

Original Article

Correlation of the Effectiveness of an Herbal Mouth Rinse with a Chlorhexidine Mouth Rinse: An Original Study

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ABSTRACT:

Introduction: Mouthwashes are an accompaniment to, not a replacement for, standard brushing strokes and flossing. Chlorohexidine is a bis-biguanide that is both hostile to plaque and antibacterial properties. It has symptoms like tanish staining of teeth, taste irritation, oral mucosal ulceration, and so forth. Common herbs like triphala, tulsi, clove oil and numerous more have been utilized since ages either in general single herb or as a mix acting against different oral medical issues like draining gums, halitosis, mouth ulcers and averting tooth rot. **Aim:** The point of the present investigation was to think about the adequacy of an herbal mouth wash with chlorhexidine gluconate mouth wash at the clinical level in diminishing Streptococcus mutans. A randomized report was completed on 320 patients who had dental caries. **Method:** Out of which 160 subjects were given natural mouthwash to wash thrice daily for seven days. The other 160 were given 0.12% chlorhexidine mouthwash to wash thrice daily for seven days. Spit test were gathered preceding the utilization of mouth wash to check for the S.mutans count. **Results and Conclusion:** The after effects of the present investigation demonstrated that herbal mouthwash can cause restraint of bacterial development. Herbal medication is both promotive and preventive in its approach. The significant quality of these normal herbs is that their utilization has not been accounted for with any reactions till date. From this investigation herbal grown mouth wash is as compelling as the chlorhexidine gluconate flush as appeared in the result.

Key words: cleanliness; oral rinses; herbal; chlorhexidine.

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INTRODUCTION: Dental can be designated as the host related grid encased biofilm with various bacterial populaces, which cling to the tooth surfaces or different surfaces in the oral cavity. Their final results achieve instigation of tissue devastation and bone loss. Viable plaque control measures will achieve change in amount and organization of plaque biofilm.¹ Personal oral cleanliness has been kept up since old times as evident with the Chinese writing in 1600 BC utilizing biting sticks which was later reported by Hippocrates.² The mechanical plaque control inculcates the brushing of the tooth surfaces using an electric or a manual toothbrush or with the assistance of pressed water pump framework. The concoction control of plaque incorporates natural or inorganic chemicals, which repress the accumulation,

development and survival of flotsam and debris. The principle favorable position of chemicals and their activity relies upon expanded fixation in gingival crevicular liquid and spit, which enhances gingival health.³ An assortment of items are accessible synthetic plaque control, which are isolated into original, second era, and third era. Chlorhexidine is generally utilized in the form of a mouth wash. The antiplaque impact of Chlorhexidine and substantivity property has demonstrated the best quality level adequacy of Chlorhexidine. It is cationic wide range antimicrobial specialist, which primarily acts by forestalling pellicle development, and includes in destabilization of the external bacterial layer subsequently anticipating bacterial cell divider adsorption and authoritativeness of developed plaque.

Mouthwashes are an accompaniment to, not a replacement for, standard brushing strokes and flossing. Chlorohexidine is a bis-biguanide that is both hostile to plaque and antibacterial properties. It has symptoms like tanish staining of teeth, taste irritation, oral mucosal ulceration, and so forth. Common herbs like triphala, tulsi, clove oil and numerous more have been utilized since ages either in general single herb or as a mix acting against different oral medical issues like draining gums, halitosis, mouth ulcers and averting tooth rot. Proof demonstrates that the long-term day by day utilization of 0.12% chlorhexidine gluconate will diminish the plaque control. The point of the examination was to look at the adequacy of an herbal mouth rinse with Chlorhexidine Gluconate mouth rinse, which is thought to be the best quality level.

Aim: The point of the present investigation was to think about the adequacy of an herbal mouth wash with chlorhexidine gluconate mouth wash at the clinical level in diminishing *Streptococcus mutans*. A randomized report was completed on 320 patients who had dental caries.

Method: A randomized report was completed on 320 patients who had dental caries. Out of which 160 subjects were given natural mouthwash to wash thrice daily for seven days. The other 160 were given 0.12% chlorhexidine mouthwash to wash thrice daily for seven days. Spit test were gathered preceding the utilization of mouth wash to check for the *S. mutans* count. The herbal mouthwash consisted of aloe vera, triphala, tulsi, clove oil, natural flavors, and other ingredients. Salivation tests were gathered preceding the method in a sterile compartment. When the specimens are gathered they are sent to the lab to check for streptococcus mutans level by culture technique. Following seven days salivation tests were gathered from them in a sterile compartment and the mutans level were counted and categorized.

RESULTS: Comparison of the samples were made that were taken before the mouth rinses and after the mouth rinses.

Prior to the use of mouthwashes:

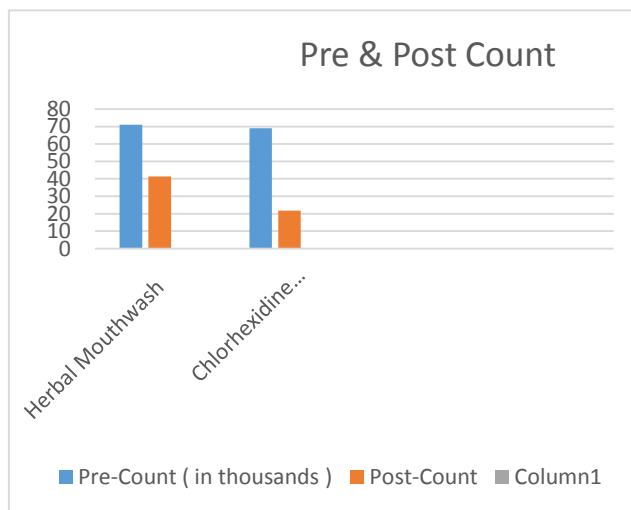
Mouthwash	Pre Count (Mean+/- SD)
Herbal mouthwash	71,893+/-15.7
Chlorhexidine mouthwash	69,812+/-18.1

After the use of mouthwashes:

Mouthwash	Post Count (Mean+/- SD)
Herbal mouthwash	41.3+/-11.9
Chlorhexidine mouthwash	21.7+/-13.3

DISCUSSION: The present investigation was intended to decide the adequacy of an herbal mouth rinse with 0.12% Chlorhexidine Gluconate mouthwash. Saliva is constantly invigorated, flushing ceaselessly the dynamic elements of mouth wash. However, plaque staying after mechanical

cleaning assimilates mouth wash antimicrobials, filling in as a repository to draw out the item's substantivity. Plaque, as often as possible, stays in gaps, interproximal spaces and at the gingival edge where antimicrobial action is required most. This hypothesis does not advance deficient oral cleanliness, but rather reduces the negative impacts of plaque abandoned and strengthens the advantages of mouth flush use in patients with poor plaque control.⁴ The high viability of chlorhexidine could be because of its bactericidal activity amid the season of utilization taken after by bacteriostatic activity because of adsorption at the tooth surface.



Ayurveda drugs have been utilized to treat oral maladies including periodontal infections. Oral washes with natural arrangement are utilized as a part of periodontal treatment to control plaque and irritation. As indicated by several studies, natural mouth wash have points of interest, for example, diminished reactions and more efficient when contrasted with chlorhexidine.^{5,6} They demonstrate mitigating, hostile to oxidant, and against microbial properties.

The aftereffects of the present investigation demonstrated that the herbal mouthwash can cause the hindrance of bacterial development. Bacterial plaques have been demonstrated to have a part in the etiology of dental caries and periodontal ailments. The utilization of mouth washes as disinfectants can help mechanical strategies to diminish plaques. According to many investigations that have been directed on the impacts of mouthwashes on oral miniaturized scale organism, the chlorhexidine mouth wash is the most unrivaled among all mouthwashes.⁷ Chlorhexidine mouthwash is more successful in lessening *S. mutans* in plaques shows the high hostile to microbial action of chlorhexidine mouthwashes. In the present examination, home grown mouth wash was checked for its antibacterial movement in correlation with chlorhexidine

mouth wash and results demonstrated that natural mouth wash is less powerful than regular mouth wash being used.

CONCLUSION: The after effects of the present investigation demonstrated that herbal mouthwash can cause restraint of bacterial development. Herbal medication is both promotive and preventive in its approach. The significant quality of these normal herbs is that their utilization has not been accounted for with any reactions till date. From this investigation herbal grown mouth wash is as compelling as the chlorhexidine gluconate flush as appeared in the result.

REFERENCES:

- 1) Haffajee AD, Smith C, Torresyap G, Thompson M, Guerrero D, Socransky SS. Efficacy of manual and powered toothbrushes (II). Effect on microbiological parameters. J Clin Periodontol. 2001; 28(10):947–54.
- 2) Carranza F, Shklar G. History of Periodontology. London: Quintessence; 2003. Ancient India and China; pp. 9–13.
- 3) Ciancio SG, Mather ML, McMullen JA. An evaluation of minocycline in patients with periodontal disease. J Periodontol. 1980; 51(9):530–4.
- 4) Otten MP, Busscher HJ, van der Mei HC, Abbas F, van Hoogmoed CG. Retention of Antimicrobial Activity in Plaque and Saliva following Mouthrinse Use in vivo. Caries Res. 2010; 44(5):459–464.
- 5) Dalirsani Z, Aghazadeh M, Adibpour M, Amirchagmaghi M, Pakfetrat A. *In vitro* comparison of the antibacterial activity of ten herbal extracts against *Streptococcus mutans* with chlorhexidine. J Appl Sci. 2011; 11(5):878–82.
- 6) Anupama D, Anil M, Surangama D. A clinical trial to evaluate the effect of triphala as a mouthwash in comparison with chlorhexidine in chronic generalized periodontitis patient. Indian J Dent Adv. 2010; 2:243–7.
- 7) Chitsazi M, Shirmohammadi A, BalayiE. Effect of herbal and chemical mouthrinse on periodontal indices; comparison of matricaria, persica and chlorhexidine. J Dent Shiraz Univ Med Sci. 2008; 8(4):54–60.

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