test; confidence interval [CI] = 95%). Secondary caries, endodontic complications, and tooth fractures were not observed in any of the restored teeth.

Discussion

The null hypothesis could be accepted because no significant difference was observed in the survival rates of MC and AC RBFDPs. The lack of fracture with the MC suggests its reliability versus AC RBFDPs. Apparently, adhesion of the resin cement used was also more favorable to MC because no debondings were observed during the observation period. In this study, Co-Cr alloy was used for the fabrication of the MC framework due to concerns of the cost. Higher elastic modulus even in thin sections and the affinity of the metal for oxygen to form oxides on the metal surface may have facilitated bonding with resin.

The reason for debonding and the higher fracture rate of AC was attributed to torque movements of the abutment teeth, especially during protrusive and lateral movements under tooth contact in the case of two-retainer RBFDPs.^{1,4} However, in single-retainer RBFDPs, the pontic always moves with the one abutment tooth, which eventually prevents shear and torque forces on the pontics and the connectors. In the present study, the two fractures and the debonded cases may still indicate that, even in cantilever design, failures could not be completely eliminated. One possible explanation for this is the higher elastic modulus of the AC as opposed to the tooth material. This may also lead to unfavorable stress distribution at the cementation interface and ultimately to debonding. Even though AC and MC RBFDPs performed statistically similarly in terms of clinical survival, 20 RBFDPs per material group could be considered a small sample size and the mean observation period of 34 months rather brief. Both of these factors could be deemed as limitations of this study. In addition, in this study, only anterior RBFDPs were of interest, where more shear forces could be expected during chewing function. The clinical performance of posterior RBFDPs should be compared to anterior ones in future studies.

Conclusions

Cantilever AC RBFDPs may be regarded as a promising alternative to MC RBFDPs for replacement of missing anterior incisors, provided that no mechanical complications were experienced with the latter.

Acknowledgments

The authors reported no conflicts of interest related to this study.

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Literature Abstract

Relationship between adjusted body mass index percentile and decayed, missing, and filled primary teeth

This retrospective cohort study aimed to determine if there was a significant relationship between the adjusted body mass index (BMI) percentile and the number of decayed, missing, and filled primary teeth (DMFT) in a group of 3- to 5-year-old children. The data was collected from 215 children, with either an American Society of Anesthesiologists class I or II physical status, who had received dental treatment under general anesthesia at the University of North Carolina at Chapel Hill Children's Hospital between 2007 and 2008. A pediatric dentist confirmed the dental diagnosis at the time of treatment by a clinical oral and full-mouth radiographic examination. The relationship between BMI percentile and DMFT was found to be statistically significant, with higher BMI percentiles associated with higher dmft. As compared to children with normal or lower weights, overweight children had a higher prevalence of dental caries value. This study concluded that there is a common risk factor for dental caries in primary teeth and being overweight. However, this study was retrospective, and diagnoses of clinical caries were uncalibrated. An inclusion of socioeconomic status might also aid in further studies.

Powell JC, Phillips CL, Koroluk LD, Roberts MW. J Dent Child (Chic) 2013;80:3. References: 39. Reprints: School of Dentistry, UNC Chapel Hill, Department of Pediatric Dentistry, Chapel Hill, NC 27599, USA. Email: mike_roberts@dentistry.unc.edu—Sheralyn Quek, Singapore

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