Streptococcus mutans – one of the main culprits

Shortcomings of mechanical plaque control include compliance, dexterity, and inadequate cleaning in inaccessible areas

Increased bacterial resistance is one of the undesirable side effects of chemotherapeutic agents

A clinical trial showed the antibacterial efficacy of tulsi against streptococcus mutans, when used as a mouthrinse.

TULSI (OSCIMUM SANCTUM)

- Is a holy herb easily available in courtyard
- It possess antibacterial, antioxidant, and anti-inflammatory properties

Though literature search revealed, no studies assessing the antibacterial efficacy of Tulsi dentifrice against salivary Streptococcus mutans.

AIM OF THE STUDY

To evaluate the efficacy of 4% Tulsi extract dentifrice, commercially available fluoridated dentifrice, and placebo dentifrice on salivary Streptococcus mutans counts among 14-15-year-old school children in Davangere city.

null hypotheses

There is no difference in the antibacterial efficacy of 4% Tulsi extract, and commercially available fluoridated and placebo dentifrices among school-going children aged 14-15 years in Davangere city.

discussion

To the researcher’s best knowledge, this is the first study of its kind to assess and compare the antibacterial efficacy of 4% Tulsi extract incorporated in the form of dentifrice.

- The antibacterial efficacy of tulsi is attributed to its compounds like Carracrol and Tepetene.
- At least one caviatived active carious lesion was selected because S. mutans count >10^6 colony-forming units (CFU)/ml of saliva is related to higher caries risk.
- The strengths of the study include the block randomisation method, concealed random allocation, and triple blinding. These methods reduced selection bias, allocation bias, and confounder bias. The oral hygiene technique was standardised for all the participants. Tulsi extract was used as dentifrice for brushing, which is a routine behaviour universally performed.
- The compliance was assessed directly through the checklist and indirectly by assessing the dentifrice tubes of each participant.

conclusion

4% Tulsi dentifrice showed significant reduction in the salivary Streptococcus mutans counts as compared to the Fluoridated and Placebo dentifrices.

acknowledgement

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references