

عنوان مقاله:

(The Effect of Nonnutritive Sweeteners on the Antimicrobial Activity of Eucalyptus Extracts against Salivary Mutans Streptococci (in-vitro Study

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نویسندگان:

D. M AL-Qaralusi - Department of Basic sciences, College of Dentistry, University of Baghdad, Baghdad, Iraq

A. S Al-Mizraqchi - Medical Microbiology, Department of Basic Sciences, College of Dentistry, University of Baghdad, Baghdad, Iraq

خلاصه مقاله:

The eucalyptus tree is an excellent source of antimicrobial agents; it is used in many oral cure products. The bitter taste of these agents could compromise their usage. Therefore, fortifying the extracts with non-nutritive sweeteners could be a promising procedure for masking their unpleasant taste. This study was an in vitro evaluation of the antimicrobial activity of eucalyptus (alcoholic and aqueous) extracts against salivary Streptococci mutans. It aimed to investigate the effect of non-nutritive sweeteners on the antimicrobial activity of these extracts against salivary S. mutans. The test microbes were sensitive to different concentrations of eucalyptus alcoholic and aqueous extract, and the inhibition zone increased as the concentration of the extracts increased. All the Mutans isolates were killed at a concentration of 75 mg/ml for the alcoholic extract and 175 mg/ml for the aqueous extracts. In this experiment, the concentration of up to 15% stevia and up to 5% sucralose did not affect the antimicrobial activity of eucalyptus alcoholic extract. While the concentration of up to 1% of stevia and sucralose did not interfere with the antimicrobial activity of aqueous eucalyptus extract against salivary S. mutans. An increase in the concentration of non-nutritive sweeteners in this experiment appeared to interfere with the antimicrobial activity of eucalyptus extract against salivary S. mutans.

کلمات کلیدی:

Eucalyptus, Mutans streptococci, Nonnutritive sweeteners, Stevia, Sucralose

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