

Original Research

A comparative evaluation of Hiora vs Listerine mouthwash in cases of chronic gingivitis

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ABSTRACT:

Background: Periodontal diseases are chronic inflammatory conditions characterized by loss of connective tissue, alveolar bone resorption and formation of periodontal pockets as a result of the complex interaction between pathogenic bacteria and the host's immune response. The present study was conducted to compare Hiora and Listerine mouth wash in case of chronic gingivitis.

Materials & Methods: 60 patients of chronic gingivitis were divided into two groups of 30 each. Group I patients were given Listerine mouthwash and group II patients were given HiOra mouthwash. The plaque score was recorded daily for 10 days for both mouthwashes. **Results:** There were 20 males and 10 females in group I and 18 males and 12 females in group II. The mean plaque score in group I was 1.24 and in group II was 1.02. The difference was significant ($P < 0.05$).

Conclusion: Listerine mouth wash was found to be better in terms of controlling plaque score as compared to Hiora.

Key words: Hiora, Listerine, Plaque.

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INTRODUCTION

Periodontal diseases are chronic inflammatory conditions characterized by loss of connective tissue, alveolar bone resorption and formation of periodontal pockets as a result of the complex interaction between pathogenic bacteria and the host's immune response. Dental plaque is the primary etiologic factor in periodontal diseases and therefore, plaque control represents the cornerstone of good oral hygiene practice.¹

Various studies have proved the association of periodontitis and systemic diseases; including the cardiovascular diseases, adverse pregnancy outcomes, diabetes mellitus and respiratory diseases.² The oral health status of a well being is very essential as poor oral hygiene may predispose to underlying systemic diseases. In order to convey the use of oral hygiene aids and different plaque methods precise information should be enlightened by the dental health care provider. The most accustomed method for prevention of gingival diseases is by effective removal of supra

gingival plaque by personal oral hygiene practices like tooth brush and inter dental cleaning devices.³

Hiora is a herbal mouthwash (manufactured by the Himalaya Drug Company Makali, Bangaluru, India); each gram contains 5.0 mg of Pilu, 10 mg of Bibhitaka, 10 mg of Nagavalli (Piper betel), 1.2 mg of Gandhapura taila, 0.2 mg of Ela, 1.6 of Peppermint satva and 0.4 mg of Yavanisatva. It is claimed that it acts as an oral antiseptic and prevents tooth decay.⁴ It is also claimed to prevent bad breath and reduces plaque and gingivitis. Listerine, a mouthwash that contains phenolics such as thymol, euclyptol, menthol, and methyl salicylate, may retard plaque buildup and reduce gingivitis.⁵ The present study was conducted to compare hiora and Listerine mouth wash in case of chronic gingivitis.

MATERIALS & METHODS

The present study was conducted among 60 patients of chronic gingivitis of both genders. All patients were informed regarding the study and their consent was obtained. Patients particulars such as name, age, gender etc. was recorded. Patients were divided into two groups of 30 each. Group I patients were given Listerine mouthwash and group II patients were given HiOra mouthwash. Each subject was instructed to use 15 mL of the first mouthwash for 1 min twice daily (morning and evening) for 10 consecutive days, followed by a wash-out period of 15 days and then the second mouthwash for 10 consecutive days. The subjects were instructed not to drink coffee, wine or tea 1 h before or after using the mouthwash. The plaque score was recorded daily for 10 days for both mouthwashes. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Groups	Group I	Group II
Methods	Listerine	Hiora
M:F	20:10	18:12

Table I, graph I shows that there were 20 males and 10 females in group I and 18 males and 12 females in group II.

Graph I Distribution of patients

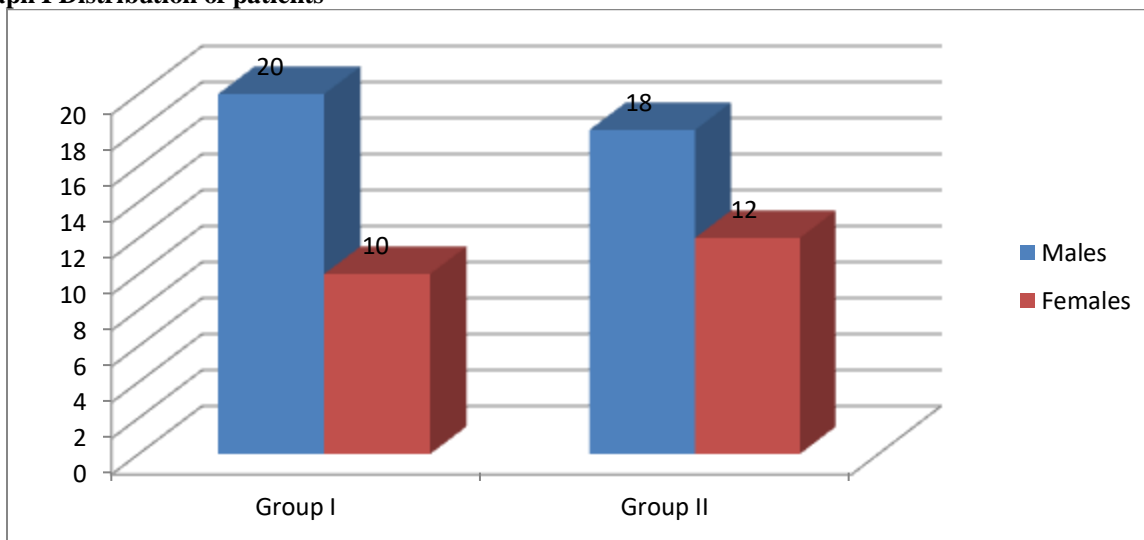
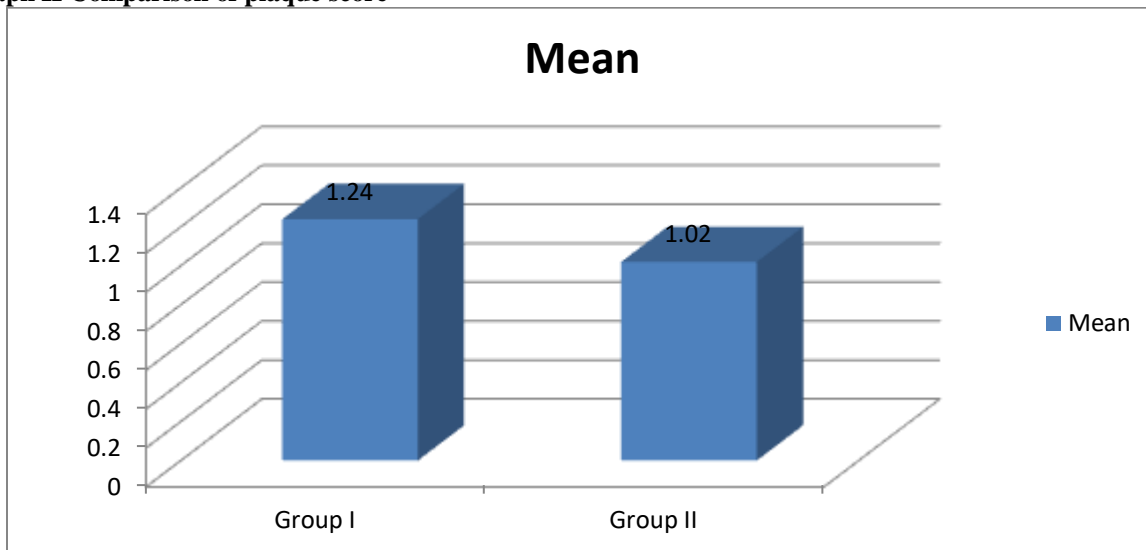


Table II Comparison of plaque score

Groups	Mean	P value
Group I	1.24	0.01
Group II	1.02	

Table II, graph II shows that mean plaque score in group I was 1.24 and in group II was 1.02. The difference was significant (P< 0.05).

Graph II Comparison of plaque score



DISCUSSION

Chlorhexidine (CHX) and Listerine are two very popular brands of mouthwashes that have always been prescribed by clinicians.⁶ Chlorhexidine (CHX) is regarded as the ‘gold standard’ antiplaque treatment and is particularly effective against gingivitis; however, most practitioners do not recommend the long-term and daily use of CHX as a mouthwash.⁷ This is mainly because of its side effects, such as objectionable taste, tooth discoloration, desquamation and soreness of the oral mucosa. It has antiplaque and antigingivitis effects similar to chlorhexidine but does not have the unwanted side effects of chlorhexidine, although there have been some complaints about its taste.⁸ Short-term and long-term clinical studies have indicated that the daily use of Listerine, a mouthwash reduce gingivitis.⁹ The present study was conducted to compare hiora and Listerine mouth wash in case of chronic gingivitis.

In present study, there were 20 males and 10 females in group I and 18 males and 12 females in group II. Gill et al¹⁰ compared the efficacy of a commercially available herbal mouthwash (HiOra) with that of an essential oil-containing mouthwash, Listerine. The subjects were randomly divided into two groups: A and B (n=15) and the study was divided into two phases. In phase 1, Listerine mouthwash was given to group A and HiOra mouthwash to group B. The plaque score was recorded with Turesky modification of the Quigley–Hein plaque index consecutively for 10 days. After 15 days of wash-out period, in phase 2 both groups were given the other mouthwash. The differences between plaque scores were statistically insignificant (P>0.05). The results showed that HiOra and Listerine mouthwashes yielded comparable results in plaque reduction.

We observed that mean plaque score in group I was 1.24 and in group II was 1.02. Ramamurthy et al¹¹

evaluated the effect of Hiora mouthwash versus Chlorhexidine mouthwash for the treatment of gingivitis. The study population was comprised 30 gingivitis patients. The patients were randomly categorized into two groups of 15 patients in each group. Group A was given Chlorhexidine mouthwash and Group B was given Hiora mouthwash. Pre-operative measurements such as plaque index (PI), gingival index (GI), and probing depth (PD), and loss of attachment (LA) were measured. Oral prophylaxis followed by the prescription of mouthwash was done. The patients were recalled for a review after 15 days, and post-operative measurements were recorded. From the statistical analysis in the experimental Group A and Group B, the mean values of PD, LA, GI, and PI were found to be significantly lower in the post-operative period than the pre-operative mean values. At the end of 15 days, almost comparable reduction in the amount of plaque and gingivitis was found in both Group A and Group B. Hence, the differences in efficacy of these two mouthwashes were non-significant. Hiora and Chlorhexidine mouthwashes were equally effective in the treatment of gingivitis.

Archana et al¹² evaluated the antiplaque and antigingivitis effects of Hiora in the treatment of plaque-induced gingivitis and found that it can be effectively used as an adjunct to mechanical therapy with less side effects. Likewise, Listerine mouthwash also proved to be effective as an adjunct to mechanical home care methods with significant reduction in plaque accumulation and gingivitis levels.

The shortcoming of the study is small sample size.

Conclusion

Authors found that Listerine mouth wash was found to be better in terms of controlling plaque score as compared to Hiora.

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