Abstract

Aims: The aim of this systematic review was to compare the clinical performance of anterior single-retainer all-ceramic and metal fused to porcelain resin-bonded fixed partial dentures (RBFPDs) after an observation period of at least 1 year.

Materials & Methods: An electronic PubMed search complemented by manual searching was conducted to identify prospective cohort clinical studies with a mean observation period of at least 1 year. Data extraction and study inclusion were performed independently by 2 reviewers. The studies included reported survival rates of 2-unit anterior all-ceramic and metal-ceramic cantilever RBFPDs. Patients had to be examined at follow-up visit. Survival rates were analysed and descriptive comparisons performed.

Results: The search resulted in 9 prospective cohort studies. Survival rates ranged from 90 - 100% over a mean observation period of 55.4 months for all-ceramic RBFPDs and 93 -100% over a mean observation period of 35.2 months for metal-ceramic RBFPDs. Debonding was the most frequent complication with more occurrences in all-ceramic RBFPDs. However, no observed difference in survival rates was determined between the two types of restorations.

Conclusion: Both types of resin-bonded FPDs provide an effective short to medium term treatment option. All-ceramic single-retainer RBFPDs was shown to have excellent survival rates and esthetic outcome when replacing anterior missing teeth. Dentists should be aware of success rates, longevity and failure modes of this type of restoration and recommend it to patients as a medium to long-term option.