

·临床报道·

一体化数控切削全口义齿的初步研究

闫越琪 宋哲文 刘亚禹 钱超 孙健

(上海交通大学医学院附属第九人民医院口腔修复科, 上海交通大学口腔医学院, 国家口腔医学中心, 国家口腔疾病临床医学研究中心, 上海市口腔医学重点实验室, 上海 200011)

【摘要】目的 采用计算机辅助设计/计算机辅助制造技术制作一体化数控切削全口义齿, 初步探讨数字化全口义齿制作流程并比较其与传统方法制作全口义齿在整体制作步骤、医师与技师操作时间、患者就诊时间等方面的差异。**方法** 选取无牙颌患者一例, 采用3D打印个别托盘制取印模, 利用传统方式确认垂直与水平颌位关系, 转移至Zirkohnzan系统虚拟颌架上, 并结合面部三维扫描仪获取的面部信息, 设计和制作一体化数控切削全口义齿, 评价修复效果。**结果** 利用数字化软件及加工设备, 制作完成一体化数控切削全口义齿1例, 达到了一定的美学、咀嚼、发音需求, 修复效果满意。**结论** 数字化技术制作的全口义齿减少了医师和技师的操作时间及患者的就诊时间。而面部扫描、数字化排牙等技术的应用, 极大程度上提高了义齿制作的可预测性。

【关键词】 数字化全口义齿 3D打印技术 数控切削技术 面部三维扫描

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A preliminary study of the monoblock digital complete denture

Yan Yueqi Song Zhewen Liu Yayu Qian Chao Sun Jian

(Department of Prosthodontics, Shanghai Ninth People's Hospital, Shanghai Jiao Tong University School of Medicine; College of Stomatology, Shanghai Jiao Tong University; National Center for Stomatology; National Clinical Research for Oral Diseases; Shanghai Key Laboratory of Stomatology, Shanghai 200011)

【Abstract】Objective Explore the digital complete denture procedure and the differences between the complete denture made by the computer aided design/computer aided manufacturing (CAD / CAM) method and the traditional method in the overall manufacturing process, operation time of doctors and technicians, the number of patients' visits by using CAD/CAM method to make a complete denture with digital control milling. **Methods** The case of a dentition loss patient was reported. The 3D printing individual tray was used to make the final impression. The maxilla-mandibular relationship was confirmed by traditional way, and transferred to the virtual articulator of Zirkohnzan system with the help of the 3D facial scanner (Zirkohnzan, Italy). This system was used to design and manufacture the digital control milling complete denture. The clinical effect of digital complete denture was evaluated. **Results** With the help of digital software and equipment, an digital control milling complete denture was made, which met the needs of aesthetics, mastication and pronunciation. **Conclusion** In the overall process, the operation time and steps of doctors and technicians, the times of patients' visits had not increased. And the application of digital software greatly improved the predictability of denture manufacturing.

【Key words】 Digital complete dentures 3D printing technology Digital control milling

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通信作者: 钱超, Email: qianch1987@aliyun.com; 孙健, Email: doctorsunjian74@aliyun.com