COMMENTARY

Retrospective Study of Extensive Heat-Pressed Ceramic Veneers after 36 Months[1]

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Drs. Rinke, Lange, and Ziebolz have contributed to the growing body of evidence related to the clinical efficacy of porcelain laminate veneers.[1] The specific areas of interest in this study are the use of what the authors describe as "extended" veneers, where the tooth preparations included very significant amounts of dentin, and the inclusion of a high percentage (41.5%) of veneers bonded to mandibular incisors.

The veneers were evaluated at a mean time of 36 months after placement. Survival rates (no intervention required) were 95.1% and success rates (some intervention required) were 92.8% at 36 months, which is similar to survival/success rates reported by other investigators. However, it should be noted that many of these investigators reported survival/success rates at 5 and 10 years. Because of the short term of evaluation of the present study (36 months), readers must accept these results with caution. Hopefully, the authors will follow up and report results at 5 and 10 years.

An analysis of the photographs in the article reveals that, by design, the tooth preparations in this study were extremely aggressive, and every preparation had exposed dentin. Forty-four percent of the tooth preparations were evaluated as having 50% or more of the preparation in dentin. Results showed that the failure rate was higher in these teeth than in the teeth with less dentin exposed. This is consistent with the results reported by Friedman and Dumfahrt,[2,3] and it would be expected that the failure rates will increase as a function of time.

The success rates on the mandibular incisors, again, while short term, are encouraging. This is the first study where a significant number of veneers were placed on mandibular incisors. It is extremely difficult to adequately prepare mandibular incisors for complete crowns, and if laminate veneers can be used successfully to restore anterior guidance, this is very good news for both clinicians and patients.

No real conclusions can be formed on the relative performance of heat-pressed ceramic veneers as opposed to conventional feldspathic porcelain veneers because no control group was included.

The authors used dual-cured resin cements to bond the veneers in place. With conventional veneers, this is usually not indicated because the dual-cure cements change color with time because of the inclusion of tertiary amines. With conventional thin veneers, this can negatively affect the color of the veneers 3 to 5 years after cementation. Most clinicians recommend the use of light-cured cements for this reason. The veneers placed in this study were likely thicker than conventional veneers, and thus may have required dual-cure cements to ensure adequate polymerization, and the increased thickness may have masked the color change in the cements.

In summary, this study does support consideration of the use of extended veneers, but more long-term data are required before routine acceptance of such restorations.

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REFERENCES

1. Rinke S, Lange K, Ziebolz D. Retrospective study of extensive heat-pressed ceramic veneers after 36 months. J Esthet Restor Dent DOI 10.1111/jerd.12000.
2. Friedman MJ. A 15-year review of porcelain veneer failure: a clinician's observations. Compend Contin Educ Dent 1998;19:625–8, 630, 632 passim; quiz 638.
3. Dumfahrt H, Schaffer H. Porcelain laminate veneers: a retrospective evaluation after 1 to 10 years of service. Part II: clinical results. Int J Prosthodont 2000;13:9–18.

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