

Understanding Dentin Hypersensitivity: Etiology, Diagnosis and Management Strategies

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Dentin hypersensitivity is characterized by a short, sharp pain arising from exposed dentin in response to stimuli such as thermal changes, evaporation, mechanical stimulation, osmotic shifts, or chemical agents. It occurs when dentinal tubules become exposed to the oral environment due to the loss of enamel or cementum caused by abrasion, erosion, attrition, abfraction, or gingival recession. Dentin hypersensitivity is a common condition, reported in approximately 8% to 57% of the adult population, and occurs more frequently in patients with gingival recession or periodontal disease. Despite its high prevalence, effective management of dentin hypersensitivity remains a clinical challenge.

This lecture aims to provide a comprehensive understanding of dentin hypersensitivity and to discuss appropriate clinical management strategies. The etiology, diagnostic approaches, and treatment strategies will be reviewed to facilitate a better understanding of this condition. First, the pathophysiology underlying dentin hypersensitivity will be discussed based on current knowledge of dentin biology, followed by an overview of diagnostic methods including appropriate clinical examination techniques. In addition, both conventional treatment approaches and recent therapeutic developments focusing on the physiological occlusion of dentinal tubules for more sustained treatment effects will be introduced. Through this lecture, participants will gain a clearer understanding of dentin hypersensitivity and practical insights that can be applied in clinical practice.

Learning Objective

- * To understand the pathophysiology and etiologic factors of dentin hypersensitivity.
- * To explain the diagnostic methods and the importance of differential diagnosis in dentin hypersensitivity.
- * To understand conventional treatment options and recent therapeutic strategies for dentin hypersensitivity.

Profile

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