

## ABSTRACT

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### INTRODUCTION

Oral deposits such as plaque and calculus have a huge impact on oral health related quality of life. In India oral diseases prevalence is very high, among which dental caries and gingival diseases are nonlife threatening and ubiquitous pathologies. *mutans* streptococci being the pioneer culprit in the initiation of oral diseases, any intervention that inhibit their growth and survival will have positive impact on oral health. Antibacterial agents of natural and synthetic origin have been tried and tested against these microorganisms.

### AIM AND OBJECTIVES

To compare the Antibacterial efficacy of 5% Neem, 10% Cinnamon and 0.2% Chlorhexidine on salivary *mutans* streptococci and its effect on plaque and gingival health.

### MATERIALS AND METHODS

It is a randomized, parallel arm, controlled trial designed to compare the effect of 5% Neem 10% Cinnamon mouthrinse with 0.2% Chlorhexidine on the salivary *mutans* streptococci and its effect on plaque and gingival health.

### RESULTS

There was a statistically significant reduction on salivary *mutans* streptococci colonies and gingivitis scores in the saliva after using 5% neem and 10% cinnamon mouthrinse ( $p < 0.05$ ).

Significant difference was observed between the *mutans* streptococci Count (CFU/ml) before and after rinsing with 5% neem 10% cinnamon, 0.2% Chlorhexidine.

### CONCLUSION

5% neem and 10% cinnamon was considerably efficacious in reducing the *mutans* streptococci count, plaque and gingivitis significantly, although not superior to the gold standard 0.2% Chlorhexidine.

### DENTAL PUBLIC HEALTH SIGNIFICANCE

Although the antibacterial efficacy of 5% neem and 10% cinnamon is not as effective as the gold standard Chlorhexidine, it showed considerable reduction on salivary *mutans* streptococci and improved plaque and gingival scores. 5 % neem and 10% cinnamon mouthrinse is devoid of adverse effects like staining and taste alteration , it can be considered as a promising cost-effective alternate as a anti cariogenic and antigingivitis mouthrinse for long term use.

**KEY WORDS:** Neem, Cinnamon, *mutans* streptococci, Gingival health