

**ABSTRACT**

**INTRODUCTION:** Dental caries is claimed to be an ubiquitous and almost universal bacterial infection that has been afflicting mankind since the days of civilization. Mutans Streptococci are the surrogate marker for dental caries as they are implicated to be the initiators of the disease and their quantity in the saliva is directly related to the number of surfaces colonized by them. Any intervention that can hamper their growth and survival will negatively impact the initiation and progress of caries. Various antimicrobial agents have been tried and tested against these micro-organisms.

**AIM AND OBJECTIVES:** To compare the effect of 0.2% Chlorhexidine mouthrinse and 2% Green tea extract on the Mutans Streptococci level in saliva and salivary pH.

**MATERIALS AND METHODS:** It is a randomized, parallel arm, controlled trial designed to compare the effect of 2% Green tea extract with 0.2% Chlorhexidine mouthrinse on the Mutans Streptococci count in the saliva and salivary pH.

**RESULTS:** There was a statistically significant reduction in the Mutans Streptococci colonies in the saliva after 0.2% Chlorhexidine mouthrinse. There was a statistically significant reduction in the Mutans Streptococci colonies in the saliva after 2% Green tea extract mouthrinse. There is a rise in the salivary pH towards neutrality after rinsing with the 0.2% Chlorhexidine mouthrinse but this is not statistically significant. The inhibition of the fall in the salivary pH after 2% Green tea extract mouthrinse is clearly demonstrated and is statistically significant. Significant difference was observed between the Mutans Streptococcus Count (CFU/ml) before and after rinsing with 0.2% Chlorhexidine and 2% Green tea.

**CONCLUSION:** 0.2% Chlorhexidine mouthrinse is superior to 2% Green tea mouthrinse in the reduction of Mutans Streptococci in the saliva. However Green tea showed promising results with respect to the inhibition of the fall in the salivary pH after the sucrose challenge.

**DENTAL PUBLIC HEALTH SIGNIFICANCE:** Although the antibacterial efficacy of 2% Green tea is not as effective as the gold standard Chlorhexidine, it is devoid of adverse effects like staining and taste alteration. As Green tea showed an extraordinary acid inhibition property of preventing the rise in salivary pH after a sucrose challenge, it can be considered as a promising cost-effective alternate as a mouthrinse for long term use.

**KEY WORDS:**

Green tea, Mutans Streptococci, Chlorhexidine, Dental Caries.