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基础医学

牙周病重建牙周和正常牙周对正畸力反应差异性的实验研究

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摘要：

目的 比较正畸力作用下经釉基质蛋白诱导再生的牙周组织与正常牙周组织中牙齿移动距离的差异，探讨釉基质蛋白治疗牙周疾病后牙齿正畸的可行性。方法 选择42只雌性SD大鼠，将上颌两侧第一磨牙分别设为再生牙周组和正常对照组。再生牙周组采用结扎丝结扎法形成大鼠重度牙周炎实验模型，继而采用釉基质蛋白诱导牙周再生进行牙周重建。重建完成后，两组安装正畸加力装置牵引上颌第一磨牙近中移动，牵引4周测量上颌第一磨牙近中移动距离并进行统计学分析。结果 两组第一磨牙近中移动距离无统计学差异(P>0.05)。结论 经诱导后的重建牙周具有良好的力学反应性，釉基质蛋白可以应用于重度牙周炎正畸牙齿的牙周再生治疗。

关键词： 牙周病；正畸；牙移动；釉基质蛋白；大鼠, Sprague-Dawley

Study on the differences of reconstructive and normal periodontium under the orthodontic force

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Abstract:

Objective To investigate the differences of tooth movement under orthodontic forces between reconstructed and normal periodontal tissues, and to explore the feasibility of enamel matrix protein in orthodontic treatment of periodontal diseases. Methods Forty-two female SD rats were chosen for experiment animals, and the bilateral maxillary first molars were divided into the periodontal regeneration group and the control group. Severe periodontitis model in the periodontal regeneration group were made by ligation wire, and then enamel matrix proteins were used to induce periodontal regeneration. After successful reconstruction, orthodontic forces were used to move the maxillary first molars. After four weeks, the distances of the tooth movement were measured and statistical analyzed. Results There was no statistical significance in the mesial movement distance of the first molar between two groups (P>0.05). Conclusion The reconstructed periodontal tissue showed good mechanical reaction, and enamel matrix protein can be applied to the teeth with severe periodontitis before orthodontic treatment.

Keywords: Periodontal diseases; Orthodontics; Tooth movement; Enamel matrix proteins; Rats, Sprague-Dawley

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