

A Randomized Clinical Trial on the Efficacy of 5% Fluorocalcium Phosphosilicate Containing Novel Bioactive Glass Toothpaste.

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Background And Aim: Dentin hypersensitivity (DH) is a common and harrowing dental condition. A Novel Biomin-F technology that contains 5% Fluorocalcium phosphosilicate bioactive glass has been introduced. It forms Fluorapatite which is more stable towards acid erosion. There is a lack of literature with the utility of this toothpaste in treating DH. Therefore, the authors of this randomized clinical trial have aimed to compare and evaluate the efficacy of 5% Fluorocalcium Phosphosilicate with an 8% Arginine and Calcium carbonate and Placebo toothpaste.

Methods: A total of 75 patients clinically diagnosed with DH were randomly divided into Group A: 5% Fluorocalcium Phosphosilicate, Group B: 8% Arginine and Calcium carbonate, and Group C: Placebo. The DH was evaluated by tactile and evaporative stimuli and a visual analog scale (VAS) was used for evaporative stimuli at Pre-baseline, Baseline (15 days) and Post-baseline (1 month).

Results: The results showed symptoms of DH were reduced in all three groups. However, Group A showed a better reduction of DH than the other two groups.

Conclusion: The toothpaste containing 5% Fluoro Calcium Phosphosilicate was reported to be more efficacious than the other two toothpastes in managing DH.

Practical Implications: This novel development opens up a unique opportunity in the prevention and management of DH and may also be beneficial in preventing acid erosion of the tooth surface and in the maintenance of oral hygiene by reducing the effects of plaque accumulation and gingival inflammation. This article is protected by copyright. All rights reserved.