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SHRI
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**SHRI DHARMASTHALA MANJUNATHESHWARA UNIVERSITY,
DHARWAD, KARNATAKA**

**EFFECTIVENESS OF SODIUM FLUORIDE, STANNOUS FLUORIDE
AND SODIUM MONOFLUOROPHOSPHATE CONTAINING
DENTIFRICE ON DENTAL PLAQUE AND GINGIVITIS: A CLINICAL
TRIAL.**

By

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DR.PREETHA J SHETTY

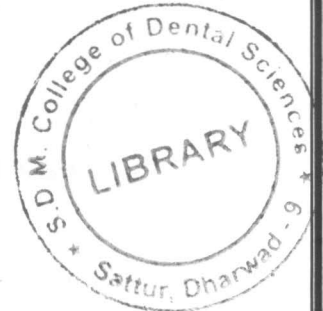
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ABSTRACT

Background and Objectives: Dental caries and Gingivitis are the two most common dental diseases globally. Mechanical plaque control is one of the best ways of preventing gingival diseases. In-vitro studies have revealed that fluoride possess anti plaque properties as it acts on the plaque bacterial enzymes, hence it preventing gingivitis. Therefore, the aim of the present study was to compare the effectiveness of three commonly used fluorides i.e, Sodium Fluoride (NaF), Stannous Fluoride (SnF_2), and Sodium monofluorophosphate(Na_2PFO_3) containing dentifrice on Dental plaque and Gingivitis.

Methods: This randomized double blinded, three arm parallel study was conducted among 120 subjects between the age of 15-30 years for the duration of 3months. Subjects were given fluoride free toothpaste as washout product to be used for 2 weeks. After 2 weeks baseline examination of plaque and gingival condition was done with Quigley-Hein plaque index (PI) and Loe and Sillness Gingival Index (GI). Subjects were randomized into 3 groups of 40 each: Group I-NaF toothpaste, Group II- SnF_2 toothpaste and Group III- Na_2PFO_3 toothpaste to be used twice daily for a period of 3 months. Assessment was done at every month for 3 consecutive months.

Results: At the end of 3 month all the three groups showed significant reduction in both Plaque and Gingival scores compared to baseline. ANOVA test results reveals that there was no significant difference in baseline, first, second and third follow-up plaque and gingival scores between the 3 groups. However when adjusted for baseline values significant difference was observed between the three groups at second ($p=0.031$) and third follow-up($p=0.046$) for plaque scores.

Conclusion: At the end of study there was overall significant reduction in plaque and gingival scores in all three groups compared to baseline but, there was no significant difference in the effectiveness of Sodium fluoride, Stannous fluoride and Sodium mono-fluorophosphate toothpaste against plaque and gingivitis.

Keywords: Fluorides, Toothpaste, Sodium fluoride, Tin fluoride, Sodium monofluorophosphate, Gingivitis, Dental plaque.