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[\[PDF \(452K\)\]](#) [\[References\]](#)**Influence of Simplified Silica Coating Method on the Bonding Strength of Resin Cement to Dental Alloy**[Tomonaga WATANABE^{1\)}](#), [Satoshi INO^{1\)}](#), [Shusaku OKADA^{2\)}](#), [Yuki KATSUMATA^{1\)}](#), [Naho HAMANO^{1\)}](#), [Satoru HOJO^{1\)}](#), [Toshio TERANAKA^{2\)}](#) and [Minoru TOYODA^{1\)}](#)

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Abstract:

This study evaluated the effectiveness of a simplified silica coating method (CoJet System) on the bonding strength of resin cements to dental alloy. Bonding strength of the specimens treated with metal primer after alumina sandblasting was compared with those treated with silica coating and silane coupling agent after alumina sandblasting. Furthermore, the influence of silane coupling agent on bonding strength was compared between one-liquid and two-liquid silane coupling agents.

Measurement of shear bond strength before and after thermal cycling revealed that the group treated with silica coating in one step without alumina sandblasting yielded high bonding strength. As for the influence of silane coupling agent, treatment with two-liquid silane coupling agent achieved higher mean shear bond strength than with one-liquid silane coupling agent. Findings in this study indicated that silicization by means of this simplified silica coating method was effective in improving the bonding strength to dental alloy.

Key words:[Silica coating](#), [Dental alloy](#), [Bonding strength](#)



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