Discussion

The null hypothesis of this study was rejected because there were significant differences in retention forces among the cements tested. A possible reason for the increase in the crown retention strength after the application of Contax might be the chemical compatibility between the bonding agent (C) and the cement (TC). Furthermore, it could be speculated that this selfetching bonding agent (C) created adhesion conditions on the interface surface due to the acidic monomer interaction with the dentin substrate followed by the bonding penetration in the dentinal tubules, resulting in the improvement of the adhesion of the cement to the dentin substrates.

Limitations of this experiment include finger pressure variability at the time of cementation, not accounting for specimens with variable surface areas, limiting comparison to other studies, and no thermocycling or dynamic fatigue testing.

Conclusions

Harvard Cement and TempoCem had the lowest retention forces. PermaCem Dual and RelyX Luting Cement had statistically the same retention force. PermaCem Dual with Contax applied after the use of TempoCem demonstrated a significantly higher retention force than the other cements tested. **Table 1**Mean Retention Forces (Standard Deviations)and Types of Failure of Crowns Bonded with Traditionaland Resin Cements

Cement*	Retention force (N) [†]	Types of failure (%)
Harvard Cement (HC)	43 (27) ^a	A-58 C-42
TempoCem (TC)	59 (16) ^a	A-91 C-9
PermaCem Dual (PC)	130 (42)	A-100
RelyX Luting Cement (RX)	279 (26) ^b	A-9 C-66 R-25
Contax and PermaCem Dual (PC/C)	286 (38) ^b	A-84 C-16
TempoCem and Contax and PermaCem Dual (TC/PC/C)	340 (14)	A-70 C-5 R-25

A = adhesive failure, C = cohesive failure in the cement, R = cohesive failure in the root.

*n = 8 for each group.

[†]Means with the same superscripted letter were statistically the same.

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Erratum

In IJP issue 3, 2009, in the article by Dr Terry R. Walton, the legends in Figures 1, 3, and 5 were switched. The light gray data should correlate to the year 1998 and the black data to the year 2006. The online version of this paper has been corrected. The publisher regrets this error.

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