

EFFICACY OF A DESENSITIZING MOUTHWASH AND ITS EFFECTS ON DENTINAL TUBULES

- A CLINICAL AND SEM STUDY

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Dentinal hypersensitivity is described clinically as an exaggerated response to non-noxious stimuli. It is characterised by pain of short duration arising from exposed dentin in response to stimuli, typically thermal, evaporative, tactile, osmotic or chemical and which cannot be ascribed to any other dental defect or pathology¹³.

Dentinal hypersensitivity is a ubiquitous problem. The reported incidence of hypersensitive dentin in the dental population ranges from 8.7% to 30% and occurs equally in males and females²³.

Although dentinal hypersensitivity is common, its etiology is poorly understood, though the exposure of dentin due to gingival recession is of primary importance. For dentin to be sensitive, it must first be exposed to the oral environment. This exposure may occur by either removal of enamel or denudation of the root surface by loss of the overlying cementum and periodontal tissues. Removal of enamel may occur as a result of attrition, abrasion or erosion while exposure of the root may be due to chronic trauma from faulty toothbrushing, acute and chronic inflammatory gingival and periodontal diseases or following surgical periodontal treatment.

Several theories have been proposed to explain the mechanism of dentinal hypersensitivity. Current evidence⁴⁶ favours the hydrodynamic theory originally postulated in the 19th century and later developed by Brannstrom in 1963. The theory suggested that dentinal tubules act as capillary tubes and that the fluid within them obeys the laws of fluid movement. The rapid movement of fluid in dentinal tubules,