

عنوان مقاله:

Quorum quenching for the management of dental plaque microbes

محل انتشار:

مجله بین المللی میکروبیولوژی مولکولی و بالینی، دوره 2، شماره 2 (سال: 1391)

تعداد صفحات اصل مقاله: 5

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خلاصه مقاله:

In the present study, variation among different bacterial strains was observed in the plaques of tobacco chewers (TC) as compared to those from normal persons (non tobacco chewers) (NTC). Bacterial strain J\ (dominant in the plaques of NTC) did not initiate the process of adhesion (biofilm formation) until it appeared to have reached a required population density necessary for the production of adhesive substances by the bacterium, which indicating the involvement of quorum-sensing mechanism. The spent media of bacterial strain J\Δ (dominant in the plaques of TC) also substantially reduced the adhesion of the respective bacteria to the acrylic particles by bacterial strain J\ . This indicates the possibilities of existence of some quorum-quenching molecules in the spent medium of strain J\ as well as strain J\Δ bacteria. These molecules might be exploited for efficient management of dental plaque-biofilms. It may help to avoid the use of extremely high doses of antibiotics which may be harmful in the long run

کلمات کلیدی:

Quorum sensing, dental plaque, Biofilm, Streptococcus, Staphylococcus

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