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PATHOLOGICAL MOVEMENT OF TEETHES AND ITS LEVELS

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Abstract: It is very important to understand the degree of pathological tooth mobility in order to make a correct diagnosis and plan the correct treatment. This article aims to study the degrees of pathological tooth mobility from physiological tooth mobility to III degree, and By classifying mobility into different levels, dentists can formulate targeted interventions to determine the extent of the disease and effectively address the underlying causes.

Keywords: teeth, oral cavity, pathological tooth mobility, condition of teeth, oral cavity hygiene.

INTRODUCTION. Pathological tooth movement represents a significant deviation from the normal physiological mobility that characterizes healthy teeth within their periodontal support apparatus. Under normal circumstances, teeth exhibit minimal physiological movement that allows for adaptation to occlusal forces, accommodation of adjacent tooth movements, and maintenance of proper contact relationships within the dental arch. However, when this physiological mobility exceeds normal parameters or occurs in abnormal directions, it is classified as pathological movement, indicating underlying structural or functional disturbances within the periodontium or related oral structures.

The etiology of pathological tooth movement is multifactorial and complex, encompassing a wide spectrum of local and systemic factors. Periodontal disease remains the predominant cause, where progressive loss of periodontal attachment apparatus—including the periodontal ligament, alveolar bone, and cementum—compromises the tooth's anchorage within its socket. Inflammatory processes associated with periodontitis not only destroy supportive tissues but also alter the biomechanical environment, leading to unfavorable force distribution and subsequent tooth migration. Additionally, occlusal trauma, whether primary or secondary, can initiate or accelerate pathological movement by exceeding the adaptive capacity of the periodontal structures.

Beyond periodontal factors, pathological tooth movement may result from various other conditions including orthodontic relapse, space-occupying lesions such as cysts or tumors, traumatic injuries, and systemic diseases affecting bone metabolism. Hormonal influences, particularly during pregnancy or menopause, can temporarily increase tooth mobility by affecting the periodontal ligament and alveolar bone density. Furthermore, iatrogenic factors such as improper restorative procedures, ill-fitting prosthetic appliances, or excessive orthodontic forces can contribute to abnormal tooth displacement.

The clinical significance of pathological tooth movement extends far beyond aesthetic concerns. Progressive tooth migration can lead to functional impairment of the masticatory system, including altered occlusal relationships, compromised chewing efficiency, and temporomandibular joint dysfunction. The psychological impact on patients should not be underestimated, as visible tooth displacement, particularly in the anterior region, can severely affect self-esteem, social interactions, and overall quality of life. Moreover, pathological movement often creates areas that are difficult to clean, predisposing to further periodontal breakdown and caries development, thereby establishing a vicious cycle of oral health deterioration.

Understanding the various levels or degrees of pathological tooth movement is crucial for accurate diagnosis, appropriate treatment planning, and prognostic assessment. The classification of pathological movement into distinct levels provides clinicians with a standardized framework for

evaluating the severity of the condition and determining the most suitable therapeutic approach. These levels typically range from mild mobility that may be reversible with appropriate treatment to severe displacement requiring complex multidisciplinary intervention or potentially extraction and replacement.

Current diagnostic approaches to pathological tooth movement have evolved significantly with advances in technology and clinical understanding. Traditional clinical examination methods, including manual mobility testing and visual assessment, remain fundamental components of evaluation but are now complemented by sophisticated imaging techniques, occlusal analysis systems, and digital monitoring tools. These technological advances enable more precise quantification of tooth displacement, better understanding of movement patterns, and improved monitoring of treatment outcomes.

The therapeutic management of pathological tooth movement requires a comprehensive, individualized approach that addresses both the underlying causes and the resulting complications. Treatment modalities may include periodontal therapy to control inflammation and restore support, orthodontic intervention to reposition displaced teeth, occlusal adjustment to eliminate traumatic forces, and prosthetic rehabilitation to restore function and aesthetics. In some cases, surgical intervention may be necessary to address severe displacement or to provide additional periodontal support.

This comprehensive review aims to examine the various aspects of pathological tooth movement, with particular emphasis on understanding its different levels of severity, diagnostic approaches, and treatment considerations. By establishing a clear framework for classifying and managing pathological tooth movement, this work seeks to provide clinicians with evidence-based guidance for optimizing patient care and achieving predictable treatment outcomes.

Pathological tooth mobility is an important condition of teeth characterized by abnormal movement or loosening of the tooth in the groove, often caused by various factors such as periodontal diseases, injuries, or systemic diseases. It is very important to understand the degree of pathological tooth mobility to make a correct diagnosis and plan the right treatment.

By studying the degree of tooth mobility, this paper aims to emphasize the importance of timely diagnosis and individual treatment strategy for maintaining oral cavity and ensuring optimal dental stability.

The health and stability of our teeth play a crucial role in maintaining the proper functioning of the oral cavity and overall well-being.

Pathological tooth mobility, characterized by excessive movement or loosening of teeth, is a condition of the teeth that can significantly affect the human oral cavity. Understanding the degree of pathological mobility of teeth is crucial for correctly diagnosing, treating, and treating this condition. Pathological tooth mobility is caused by many factors, including periodontal diseases, injuries, genetic predisposition, or systemic conditions that affect the supporting structures of teeth. This abnormal movement can lead to consequences such as chewing disorders, aesthetic problems, and tooth loss if not treated in time. From physiological mobility to level III mobility, each level represents the progression of the degree of tooth movement and the main damage to the supporting tissues.Dental pathological mobility is a serious dental disease characterized by excessive movement or loosening of the tooth in the groove. This abnormal mobility can be caused by many factors: from periodontal diseases to injuries or systemic conditions affecting the supporting structures of teeth. To assess the severity of pathological tooth mobility, dentists often divide it into different degrees. Understanding these levels can help determine appropriate treatment and management strategies for this disease.

Physiological mobility (0th degree): at this level, the tooth is less mobile within normal limits. This minimal movement can be felt during actions such as chewing or squeezing, and it is a normal physiological reaction.

Level of mobility I (1st degree): At the 1st level of mobility, the tooth moves less than 1 mm in the buccal-lingual direction. This level may indicate early signs of periodontal diseases or minor damage to the supporting structures of the tooth.

Second-degree mobility (2nd-degree): Second-degree mobility represents moderate mobility, where the tooth moves more than 1 mm but less than 2 mm in the buccal-lingual direction. Such a level of mobility indicates the further progression of periodontal diseases, leading to damage to the supporting bone and ligaments.

III degree mobility (3rd degree): severe mobility characterizes the 3rd degree, in which the tooth moves more than 2 mm in any direction. In this late stage, significant bone loss and periodontal damage occur, which, if left untreated, can lead to tooth loss.

Pathological tooth mobility can have negative consequences for oral health, including impaired chewing function, aesthetic problems, and potential structural damage to adjacent teeth. Therefore, timely diagnosis and treatment by a qualified dentist are very important for eliminating the root cause and preventing further complications. Methods of treating pathological tooth mobility can include periodontal therapy, such as root planing to treat periodontal diseases, splinting to stabilize tooth loosening, or, in severe cases, surgical interventions such as bone plasty or tooth extraction.

Conclusions: In conclusion, it should be noted that understanding the degree of pathological tooth mobility is important for assessing the severity of this condition and developing appropriate treatment strategies. Regular visits to a dentist, adherence to oral hygiene rules, and timely intervention are key to maintaining the health of teeth and gums, leading to a functional and aesthetic smile.

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