



Glidewell Laboratories
www.glidewell dental.com

98%
rating at
placement

Introduction:

Obsidian® is a lithium silicate ceramic with high flexural strength that when pressed to metal results in a restoration with superior strength. In addition, Obsidian pressed to metal restorations are highly esthetic and chip resistant. They are ideal for situations where the preparations are highly discolored and optimal strength is required.

Clinical Evaluation Protocol:

A total of 127 Obsidian pressed to metal restorations were placed over a 12-month period. The Obsidian restorations included 27 anterior units and 100 posterior units (Figure 1). Of the 127 units, 40 involved three- to seven-unit bridges while 87 were single crowns (Figure 2). All restorations were fabricated by Glidewell Laboratories. Approximately one half of the restorations were cemented with self-adhesive resin cement, while the remaining half were cemented with resin-modified glass ionomer cement (Fuji Plus).

Fig. 1: Distribution of Obsidian restorations at placement.

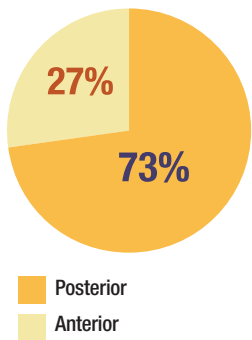


Fig. 2: Types of Obsidian restorations at placement.

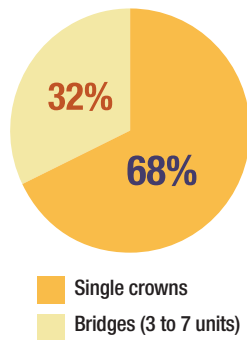


Fig. 3: Results of Obsidian restorations at placement.

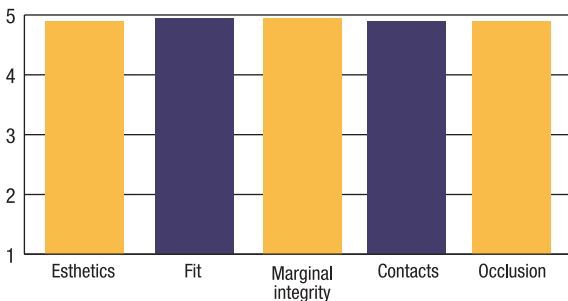


Figure 4. Obsidian pressed to metal restoration (tooth #29) at six months.



Figure 5. Obsidian pressed to metal restoration (bridge at #19-22).

Observations at Placement:

At placement, all restorations were evaluated in the following areas: esthetics, fit to tooth, margin integrity, contacts, and occlusion. Each category was rated on a scale of 1 to 5. 1 = poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent.

Summary:

The vast majority of the restorations received from Glidewell Laboratories were excellent and received a rating of five at placement (Figure 3). Of 127 restorations, only two restorations received a four (very good) for fit and margin integrity. The fit was slightly loose and the margins were bulky. Seven restorations received a four for esthetics and occlusion - in these cases the restorations were slightly grayish and the occlusion was high. Thirteen restorations received a four for either tight or light contacts. Figure 4 and Figure 5 show Obsidian pressed to metal restoration at six months. The rating of Obsidian pressed to metal restorations at placement was 98%.

Consultant Comments

- "Restoration looks very nice and the fit is great."
- "The ones I have seen look great about a year after cementation."
- "All look good and no chipping so far."