THE DENTAL ADVISOR

Activa BioActive-Restorative

TWO-YEAR CLINICAL PERFORMANCE

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www.dentaladvisor.com

RATING SYSTEM: Excellent + + + + + Very Good + + + + Good + + +

Pulpdent
www.pulpdent.com

98% rating at recall

Description:

Bioactive restorative materials are relatively new in dentistry. They are restoratives that are moisture friendly, transport water, and stimulate apatite formation at the material-tooth interface. In addition, these resins react to pH changes in the mouth by releasing and up-taking calcium, phosphate and fluoride ions, thus helping to maintain the chemical integrity of tooth structure. The first generation of this class of composites can be placed with or without a bonding agent and is delivered via a dual-barrel, automix syringe.

Clinical Protocol:

A total of 194 anterior and posterior ***Activa BioActive-Restorative*** restorations were originally placed and 158 of these restorations were recalled at two years. The restorations were placed with and without the use of bonding agent after etching (Figure 1). They were one, two, three or four surface restorations (Figure 2).

Consultants' Comments

- *"I have used **Activa BioActive-Restorative** as a core in teeth with deep decay - the uptake of Ca, P and Fl could have a positive effect in these cases."*
- *"I like using **Activa BioActive-Restorative** in pediatric patients - it bonded well without a bonding agent."*
- *"The esthetics were excellent at 2 years."*

Fig. 1: Distribution of restorations placed with and without bonding agent.

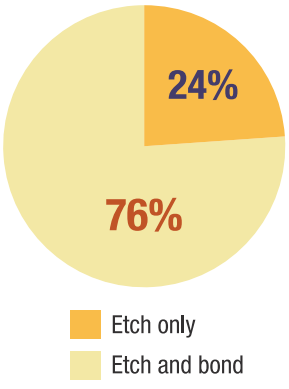
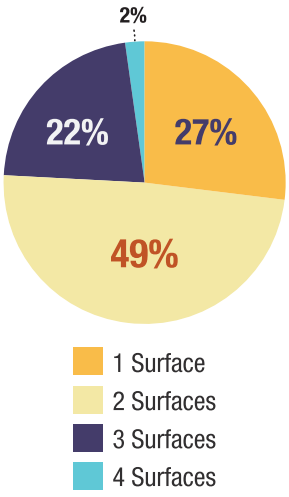


Fig. 2: Distribution of surfaces of restorations.



Results at Two Years:

Lack of Postoperative Sensitivity

After initial placement, only a few patients reported some sensitivity, which subsided over time. At the two-year recall, no patients reported any postoperative sensitivity (Figure 3).

Esthetics

The esthetics of the restorations was excellent (Figure 3). Ninety six percent of the recalled 158 restorations received a rating of 5, while 3 received a rating of 4, and 3 a rating of 3 – lower ratings usually were the result of slight staining and discoloration. None of these restorations needed replacement.

Resistance to Marginal Discoloration

Resistance to marginal discoloration was also excellent (Figure 3). Only 4 out of the 158 restorations received a rating of less than five. Two had a rating of 4 and two others had a rating of 3.

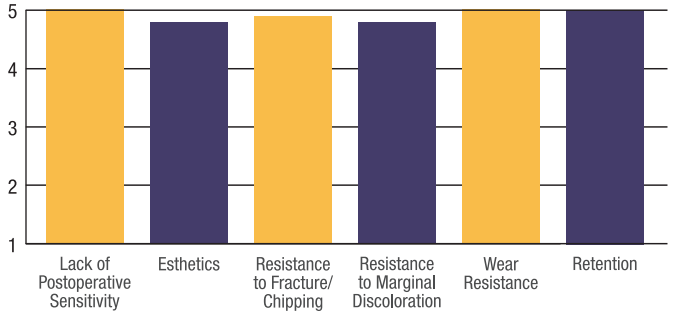
Wear Resistance

Ninety-nine percent of the restorations exhibited no signs of wear (Figure 3). Only two of the recalled restorations exhibited slight wear.

Retention

Retention was excellent (Figure 3). One restoration out of the 158 partially debonded and was replaced.

Fig 3. Ratings of ***Activa BioActive-Restorative*** at two-year recall.



Summary

Activa BioActive-Restorative performed extremely well at the two-year recall. Each evaluated category received a 96% or better rating. Overall ***Activa BioActive-Restorative*** received a clinical performance rating of 98% at the two-year recall.

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