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Antimicrobial effect of green tea extract on cariogenic microorganisms isolated from high caries risk patients: A clinical study

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Abstract:

Nowadays, there is a great concern in alternative and complementary medicine; especially in antimicrobial agents extracted from natural plant sources. This clinical study was conducted to evaluate the anticariogenic potentials (if any) of green tea extract mouthwash on salivary cariogenic bacteria isolated from high caries risk patients. Twenty high caries risk patients (10 males and 10 females) were selected for this study. Stimulated saliva was collected before and after mouthrinsing with green tea extract**,** then the levels of salivary *mutans streptococci* and *lactobacilli* were measured using a commercial chair-side caries risk test kit (CRT® bacteria, Ivoclar Vivadent). The density of the *mutans streptococci* and *lactobacilli* colonies were compared with the corresponding model chart provided by manufacture. The colonies density was then expressed in colony forming units (cfu) guided by the manufacturer chart. The results of the present investigation showed a marked reduction of both *mutans streptococci* and *lactobacilli* after mouthrinsing with green tea extract. Student t-test showed a significant difference ($P<0.05$) between the recorded mean scores for both bacterial species before and after green tea extract mouthrinsing. This study provides an additional rationale for the inclusion of green tea extract mouthrinse as an adjunct to daily oral hygiene procedures especially for high caries risk patients.

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