**Research Artícle** 

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### ABSTRACT

Ayurvedic drugs have been used since ancient times to treat diseases including periodontal diseases. Oral rinses made from Ayurvedic medicines are used in periodontal therapy to control bleeding and reduce inflammation. To evaluate the efficacy of herbal preparation (Irimedadi Taila) on reduction of plaque induced gingivitis, a total of 100 volunteers with clinical signs of mild to moderate gingivitis were selected. The patients were instructed to use 2-3 drops of Irimedadi Taila and gently massage the gums twice daily for 21 days. Results showed that gingival bleeding index. Irimediadi Taila is effective in treatment of plaque induced gingivitis and can be effectively used as an adjunct to mechanical therapy.

# INTRODUCTION

Periodontal diseases are among the most common infectious diseases affecting mankind. Plaque control measures include both mechanical (Toothbrushes, floss etc.) and Chemical methods (mouth washes). Herbal formulations are more appealing because they work without Alcohol. Several natural herbs such Green Tea, Tulsi, Ajwain, Turmeric, Neem, Alovera, Triphala, etc. have been effectively used in reducing plaque accumulation and gingival inflammation. Irimedadi Tela is one such produce which is less explored in treating gingival and periodontal diseases. Irimedadi Taila is indicated in almost all Danta Rogas including Stomatitis, Glossities, Apthous Ulcers, Dental Carries, Pyorrhea, Gingivitis etc.

## MATERIAL AND METHODS

#### **Selection Criteria**

The subject in the age group of 20-45 years diagnosed with plaque-induced Gingivitis and following criteria were selected for the study; minimum of 20 teeth present, presence of bleeding on probinge and patients who have not received any periodontal therapy during the past 6 months. Subject on antibiotics coverage for last 3 months, pregnant and lactating mothers were excluded, smokers and alcholic were also excluded.

### Study design

The study comprised of 100 patients who were randomly divided into two groups.

Group A (n=50): Patients treated by oral prophylaxis. Group B (n=50): patients treated by oral prophylaxis alongwith usage of irimedadi taila as an adjunctive. Plaque index, Gingival index and Gingival bleeding index was assessed on  $21^{st}$  day.

### RESULTS

In total 100 patients with plaque-induced gingivitis were included with 50 participants in each group. Mean ages of the participants in group A were  $22.5\pm3.4$  years (27 males and 23 females) and in Group B were  $23.8\pm1.8$ years (21 males and 29 females) respectively.

The result showed a significant reduction in plaque index, gingival index and gingival bleeding index, scores among both the group A and Group B with p<0.0001 (Table I). Further, an intergroup comparison, Group B showed a statistically significant reduction in all periodontal parameters with p<0.0001 (Table 2). However, relatively reduction in the mean plaque scores was more in Group A.

### Table 1:

	BEFORE	AFTER	p VALUE
Plaque Index			
Group A	1.39±0.37	$0.98 \pm 0.36$	< 0.0001
Group B	$1.044 \pm 0.414$	0.77±0.27	< 0.0001
Gingival Index			
Group A	1.33±0.41	1.006±0.39	< 0.0001
Group B	1.41±0.38	0.77±0.26	< 0.0001
Gingival Bleeding Index			
Group A	25.50±8.74	19.78±6.81	< 0.0001
Group B	23.3±5.26	16.54±4.75	< 0.0001

Table 2: Inter group comparison of mean differences of plaque index, Gingival Index and Gingival bleeding Index (unpaired and test).

	Group A	Group B	p Value
	Mean Difference	Mean Difference	
Plaque Index	$0.482 \pm 0.01$	$0.274 \pm 0.144$	0.0001
Gingival Index	0.324±0.02	0.37±0.12	0.0088
Gingival Bleeding index	5.72±1.93	6.76±0.51	0.0004

Along with statistically significant reduction in index scores, clinically the condition improved from moderate gingivitis to mild gingivitis.

Therefore, irimedadi taila as an adjunct is effective in reducing Gingival Index and Gingival bleeding index scores in comparison to scaling alone.

#### DISCUSSION

Dental carries and periodontal diseases are the two most common diseases that are primarily caused by dental plaque. Ayurvedic drugs since ancient times are being used to control bleeding and reduce inflammation and treat periodontal diseases. Irimedadi taila is one such medicine which is less explored to assess its dental health benefits. Hence, the present study assessed and compared the efficacy of Irimedadi taila in reduction of reduction of plaque-induced gingivitis. Irimedadi tails has Gayatri (Acacia catechu), Manjistha (Rubia Cordifolia), Til Oil (Seasum indicum), Clove (Syzygivm aromaticum), Arimaedah (Acacia farnesiana) and many ingredients. Due to these herbs, irimedadi tails is astringent, analgesic, anti-plaque, anti-gingivitis, antiinflammatory and anti microbial. So, this Avurvedic taila used in the study was effective in improving gingival health; however its bitter taste could pose a problem towards their compliance in long term usage. Thus the possibility of adding some flavoring or sweetening agents without compromising on the chemical properties of the ingredients has to be explored.

# CONCLUSION

Within the limits of this clinical study, it can be concluded that Irimedadi tails is effective is controlling plaque-induced gingivitis when used as an adjunct to mechanical plaque control measures. Furthermore, it can serve as a natural alternative for patients who wish to avoid alcohol and other side effects associated with chlorhexidine mouthwash.

#### REFERENCES

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