

Evaluation the effect of concentration of ginger extract on the growth rate of Actinomyces Naslundicolony (in-vitro)

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Abstract

Background & Aim : Microbial plaque is the main factor of periodontal diseases which is caused by colonization of bacteria on the tooth surfaces. So, if we manage to prevent microbial plaque we may take a great step towards prevention of periodontal diseases. The objective of this research is to study the effect of various densities of ginger extract on the growth of Actinomyces Naslundicolony in in-vitro environment.

Materials & methods: In this experimental study the ginger extract was prepared in 11 test tubes with different densities and 12th test tube was used as the control sample. First, strains of the concerned bacteria were separately cultured in the specific culture medium (Taioglicolat syrup) and then 0.5 Mcfarland of the pure bacteria was added to each test tube and then the tube was stirred perfectly. Then from all 12 tubes 100 landa were cultured on a previously prepared solid blood agar culture environment and were left in incubator for 24 hours in 37 degree centigrade.

Results: Observations indicated that amount of MIC and amount of MBC are 0.02 Mg./MI and 0.04 Mg./MI, respectively.

Conclusion: Based on the results, ginger extract successfully showed its antibacterial effect on Actinomyces Naslundicolony. ginger extract could be applied in herbal mouthwash liquids and herbal toothpastes for its antibacterial properties.

Key words: Actinomyces, Ginger, MIC