

The effects of alloy surface treatments on the bond strength of rebonded resin-bonded retainers

김상필*, 강동완 조선대학교 치과대학 보철학 교실

The resin/metal interface is at the basis of most bonding failures in resin-bonded prosthesis. although debonding has been a problem with adhesive fixed partial dentures, various dentists classify them as long-term restorations. The advantages of resin-bonded fixed partial dentures include minimal tooth reduction and the possibility of rebonding. if resin-bonded prostheses can be easily rebonded, it is of clinical importance to know if the luting agents rebond as well the second time as they did originally.

Several retentive systems for resin-to-metal bonding have recommended. Treatments such as electrolytic etching and silicone coating, despite the good result of bond strength, have proved to be time-consuming and technique-sensitive. Therefore a simple and more reliable method is desirable.

This study evaluated the effect of metal surface treatments on the rebond strength of panavia 21 cement to a nickel-chromium (Ni-Cr) alloy.

the samples were received the following surface treatments:

Group No. 1 (control or served as the control,) treated with sandblasting with 50 μ m aluminum oxide and ultrasonically cleaned for 10 minutes in double-deionized water, Group No. 2 were no surface treatment.

Group No. 3 were treated with metal primer.

Group No. 4 were treated with sandblasting as previously described, and then metal priming.

The results support the use of sandblasting as a viable procedure when rebonding accidentally

lost adhesive partial denture. We concluded that sandblasting of metal surface before bonding can

provide the adequate bond strength during rebonding of resin-bonded fixed partial denture.