

A basic study on accuracy of a Hybrid-resin coping fabricated by CAD/CAM system -Using scanning post and evaluation by μ CT-

S. UEDA, M. SONE, M. HAMASAKA, Y. OKAWA, S. SOMEKAWA, D. MATSUMOTO, K. TAKAHASHI, F. NARUMI, T. MATSUKAWA, K. OKAMOTO and S. OHKAWA

Division of Removable Prosthodontics, Department of Restorative and Biomaterials Sciences, Meikai University School of Dentistry

Abstract

The purpose of this study was to evaluate the fitting accuracy of hybrid resin copings fabricated by dental CAD/CAM system and manufacturing using scanning post.

The desktop scanner (Aadvia Scan D850,GC) was used in this study and images were acquired with scanning post (SCAN POSTs:3shape). Designing software (Dental Designer,GC) were employed for creating hybrid resin coping design and milling machine (Aadvia Mill LW-1,GC) was fabricated the coping from hybrid resin blocks (Cerasmart 270,GC) as specimens(n=5). Desktop μ CT (SkyScan 1172,SkyScan) was used to measure the marginal and internal fitting accuracy of hybrid resin coping and 14 measuring points were evolution in this study.

Within the limitations of this study, it was suggested that the fitting accuracy of hybrid resin copings fabricated with this CAD/CAM system using scanning post was within the clinically acceptable range 100 μ m, excluding 2 points (Buccal and lingual margins).