

·基础与临床研究·

数字化可摘局部义齿在肯氏Ⅲ类缺损中的临床评价

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【摘要】目的 采用口内扫描结合选择性激光熔融(selective laser melting, SLM)技术, 制作肯氏Ⅲ类数字化可摘局部义齿(removable partial denture, RPD), 并评价其适合性及疗效。**方法** 招募肯氏Ⅲ类牙列缺损患者11例, 使用口内扫描仪制取数字化印模, 结合计算机辅助设计以及SLM技术完成RPD制作。初戴完成后对就位情况、支托密合情况等10个项目进行检查和评分, 并采用硅橡胶加衬法对义齿组织面与口内软组织间存在的间隙(即适合性)进行评估。**结果** 肯氏Ⅲ类数字化RPD大连接体、缺牙区基托部分的适合性分别为 $(366.3 \pm 152.4) \mu\text{m}$ 以及 $(241.0 \pm 132.4) \mu\text{m}$; 义齿就位情况、稳定性及各部位密合程度良好, 无压痛发生, 但其中5副义齿固位力稍小, 8副义齿需要调骀。**结论** 口内扫描结合SLM技术制作的RPD疗效基本满足肯氏Ⅲ类缺损的临床需求。

【关键词】 肯氏Ⅲ类缺损 可摘局部义齿 口内数字化印模 选择性激光熔融 适合性

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Clinical evaluation of CAD/CAM fabricated removable partial denture in Kennedy Class Ⅲ dentition defection

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【Abstract】Objective The aim of this study is to evaluate the adaption and curative effect of removable partial dentures (RPDs) fabricated by intraoral scanning combined with selective laser melting (SLM) on Kennedy Class Ⅲ dentition defection. **Methods** Eleven patients with Kennedy class Ⅲ dentition defect were enrolled. The digital impression was made by intraoral scanner, and RPDs were fabricated by computer aided design and SLM technology. After trying in was finished, ten items such as placement and adaption of rests were examined and scored. Average gaps between dentures and mucosa which represented adaption were measured using the silicone impression materials. **Results** The adaption of major connector and base of digital RPDs of Kennedy Class Ⅲ defection was $(366.3 \pm 152.4) \mu\text{m}$ and $(241.0 \pm 132.4) \mu\text{m}$, respectively. Most indicators were good except that 5 RPDs had slightly smaller retention and 8 RPDs needed occlusal adjustment. **Conclusion** Digital RPDs of Kennedy Class Ⅲ defection fabricated by intraoral scanning combined with SLM technology can meet clinical needs.

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