*

خلاصه مقاله:

Introduction and Objectives: Biofilm-associated infections caused by *Acinetobacter baumannii* are extremely tenacious to antibiotic treatment. According to this fact, phage therapy is a good choice for alternative treatment. The aim of this study is to investigate the phage effect on *A. baumannii* biofilm formation. **Materials and Methods:** The clinical bacteria that isolated were confirmed by phenotypic and PCR method with *bla_{oxa}* gene, then among of them MDR isolates with disk diffusion method, chose for further investigation. The MIC method was performed according to CLSI 2018. Biofilm formation was measured by microtitre plate. Phage isolation from the environment was performed. Finally, the effect of phage was tested on the biofilm formation of *A. baumannii* by co-incubation. **Results:** Fifteen MDR isolates detect and in the MIC test, demonstrate the high resistance value, also in the biofilm formation assay 60%, 26.6% and 13.3% of isolates show strong, moderate and weak biofilm formation respectively. among of those isolates one isolate, that has strongest biofilm and the most resistance, choose for the effect of phage in Mol 10, 1, 0.1, 0.01, 0.001. our study demonstrates that the phage in Mol 0.01 has the best effect on the biofilm formation of that bacteria. **Conclusion:** Our study demonstrate that phage in Mol 0.01 could be effective in eradication of biofilm formation in *Acinetobacter baumannii*. Efficient bacteriolytic activity and significant reduction of the bacterial biofilm .suggests its therapeutic potential to be used to treat infection caused by *A. baumannii*

کلمات کلیدی:

multi-drug resistant *Acinetobacter baumannii*, biofilm, phage, phage therapy

لینک ثابت مقاله در پایگاه سیویلیکا:

