BruxZir Anterior: Placement and one-year recall

By Dental Advisor

BruxZir Anterior is a zirconia designed to satisfy any patient's aesthetic needs. It has a flexural strength of 650 MPa with translucency and colour similar to natural dentition. Owing to its superior strength, BruxZir Anterior requires less tooth reduction than monolithic glass ceramic restorations and is kind to natural opposing dentition. Indications include single-unit crowns and three-unit bridges with one pontic as well as implant crowns.

Results at placement

At placement, the restorations were evaluated in the areas of aesthetics, fit to tooth, marginal integrity, contacts, and occlusion on a 1–5 scale (1 = poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent).

Ninety-six per cent of restorations rated during placement for each of the above categories received a rating of five or excellent.

Results at one-year recall

At approximately one year, about one third of the restorations received a rating of 4 while the remaining four restorations were redone by the laboratory because the fit was loose and the contacts light. At placement, BruxZir Anterior received a 98% clinical rating.

The high flexural strength of BruxZir Anterior allows the dentist to prepare teeth more conservatively without compromising the aesthetic outcome. Only 0.8 mm of reduction is required in most cases, although 1.25 mm is ideal. To date, 306 restorations have been seated including anterior and posterior single crowns, implant crowns and three-unit bridges (Figs. 1 & 2).

Of the posterior crowns, only 6% were first or second molars, the remaining 94% were first and second bicuspids. All restorations were prepared by Glidewell Laboratories.

Of the remaining 12 restorations (4%), the majority (eight restorations) received a rating of 4 while the remaining four restorations received a rating of 3. Two restorations were redone by the laboratory because the fit was loose and the contacts light. At placement, BruxZir Anterior received a 98% clinical rating.

By approximating one year, 71% had been in function for more than nine months, 20% from 5 to 8 months and the remaining 9% less than four months (Fig. 3).

At recall, the restorations were evaluated for aesthetics, resistance to fracture/chipping, resistance to marginal discoloration, and wear resistance. Restorations were again rated on a 1–5 scale (1 = poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent).

At one-year recall, every restoration received an excellent rating of 5 in all categories mentioned above except for marginal discoloration. Ninety-six per cent of restorations, 71% had been in function for more than nine months, 20% from 5 to 8 months and the remaining 9% less than four months (Fig. 3).

Summary

At one-year recall, BruxZir Anterior has performed exceptionally well in the area of aesthetics, lack of fracture or chipping, and wear resistance. It is highly recommended for use in anterior restorations and selected posterior restoration. Its flexural strength surpasses most silica-based ceramic materials available to the dental profession.

Comments by patients at recall

"Your teeth are beautiful, who did them?" (A comment a patient received after restoring teeth 5–12).

"I really like the way they look, beautiful and natural a huge improvement."

"I can't even tell which crowns you did last time, they look so real. Is that a new material?"

Fig. 1: Types of BruxZir Anterior Restorations. — Fig. 2: Distribution of BruxZir Anterior Restorations. — Fig. 3: Age of BruxZir Anterior Restorations at recall. — Fig. 4: Ratings of BruxZir Anterior restorations at one-year recall.