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THE COMBINATION OF SALVADORA PERSICA L. (Sp) AND GREEN TEA (Gt) AQUEOUS EXTRACTS FOR SYNERGISTIC ANTI-PLAQUE ACTIVITY

The Idea

preparing a mouth-rinse to control dental plaque by using natural plant extracts (commercial green tea and *Salvadora persica* chewing sticks)



Novelty

Is the first study investigated the anti-plaque effect (both *in vitro* and *in vivo*) of a combination between green tea and *Salvadora persica* aqueous extracts (DTC1)

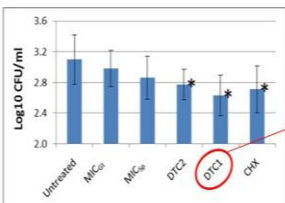


Figure 1 Log₁₀ CFU/ml of mixture of bacteria adhered to experimental pellicles treated with different solutions. * Statistical analysis of Mann Whitney test showed DTC1, DTC2 and 0.12% chlorhexidine (CHX) to be significant with $p < 0.003$

- Dilute test combination 1 significantly reduced attached primary colonizers to experimental pellicles *in vitro*.
- Better effect than CHX, but non-significant

▶ MORE INFORMATION

MEGA-TREND

- From Fat to Fit: Health, Wellness and Well Being (HWW)
- Healthcare
- Pharmaceuticals & Therapeutics

TECHNOLOGY READINESS LEVEL (TRL)

- TRL 6 (Full system Pilot - simulation environment in lab/ pre-clinical trials under controlled clinical conditions)

PATENT/ GRANTED NUMBER

- PI 2015704777

▶ TECHNOLOGY OVERVIEW

The present invention relates generally to an aqueous extract composition for synergistic anti-plaque activity. Accordingly, the aqueous extract composition includes combination of 0.25mg/ml green tea (Gt) aqueous extract and 7.82mg/ml *Salvadora persica* L. (Sp) aqueous extract, that is equivalent to 1/4 and 1/2 of MIC values of Gt and Sp aqueous extracts respectively, wherein the combination of Gt and Sp aqueous extracts enables to significant synergistic anti-bacterial and anti-adherence efficacy.

It should be noted that by rinsing 15ml of the combination of the Gt and Sp aqueous extracts for 30 seconds twice/day is capable to significantly reduce plaque accumulation after 24 hours re-growth, where anti-plaque effect of the said combination is significantly better than non-alcoholic 0.12% Chlorhexidine (CHX).

CONTACT US!

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