

·基础与临床研究·

基于口内数字化印模制作的全瓷单冠的适合性研究

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【摘要】目的 检测基于口内数字化印模制作的全瓷单冠的适合性, 为口内数字化印模在牙体缺损中的临床应用提供数据参考。**方法** 选择右下第一磨牙全冠树脂标准预备模型作为实验对象, 实验组采用口内扫描法, 对照组使用传统硅橡胶印模翻制石膏模型, 再通过口外扫描仪扫描石膏模型, 两组分别扫描10次。通过数字切削加工技术制作全瓷冠共20个。利用硅橡胶薄膜法测量内冠的内部适合性和边缘适合性。**结果** 实验组的全瓷单冠在近中边缘 (49.04 ± 19.71) μm 、近中轴转角 (210.52 ± 55.65) μm 、骀面中点 (313.34 ± 83.97) μm 的适合性优于对照组 [近中边缘 (80.08 ± 31.76) μm 、近中轴转角 (371.14 ± 104.62) μm 、骀面中点 (441.60 ± 171.21) μm], 差异有统计学意义 ($P < 0.05$), 而其余位点实验组 [近中轴面中点 (126.51 ± 35.29) μm , 远中轴转角 (281.09 ± 95.22) μm , 远中轴面中点 (94.65 ± 23.81) μm , 远中边缘 (80.99 ± 37.85) μm] 与对照组 [近中轴面中点 (114.48 ± 23.23) μm , 远中轴转角 (379.19 ± 149.39) μm , 远中轴面中点 (109.06 ± 31.45) μm , 远中边缘 (81.64 ± 24.57) μm] 之间的差异无统计学意义 ($P > 0.05$)。**结论** 采用口内扫描法制作的全瓷单冠其适合性可满足临床要求。

【关键词】 数字化印模 口内扫描 全瓷冠 适合性

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Research on the adaptation of all-ceramic crowns based on intraoral digital impression

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【Abstract】Objective The aim of this study was to evaluate the adaptation of all-ceramic crowns based on intraoral digital impression method, and provide guidance and reference for the clinical application. **Methods** The standard resin prepared model of the lower right first molar was selected as the experimental object. The experimental group used intraoral scanning method. The control group first used traditional elastic impression to reproduce a plaster model, and then scanned with an extraoral scanner. 10 times of scanning were repeated for each group. 20 all-ceramic crowns were made by digital cutting machine. Internal and marginal adaptation of crowns were tested by using silicone rubber film method. **Results** The experimental group showed significantly better adaptation at the mesial margin (49.04 ± 19.71) μm , mesial conner (210.52 ± 55.65) μm , and occlusal site (313.34 ± 83.97) μm than the control group [mesial margin: (80.08 ± 31.76) μm , mesial conner: (371.14 ± 104.62) μm , occlusal site: (441.60 ± 171.21) μm] ($P < 0.05$), while there were no significant differences between the experimental group [mesial axial: (126.51 ± 35.29) μm , distal conner: (281.09 ± 95.22) μm , distal axial: (94.65 ± 23.81) μm , distal margin: (80.99 ± 37.85) μm] and the control group [mesial axial:

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