Evaluation of *Hypericum perforatum* mother tincture as an antigingivitis agent in comparison with Chlorhexidine: A randomised controlled trial

**Swet Nisha***, Debanjan Das, Paromita Goswami, Shashi Shekhar Shitanshu, Pratibha Shashikumar, Savan Sunari Rajaram

Departments of 1Periodontology and 2Conservative Dentistry and Endodontics, Haldia Institute of Dental Sciences and Research, Haldia, 3Department of Health and Family Welfare, Government of West Bengal, 4Department of Periodontology, JSS Dental College and Hospital, JSS Academy of Higher Education and Research, Mysuru, Karnataka, India

**Abstract**

**Background:** Homoeopathic medicine *Hypericum perforatum* (Hyper.) has antimicrobial, wound healing and anti-inflammatory activity. It has been used as an analgesic postextraction, for nerve pain, burning mouth syndrome singly, or in combination with other Homoeopathy medications. **Objective:** Evaluation of the efficacy of Hyper. Q in reducing dental plaque and gingival inflammation. **Materials and Methods:** Three hundred and eighteen participants with chronic gingivitis (probing depth ≤ 3 mm) and bleeding gums were recruited and allocated randomly into three groups (n = 106 each): Group A (saline mouthwash), Group B (Hyper.) and Group C (Chlorhexidine [CHX]). Clinical parameters: Plaque index (PI), gingival index (GI), sulcus bleeding index (SBI) and oral hygiene index simplified (OHIS) were measured at baseline, first, third and sixth month. **Results:** All the three groups showed a statistically significant reduction in the PI, GI, SBI and OHIS (P < 0.05) at 3 months. Intergroup comparison showed significant reduction in PI, GI, SBI and OHIS (P < 0.05) in Group C compared to Groups A and B. Group B showed a statistically significant reduction in all clinical parameters when compared to Group A (P < 0.05) after 3 months. At 6 months, all the groups showed statistically significant reduction (P < 0.05) in all the clinical parameters; however, intergroup comparison did not show significant difference (P > 0.05). **Conclusion:** The present study demonstrated that the use of Hyper. Q as mouthwash significantly reduces plaque and gingival inflammation as compared to saline as mouthwash. However, CHX was found better than Hyper. Future research on use of Hyper. Q, dosage, substantiability and antimicrobial properties is warranted for its potential clinical use.

**Keywords:** Antiplaque agents, Chlorhexidine, Dental Plaque, Gingivitis, Homoeopathy, *Hypericum perforatum*, Mouthwash

**Introduction**

Plaque accumulation can cause gingival inflammation around the teeth. When the plaque remains undisturbed, especially in inaccessible areas such as interdental regions, it can cause gingivitis and as the disease progresses towards the supporting tissues, it results in periodontitis. This disease progression needs to be halted. Scaling and root planing as mechanical therapy and adjunctive use of chemical plaque control agents is an effective treatment protocol in reducing plaque accumulation.[1] Oral hygiene measures lead to dislodgement of plaque and maintenance of periodontal health. Oral hygiene education and reinforcement is an essential part of supportive therapy. Mechanical and chemical methods of plaque control are required regularly during dental visits to reduce gingival inflammation and maintain periodontal health.

Antiplaque, antigingivitis, plaque reducing and antimicrobial agents have shown to alter the quality and quantity of plaque.[2] Chlorhexidine (CHX) has been used as antiplaque agent, and its antimicrobial and substantivity property helps to reduce microbial count for a long duration. However, unpleasant taste and tooth discoloration are common complaints seen in patients using CHX mouthwash. This greatly affects the patients’ compliance and treatment outcomes. In addition...
to this, their long-term use can cause excess supragingival calculus formation, soft-tissue lesions and allergic responses.[9] These drawbacks lead us in the search of effective antiplaque chemical agents which are having lesser side effects and are economical.

According to the World Health Organisation, about more than 80% of the people in developing countries avail traditional medicine for primary health care.[9] This gives us scope to research on potential traditional medicine which can be used in the prevention and treatment of various oral diseases.

Phytotherapy has gained popularity in the dental practice as it is economical, effective and has good patients’ compliance. Phytotherapy involves the use of plants as medicine, and it is widely used in the treatment of various diseases.[5] Studies have found that the use of both potentised form and mother tinctures of Aloe vera, Punica granatum Linn, Curcuma zeodoaria, Calendula officinalis, Hyper. and other herbal products as effective antiplaque agents.[3-7]

Hyper. has been used in dentistry in pain conditions. It belongs to the family Cusiaeeae, a perennial herb found in Asia and Europe, popularly known as “St. John’s wort” and in Hindi as “Bassant.” It contains active compounds such as hypericins, hyperforins and flavonoids and is used as anti-infective, anti-inflammatory, anti-microbial agent, antidepressant, neuroprotective, anti-cancerous, anti-HIV, immunomodulatory agent, spasmylytic, tonic, diuretic and anaesthetic remedies.[9]

Mathie and Farrer studied the outcomes of Homoeopathic prescriptions in dental practice, and they concluded in their pilot study that Homoeopathic medications had strong positive outcomes in the treatment of pericoronitis, periodontal infections, abscess and toothache.[9] In a randomised controlled trial, 300 mg Hyper. extracts (hypericin 0.31% and hyperforin 3.0%) were prescribed thrice daily for 12 weeks to burning mouth syndrome patients. The study participants experienced reduced pain and were better able to cope with their symptoms.[9] Tanideh et al. studied therapeutic efficacy of the topical and systemic administration of Hyper. extracts on chemotherapy-induced oral mucositis in golden hamsters and found significant relief and healing.[11] Sintar et al. assessed antimicrobial activities of Hyper. against Streptococcus mutans, Streptococcus sobrinus, Lactobacillus plantarum and Enterococcus faecalis and suggested strong antimicrobial activity of Hyper.[12] These studies suggest the antimicrobial, anti-inflammatory and host modulatory activity of Hyper., which makes it a potential medicine to use in periodontal infection.

A systematic review and meta-analysis on the use of Hyper. in dental pain suggests its potential use in dental pain conditions in combination with other Homoeopathic medications.[13] However, the effect of Hyper. alone as antigingivitis agent has not been evaluated by any clinical trials. Hence, this study aimed at the evaluation of the efficacy of Hyper. Q in reducing dental plaque and gingival inflammation.

**Materials and Methods**

**Study design**

A total of 318 participants from the department of periodontology with a chief complaint of bleeding gums for more than 1 month duration were recruited over a period of 1 year (December 2018–December 2019). This monocentric, single blind, triple-armed randomized controlled trial was approved by the Institutional Ethical Committee of Haldia Institute of Dental Sciences and Research, dated 7th February 2019 HIDSAR/ethics/2019/134a). The study was conducted in accordance with the Helsinki Declaration of 1975, as revised in 2013.[14] We had already started the study and so Clinical Trials Registry-India registration of the study was not done as the retrospective registration of the study cannot be done. Written informed consent was obtained from all the participants involved in this study by the treating periodontist. Participants aged between 18 and 55 years, diagnosed with gingivitis with probing depth (PD) ≤3 mm were included in the study. Participants having periodontitis, history of intake of any antimicrobial drug in the last 6 months, any systemic disease, smoking or tobacco chewing habits, history of allergy to herbal medication and pregnant women were excluded from the study. The history of systemic disease and allergy to herbal medication were reported as detailed by the participants themselves and accompanying attendants.

**Intervention**

The participants were randomly allocated into three groups (allocation ratio 1:1:1) as illustrated by the study flowchart in Figure 1.

1. **Group A** (negative control group) – Participants were instructed to rinse twice daily with 10 ml saline for 3 months.

2. **Group B** (verum group) – Participants were advised to use 2 ml of *Hyper.* Q (Dr. Willmar Schwabe Germany Home Pharmacy Pvt., Ltd [a GMP certified Manufacturer]) diluted with 8 ml of water (1:4) and rinse mouth twice daily.

3. **Group C** (positive control group) – Participants rinsed twice daily with 10 ml CHX 0.2% for 1 min (Rexidin; Warren, Indoco Remedies Ltd, India).

Each participant was advised to rinse with the mouthwash twice daily for 1 min, in the morning and at night time. No brushing, intake of food or water for half an hour post rinsing was instructed to the patients. Both the commercially available solution *Hyper.* Q with 1:4 water dilution and CHX were given to the patients in dark amber color bottle with no labels. Furthermore, the saline solution which was used as control was distributed in a similar bottle. The periodontist who performed the dental treatment handed the mouthwash to the patients after the completion of nonsurgical periodontal therapy (NSPT). The participants were completely unaware of the reagent present in the bottle.

**Periodontal treatment**

All the gingivitis patients received NSPT. The therapy
Nisha, et al.: Hypericum perforatum and gingivitis

Included oral hygiene education and instructions for the maintenance followed by supragingival scaling using ultrasonic scaler tips (woodpecker) and root planning using gracey curettes (Hu-friedy, Chicago, IL, USA). All the treatment procedures were completed in 48 hours, and they were instructed to use mouthwash for the next 3 months.

Clinical parameters measured
Clinical parameters measured were PI,[15] gingival index (GI),[16] sulcus bleeding index (SBI),[17] and oral hygiene index simplified (OHIS) at the baseline, 1 month, 3rd month and 6th month by the same clinician.

The Turesky Gilmore modification of the Quigley Hein plaque index (PI) measured the levels of dental plaque harbouring the tooth surface in the fluid-filled oral cavity. GI was used to assess the severity of gingivitis, SBI was helpful in evaluating the bleeding tendency in gingivitis patients, and OHIS assessed the personal oral hygiene status of an individual.

Williams O probe was used for all the clinical measurements.

Outcome assessments
The primary outcomes were SBI and PI, and the secondary outcomes were GI and oral hygiene index-simplified.

Sample size determination
The sample size was calculated based on the primary outcome of the present study. Considering two-tailed unpaired t-test with effect size of 0.5, power of the study as 0.8 and the allocation ratio 1:1. The calculated sample size was 265 (88 participants in each group). Attrition rate of 20% was expected, so the final sample size calculated was 318 (106 participants in each group).

Randomisation
Sample was randomised using the computerised random number generator, Prism 4.0 software package was used (GraphPad, La Jolla, CA, USA). Allocation ratio was 1:1:1. This was done by the investigator, and the participants were enrolled in the study by clinician at the study site.

Blinding
This was a single-blind study where the patients were kept masked about the allocation of the type of mouthwash in all the treatment groups.

The mouthwashes were dispensed in amber colour-coded bottles by a Homoeopathic practitioner not involved in any dental treatment, assessment or interaction with the patients. The periodontist handed the mouthwash bottles to the patients.
without revealing any details of the bottle content. The patients were suggested to open bottles after leaving the clinic and use twice daily for the next 6 months. In case the bottle got consumed, they were instructed to get the empty coded bottle to check the compliance of patients, and it was replaced by new coded bottle.

**Statistical analysis**

Kolmogorov–Smirnov test was used to assess the normal distribution of variables. Intergroup comparison of mean values was done using the one-way analysis of variance (ANOVA). Repeated-measure ANOVA was done for the intragroup comparison. Statistical analyses were performed with statistical software (SPSS for Windows, version 16.0, SPSS Inc., Chicago, IL, USA).

**Research hypothesis**

“There lies a significant reduction in the clinical parameters PI, GI, SBI and OHIS in gingivitis patients when HP mouthwash is used as an adjunct to NSPT in comparison to CHX and saline.”

**Null hypothesis**

“There is no significant reduction in clinical parameters PI, GI, SBI and OHIS in gingivitis patients when Hyper. Q mouthwash is used as an adjunct to NSPT in comparison to CHX and saline.”

**RESULTS**

Each group consisted of 106 participants, Group A with a mean age 38 ± 0.62 years, Group B with mean age 37 ± 0.74 years and Group C with mean age 35 ± 0.67 [Table 1]. No dropouts were there during the study period after allotment of the participants in the three groups and repeated oral hygiene reinforcement was performed in all the three groups. The baseline values in all the outcome parameters was comparable.

In all the three Groups A, B and C, significant reduction in both primary outcomes SBI and PI, and secondary outcomes GI and OHIS at 1 month, 3 months and 6 months were seen (P < 0.05) [Table 2].

**Comparison of plaque index**

The intragroup comparison showed significant reduction on plaque scores at 3 and 6 months follow-up in all the three groups (P < 0.05). Intergroup comparison showed significant reduction at 3 months in Group C when compared to Groups A and B (P < 0.05). However, post 6 months follow, no significant difference was observed in any three groups in terms of plaque score (P > 0.05) [Table 2].

**Comparison of gingival index**

Comparison of GI in both in intragroup and intergroup was significant (P < 0.05). Group C had significant changes when compared to Groups A and B. However, post 6 months follow ups, no significant difference was observed in any three groups in terms of GI score (P > 0.05) [Table 2].

**Comparison of sulcus bleeding index**

At 1 month, no significant reduction in bleeding index was seen in any groups (P > 0.05). In 3 months, both intragroup and intergroup comparison showed significant changes (P < 0.05) [Table 2].

**Comparison of oral hygiene index simplified**

In all the groups at 3 and 6 months, the OHIS score reduction was statistically significant (P < 0.05). Intergroup comparison showed significant reduction in OHIS score in Group C in comparison to Groups A and B (P < 0.05) at 3 months’ follow-up. However, intergroup comparison showed no significant changes at 6 months (P > 0.05) [Table 2].

**Adverse events**

Participants were instructed to report any unintended effects such as taste alteration, mucosal irritation no such incidence was reported from any group.

**DISCUSSION**

According to the WHO, Homoeopathy is the second most useful health-care system in the world having potential to heal diseases with minimal side effects. The use of Homoeopathic medications to improve periodontal health is inconclusive as few controlled dental Homoeopathic research studies have been conducted to date. Long-term use of systematic antibiotics as adjunctive to periodontal therapy remains controversial. New treatment approaches that can modify host response towards microbial challenge give scope of Homoeopathic medication interventions. In Homoeopathy, the routes of administration are similar to periodontal therapeutic agents except for minimal dose concept.

Dental plaque is a biofilm which harbours microorganisms causing periodontal tissue breakdown. Preventive measures target removal of biofilm by mechanical or chemical means. No method is considered superior and combination methods are preferred for oral hygiene maintenance. However, cost, unfavourable side effects, development of antibiotic resistance are major concern to patients’ compliance. CHX is widely used as an antiplaque agent. Various studies have compared CHX with other commercially available antimicrobial rinses and herbal mouthwash. However, longer duration administration can cause extrinsic staining of tooth, desquamation of the oral mucosa, enhanced supragingival calculus formation. In such conditions, substitution of CHX with other rinses like herbal or homoeopathic medications should be considered.

The present study demonstrated that the use of Hyper. Q as mouthwash significantly reduces plaque and gingival

---

**Table 1: Demographic parameters of different groups in the study**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years), mean±SD</td>
<td>38±0.62</td>
<td>37±0.74</td>
<td>35±0.67</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>52</td>
<td>57</td>
<td>61</td>
</tr>
<tr>
<td>Female</td>
<td>54</td>
<td>49</td>
<td>45</td>
</tr>
<tr>
<td>SD: Standard deviation</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Nisha, et al.: Hypericum perforatum and gingivitis

inflammation. As this is the first study to use Hyper. as antiplaque and antigingivitis agent direct comparison with other studies was not possible. However, Yusoff and Kamin used Calendula containing mouthwash and found it effective in reducing the Plaque scores.\cite{27}

Another study demonstrated reduces inflammation and tissue injury following the administration of Hyper. in periodontitis induced adult male Sprague–Dawley rats.\cite{28,29} Similar results were found in the present study, i.e., decreased bleeding score in Group B.

Damlar et al. used the extracts of Hyper. for healing of bone defects filled with xenografts in rabbits and found favourable results suggesting it regenerative potential.\cite{29,30} Another study evaluated wound healing of two species of Hyper. on cultured NIH3T3 fibroblasts and found that HP has healing capacity.\cite{30,31}

In the present study, the Hyper. Q mouthwash group showed significant reduction in PI, GI, SBI and OHIS score at 3rd and 6 months follow-up. This can be attributed to its antimicrobial property. Vollmer et al. used Hyper. Q as an adjunctive treatment of biofilm and showed significant photoactivation potential with ability to alter microbial diversity.\cite{28,31} Our study is in accordance with this study suggesting the role of Hyper. as an antigingivitis agent.

Hyper. has antimicrobial effect against oral biofilm.\cite{32} Studies have suggested immunomodulatory, antioxidant properties stimulating phagocytic activity of polymorphonuclear leukocytes, reduce oxidative stress and procytokine levels.\cite{33} Such effects suggest the therapeutic application of Hyper. Q in periodontal disease management and other oral diseases.

The use of Homoeopathy medications in periodontal treatment has been considered by various researchers. A recent study showed reduced PD, bleeding on probing and PI at 6 months follow-up and concluded that Homoeopathic medication as an adjunct to periodontal treatment has additional benefits.\cite{34} In the present study, although Hyper. group did not show significant reduction in the clinical parameters when compared to CHX group at 3 months’ follow up, but at 6 months’ follow up, no significant difference was seen between the two groups. This suggests that CHX might have more potential short-term benefits (3 months) as antigingivitis agent when compared to Hyper., but at 6 months, no intergroup difference was seen. Another randomised controlled trial on type II diabetic patients with Berberis vulgaris 6CH, Mercurius solubilis/Belladonna/Hepar sulphur 6CH and Pyrogenium 200CH as supplement along with periodontal treatment resulted insignificant glycaemic control and bleeding on probing, clinical attachment level and pocket PD.\cite{35}

### Table 2: Intragroup clinical parameter comparison

<table>
<thead>
<tr>
<th>Clinical parameter</th>
<th>Mean±SD</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Group A (saline)</td>
<td>Group B (HP)</td>
</tr>
<tr>
<td>Plaque index (months)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>2.32±0.16</td>
<td>2.41±0.11</td>
</tr>
<tr>
<td>1</td>
<td>1.85±0.13</td>
<td>1.97±0.13</td>
</tr>
<tr>
<td>3</td>
<td>1.67±0.14</td>
<td>1.55±0.15</td>
</tr>
<tr>
<td>6</td>
<td>0.95±0.24</td>
<td>0.92±0.12</td>
</tr>
<tr>
<td>p*</td>
<td>&lt;0.05</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Gingival index (months)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>2.27±0.13</td>
<td>2.32±0.12</td>
</tr>
<tr>
<td>1</td>
<td>1.86±0.16</td>
<td>1.67±0.15</td>
</tr>
<tr>
<td>3</td>
<td>1.56±0.12</td>
<td>1.49±0.16</td>
</tr>
<tr>
<td>6</td>
<td>0.87±0.11</td>
<td>0.85±0.10</td>
</tr>
<tr>
<td>p*</td>
<td>&lt;0.05</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Sulcus bleeding index (months)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>2.48±0.15</td>
<td>2.35±0.16</td>
</tr>
<tr>
<td>1</td>
<td>2.35±0.14</td>
<td>2.17±0.13</td>
</tr>
<tr>
<td>3</td>
<td>1.84±0.17</td>
<td>1.62±0.11</td>
</tr>
<tr>
<td>6</td>
<td>0.92±0.13</td>
<td>0.89±0.12</td>
</tr>
<tr>
<td>p*</td>
<td>&lt;0.05</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>OHIS (months)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>2.68±0.34</td>
<td>2.69±0.16</td>
</tr>
<tr>
<td>1</td>
<td>2.42±0.25</td>
<td>2.39±0.10</td>
</tr>
<tr>
<td>3</td>
<td>0.78±0.15</td>
<td>0.75±0.13</td>
</tr>
<tr>
<td>6</td>
<td>0.66±0.13</td>
<td>0.62±0.11</td>
</tr>
<tr>
<td>p*</td>
<td>&lt;0.05</td>
<td>&lt;0.05</td>
</tr>
</tbody>
</table>

In a review on the use of Homoeopathy medications in dentistry, Arsenicum album and Ferrum phosphoricum were suggested in severe gingivitis. Hyper was suggested in case of post-operative nerve pain. Furthermore, they suggested the use of low potency medication for acute cases as they have shorter duration of action and higher potency medications for chronic cases.

A clinical study by Reddy et al. on the effect of Plantago extract toothpaste in gingivitis results in significant mean reduction in PI, GI and BOP at 6 months’ follow-up. Since the study participants did not undergo any additional dental treatment, this can be considered intervention by Homoeopathic medication as monotherapy. In the present study, Hyper: Q mouthwash was administered along with NSPT. Monotherapy along with the placebo in one arm can give us a better understanding of a medication efficacy; however, ethical issues need to be addressed also. Furthermore, mechanical therapy is the treatment protocol in patients with gingivitis and any other medications in any form can be used as an adjunct. The present study was designed keeping in view of this protocol, and we encourage patients to undergo dental treatment to remove the biofilm and use of mouthwash as an adjunct to mechanical therapy and also as supportive therapy.

The strength of the present study was the adequate sample size taken for the determination of the objectives of the study. The effectiveness of the Homoeopathic medication as an antigingivitis and antiplaque agent was assessed and also compared with the gold standard CHX mouthwash. Limitations of the present study are the study design, a crossover study having wash off period would eliminate the bias due to host response. A longer study period would help in evaluating the advantages and disadvantages of Hyper: as mouthwash. Antimicrobial activity, substantivity and plaque inhibition of Hyper: are other parameters which need to be explored. In the present study, Hyper: was used in mother tincture form in water in 1:4 for gingivitis and normal saline as negative control and CHX as positive control. Alcohol is present as a vehicle in the Hyper: mother tincture and its potential effect in control of gingivitis cannot be ascertained.

**Conclusion**

Hyper: Q reduced gingival inflammation significantly (P < 0.05). However, CHX was observed significantly better in terms of GI and PI compared to Hyper: in which GI and PI were seen at 3 months follow up. Further, longitudinal studies and use of Hyper: as monotherapy, its antimicrobial activity and its substantivity should be evaluated. Mostly, the Homoeopathic medications are used as adjunctive to interventional dental treatments including scaling and/or conventional medications. This protocol results in difficulty to evaluate the specific benefits of Homoeopathic medicine alone. Future periodontal research with Homoeopathic medications should focus on its use as monotherapy with regard to its antimicrobial, anti-inflammatory and immunomodulatory properties in acute and chronic dental conditions.
Nisha, et al.: Hypericum perforatum and gingivitis


Évaluation de la teinture mère de Hypericum perforatum comme agent anti-gingivite par rapport à la chlorhexidine - Un essai contrôlé randomisé.

**Contexte** : Hypericum perforatum (Hyper.), a une activité antimicrobienne, cicatrisante et anti-inflammatoire. Il a été utilisé comme analgésique après extraction, pour les douleurs nerveuses, le syndrome de la bouche brûlante, l’irritation buccale, en monothérapie ou en association avec d'autres médicaments contre l'homéopathie. **Objectif** : Évaluation de l'efficacité de la teinture mère hyper. (HPMT) pour réduire la plaque dentaire et l'inflammation gingivale. Les méthodes : 318 sujets souffrant de gingivite chronique (profondeur de sondage (PD) ≤3 mm) et de gencives qui saignent ont été affectés : Groupe A (n=106, bain de bouche saline), Groupe B (n=106, HPMT), Groupe C (n=106, Chlorhexidine (CHX)). Les paramètres cliniques : l'indice de plaque (IP), l'indice gingival (GI), l'indice de saignement du sillon (SBI) et l'indice d'hygiène bucco-dentaire simplifié (OHIS) ont été mesurés avant, au premier, troisième et sixième mois. **Résultats** : Les trois groupes ont montré une réduction statistiquement significative des IP, GI, SBI, OHIS (p<0,05) à 3 mois. De plus, la comparaison entre les groupes a montré une réduction significative des IP, GI, SBI, OHIS (p<0,05) dans le groupe C par rapport aux groupes A et B. Le groupe B a montré une réduction statistiquement significative de tous les paramètres cliniques par rapport au groupe A (p<0,05) après 3 mois de suivi. À 6 mois, tous les groupes ont montré une réduction statistiquement significative (p<0,05) de tous les paramètres cliniques, mais la comparaison entre les groupes n'a pas montré de différence significative (p>0,05). **Le Conclusion** : Le rince-bouche Hyper. s'est avéré efficace pour réduire l'inflammation gingivale par rapport à une solution saline comme rince-bouche. Cependant, la chlorhexidine s'est révélée plus efficace que le bain de bouche Hyper. pour réduire l'inflammation gingivale après trois mois de suivi. Les futures recherches sur le dosage de l'Hyper., sa substance active, ses propriétés antimicrobiennes pourraient donner un aperçu de son utilisation potentielle dans la réduction de l'inflammation gingivale.
Evaluación de la tintura materna Hypericum perforatum como agente antigingivitis en comparación con la clorhexidina una ensayo controlado aleatorizado

Antecedente: Hypericum perforatum (Hyper.), tiene actividad antimicrobiana, curativa de heridas y antiinflamatoria. Se ha utilizado como una post extracción analgésica, para el dolor nervioso, el síndrome de la boca ardiente como monoterapia o en combinación con otros medicamentos de Homeopatía. 

Objetivo: Evaluación de la eficacia de Hyper. tintura materna (HPMT) en la reducción de la placa dental y la inflamación gingival. 

Métodos: Se reclutaron 318 sujetos con gingivitis crónica (profundidad de sondeo (PD) ≤3 mm) y encías sangrantes, que se asignaron a: Grupo A (n=106 enjuague bucal salino), Grupo B (n=106, HPMA), Grupo C (n=106, clorhexidina (CHX)). Parámetros clínicos: El índice de placa (IP), el índice gingival (GI), el índice de sangrado del surco (OSI) y el índice de higiene oral simplificado (OHIS) se midieron a inic del estudio, al primer, tercer y sexto mes. Resultados: Los tres grupos mostraron una reducción estadísticamente significativa en el IP, GI, OSI, OHIS (p<0.05) a los 3 meses. Además, la comparación entre grupos mostró una reducción significativa en el PI, GI, OSI, OHIS (p<0.05) en el grupo C en comparación con el grupo A y el grupo B. El grupo B mostró una reducción estadísticamente significativa de todos los parámetros clínicos en comparación con el grupo A (p<0.05) después de 3 meses de seguimiento. A los 6 meses, todos los grupos mostraron una reducción estadísticamente significativa (p<0.05) en todos los parámetros clínicos, sin embargo la comparación entre grupos no mostró ninguna diferencia significativa (p>0.05). Conclusión: Hyper. enjuague bucal fue eficaz en la reducción de la inflamación gingival en comparación con la solución salina como enjuague bucal. Sin embargo, clorhexidina era mejor que Hyper. en la reducción de la inflamación gingival a los 3 meses de seguimiento. Futura investigación sobre la dosis de Hyper., su sustancialidad, propiedades antimicrobianas pueden dar una idea de su uso potencial en la reducción de la inflamación gingival.

Bewertung von Hypericum perforatum Urtinktur, als antigingivitis-agent im Vergleich zu Chlorhexidin – Eine randomisierte kontrollierte Studie.


Methoden: 318 Probanden mit chronischer Gingivitis (Sondierungstiefe (PD) ≤3 mm) und Zahnschleimhautentzündungen wurden rekrutiert und zugeordnet: Gruppe A (n=106 Kochsalzlösung), Gruppe B (n=106, HPMT), Gruppe C (n=106, Chlorhexidin (CHX)). Klinische Parameter: Plaque-Index (PI), Gingivalindex (GI), Sulcus-Blutungsindex (SBI) und Mundhygieneindex-Index (OHIS) wurden zu Studienbeginn, im ersten, dritten und sechsten Monat gemessen. Ergebnisse: Alle drei Gruppen zeigten eine statistisch signifikante Reduktion der PI, GI, SBI, OHIS (p<0,05) nach 3 Monaten. Darüber hinaus zeigte der Intergruppenvergleich eine signifikante Reduktion von PI, GI, SBI, OHIS (p<0,05) in Gruppe C im Vergleich zu Gruppe A und B. Gruppe B zeigte eine statistisch signifikante Reduktion aller klinischen Parameter im Vergleich zu Gruppe A (p<0,05) nach 3 Monaten Follow-up. Nach 6 Monaten zeigten alle Gruppen eine statistisch signifikante Reduktion (p<0,05) in allen klinischen Parametern, der Intergruppenvergleich zeigte jedoch keinen signifikanten Unterschied (p>0,05). Schlussfolgerung: Hyper. mundwasser war wirksam bei der Verringerung von Zahnschleimhautentzündungen im Vergleich zu Kochsalzlösung als Mundwasser. Chlorhexidin war jedoch besser als Hyper. bei der Verringerung der Zahnschleimhautentzündung nach 3 Monaten Follow-up. Zukunftige Forschung zur Dosierung von Hyper., seine Substantialität, antimikrobielle Eigenschaften können Einblick in seine mögliche Verwendung bei der Verringerung von Zahnschleimhautentzündungen geben.

与洗必泰–随机对照试验相比，贯叶连翘母酊作为抗原性vitis剂的评价。

背景: 贯叶连翘(金丝桃:)，具有抗菌、伤口愈合和抗炎活性。它已被用于消炎、疼痛、烧嘴综合征作为单一疗法或与其他顺势疗法药物的组合。目标: 评价Hyper的功效。母酊(HPMT)在减少牙菌斑和牙龈炎。

方法: 318名患有慢性牙龈炎（探测深度（PD）≤3mm）和牙龈出血的受试者被招募并分配给：A组（n=106盐水漱口水），B组（n=106，HPMT），C组（n=106，氯己定（CHX）)。临床参数: 牙菌斑指数(PD)，龈指数(GI)，沟唱出血指数(SBI)和简化口腔卫生指数(OHIS)在基线、第一、第三和第六个月测量。结果: 所有三组均在3月时显示PI, GI, SBI, OHIS (p<0.05) 的统计显着减少。此外，组间比较显示PI, GI, SBI, OHIS显着减少(p<0.05)。结论: 洗必泰有效地减少牙龈炎显着(p<0.05)，但组间比较无显着性差异(p>0.05)。然而，洗必泰优于Hyper。在减少牙龈炎3个月随访。超剂量的未来研究。