BDA LIBRARY MEDLINE SEARCH
CLOVES USE IN DENTISTRY

To request copies of any of these articles please use one of our request forms. Articles can be emailed or posted for a charge of £2.50 each.

Database: Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations and Ovid MEDLINE(R) <1946 to Present>
Search Strategy:
--------------------------------------------------------------------------------
1 cloves.tw. (230)
2 limit 1 to dentistry journals (6)
3 (dental$ or dentist$ or (oral adj health) or tooth$ or teeth).ti. (179713)
4 exp Toothache/ (2332)
5 3 or 4 (180790)
6 1 and 5 (2)
7 2 or 6 (6)
8 limit 7 to english language (4)
9 from 8 keep 2-4 (3)
10 exp Eugenia/ (452)
11 5 and 10 (1)
12 limit 10 to dentistry journals (6)
13 limit 12 to english language (6)
14 9 or 13 (9)

********************************************************************************

Unique Identifier
24320906
Status
MEDLINE
Authors
Kumari M; Naik SB; Martande SS; Pradeep AR.
Authors Full Name
Duhan, J; Tewari, S; Sangwan, P; Yadav, A; Singh, G; Juneja, R; Saini, H.
Institution
Gupta,A. Department of Conservative Dentistry & Endodontics, Post Graduate Institute of Dental Sciences, Rohtak, Haryana, India.
Title
Comparative evaluation of antimicrobial efficacy of Syzygium aromaticum, Ocimum sanctum and Cinnamomum zeylanicum plant extracts against Enterococcus faecalis: a preliminary study.
Source
Local Messages
THIS JOURNAL IS AVAILABLE IN THE BDA LIBRARY
Abstract
AIM: To evaluate the antimicrobial efficacy of Ocimum sanctum, Cinnamomum zeylanicum, Syzygium aromaticum and 3% sodium hypochlorite (NaOCl) against Enterococcus faecalis in planktonic suspension and biofilm phenotypes.

METHODOLOGY: The antibacterial efficacy of different concentrations of aqueous ethanolic extracts of O. sanctum, C. zeylanicum and S. aromaticum against E. faecalis at various time
To request copies of any of these articles please use one of our request forms. Articles can be emailed or posted for a charge of £2.50 each.

**INTRODUCTION:** Many essential oils have been advocated for use in complementary medicine for bacterial and fungal infections. However, few of the many claims of therapeutic efficacy have been validated adequately by either in vitro testing or in vivo clinical trials.

**OBJECTIVE:** To study the antibacterial activity of nine commercially available essential oils against *Streptococcus mutans* in vitro and to compare the antibacterial activity between each material.

**METHODOLOGY:** Nine pure essential oils; wintergreen oil, lime oil, cinnamon oil, spearmint oil, peppermint oil, lemongrass oil, cedarwood oil, clove oil and eucalyptus oil were selected for the study. *Streptococcus mutans* was inoculated at 37°C and seeded on blood agar medium. Agar well diffusion assay was used to measure antibacterial activity. Zone of inhibition was measured around the filter paper in millimeters with vernier caliper.

**RESULTS:** Cinnamon oil showed highest activity against *S. mutans* followed by lemongrass oil and cedarwood oil. Wintergreen oil, lime oil, peppermint oil and spearmint oil showed no antibacterial activity.

**CONCLUSION:** Cinnamon oil, lemongrass oil, cedarwood oil, clove oil and eucalyptus oil exhibit antibacterial property against *S. mutans*.

**CLINICAL SIGNIFICANCE:** The use of these essential oils against *S. mutans* can be a viable alternative to other antibacterial agents as these are an effective module used in the control of both bacteria and yeasts responsible for oral infections.
Activity of in vitro forms of dentifrices containing the hydroalcoholic extract of the ripe fruit of Eugenia uniflora L. (Surinam cherry) on cariogenic bacteria.

Source

Abstract
The aim of this study was to evaluate the in vitro activity of dentifrices containing the hydroalcoholic extract of the ripe fruit of Eugenia uniflora L. (Surinam cherry) on Streptococcus oralis (ATCC 10557) and Lactobacillus casei (ATCC 7469). Five dentifrices were used: D1: containing hydroalcoholic extract of Eugenia uniflora L.; D2: containing fluoride and hydroalcoholic extract of Eugenia uniflora L.; D3: containing triclosan and hydroalcoholic extract of Eugenia uniflora L.; D4: containing triclosan, fluoride and hydroalcoholic extract of Eugenia uniflora L.; D5: positive control (Colgate Total 12). To determine the antibacterial activity, the technique used was the minimum inhibitory concentration by the diffusion method in solid culture medium. At the concentration 0.05 g/mL, the best results were achieved with D1 (18 mm) and D4 (24 mm) on L.casei, and with D3 (19 mm) on S. oralis. The dentifrices D3 and D4 were found to have greater activity on the Streptococcus oralis, while D4 and D1 were found to have greater activity on Lactobacillus casei. It is concluded that dentifrices with Eugenia uniflora L. have antimicrobial activity, suggesting that clinical trials should be conducted.

Publication Type
Journal Article.
Date Created
20111020
Year of Publication
2011

A study was conducted to compare the efficiency of crude aqueous (CA) and solvent extracts (CM) of clove on the caries-inducing properties of Streptococcus mutans. The cariogenic properties investigated included the cell adhesion, cell-surface hydrophobicity and glucan synthesis activities of S. mutans. There was a significant difference between the effect of the CA and CM extracts on the adhesion of S. mutans (P < 0.05) within a concentration range of 5-15 mg/ml, the CM extract demonstrating a slightly higher inhibitory effect. However, the effect of the CM extract on the cell-surface hydrophobicity of S. mutans was weaker than that of the CA extract. The two extracts were found to reduce the synthesis of water-insoluble glucan (WIG) by almost 50% at a concentration as low as 0.5 mg/ml and the CM extract exhibited a significantly higher inhibitory effect than the CA extract (P < 0.05). The present findings indicate that both the CA and CM extracts exert inhibitory effects on the cariogenic properties of S. mutans and that the CA extract is as equally effective as the CM extract.

Publication Type
Date Created
20061006
Year of Publication
2006

In vitro antimicrobial activity of plant extracts and propolis in saliva samples of healthy and periodontally-involved subjects.

Source

Abstract
The aim of the present study was to determine, in vitro, the antimicrobial effect of plant extracts and propolis in saliva samples of healthy and periodontally-involved subjects.

Source
Spearman correlation coefficient, while differences in the effects of the extracts in periodontally healthy and diseased subjects were tested using Student's t-test. The highest means, in terms of size of microbial inhibition zones (cm) were obtained with chlorhexidine, followed by pure propolis, clove, and sage in subjects with periodontal health (1.35 +/- 0.22, 1.20 +/- 0.20, 0.94 +/- 0.14 and 0.44 +/- 0.38, respectively) or disease (1.38 +/- 0.23, 1.17 +/- 0.21, 0.94 +/- 0.07 and 0.78 +/- 0.07, respectively). There was a positive correlation between the inhibitory action of 11% propolis (w/v) and chlorhexidine (rho = 0.735, p < 0.001) in diseased subjects. The antimicrobial effects of clove and sage, particularly the latter, were less marked in comparison to propolis and chlorhexidine in both groups of subjects. In conclusion, propolis showed significant antimicrobial properties in saliva samples from periodontally healthy and diseased subjects, suggesting that this substance may be used therapeutically in the future to inhibit oral microbial growth.