ONLINE ISSN : 1881-1361
PRINT ISSN : 0287-4547

Dental Materials Journal
Vol. 27 (2008) , No. 3 p.427-432

[Image PDF (527K)] [References]

Effects from Applying Adhesive Agents onto Silanated Porcelain Surface on the Resin Bond Durability

Masahiro AIDA[1)], Masanobu WAKAMI[1)], Tsukasa WATANABE[1)], Yuji OMURA[1)] and Norihiro NISHIYAMA[2)]

1) Department of Crown Bridge Prosthodontics, Nihon University School of Dentistry at Matsudo
2) Department of Dental Biomaterials, Nihon University School of Dentistry at Matsudo

(Received August 30, 2007)
(Accepted December 6, 2007)

Abstract:
This study examined the effects on the bond durability of resins arising from the application of adhesive agent on porcelain surface, silanated by a ceramic primer consisting of γ-methacryloxypropyltrimethoxysilane (γ-MPTS), by comparing shear bond strengths before and after thermocycling.
When an adhesive agent was applied to a porcelain surface which had been silanated by a ceramic primer for 10 seconds, a significant reduction in resin bonding durability was observed. Extending the silanating period of the ceramic primer to 60 minutes resulted in an increase in resin bonding durability to the porcelain surface. However, the effect on resin bonding durability resulting from the application of adhesive agent was nearly the same as that without adhesive agent application, even though the porcelain surface was silanated for 60 minutes. In other words, positive effects arising from adhesive agent application on resin bonding durability were not observed.

Key words:
Ceramic primer, Bond durability, Adhesive agent

[Image PDF (527K)] [References]

To cite this article:

Masahiro AIDA, Masanobu WAKAMI, Tsukasa WATANABE, Yuji OMURA and Norihiro NISHIYAMA. Effects from Applying Adhesive Agents onto Silanated Porcelain Surface on the Resin Bond Durability . Dent. Mater. J. 2008; 27: 427-432 .

doi:10.4012/dmj.27.427

JOI JST.JSTAGE/dmj/27.427