

Compiled by Geoffrey M. Knight

Managing the bulimic patient

A diagnostic feature of bulimic patients is the marked erosion on the lingual surfaces of their upper anterior teeth. They tend to be young adult females, often with limited resources that prevent them from embarking upon complex restorative dentistry.

The following case study shows the conservative management of a bulimic patient over a six year period.



Fig. 1. 26 year old bulimic female patient with extensive erosion on her upper incisors.

Figure 1 shows the teeth of an adult female, aged 26 years who presented with erosion on the lingual and occlusal surfaces of her upper dentition, especially in the anterior region where the pulps of the upper central incisors had been exposed and required endodontic treatment (Fig. 2). There was also a loss of vertical dimension. Although her appearance was anorexic she denied regurgitating.

Management of her dentition involved opening her occlusion with a small particle composite resin at the cuspids and first premolars (Fig. 3), and placing direct microfill composite resin laminates on the facial and lingual aspects of her upper incisors (Fig. 4). Observe the 3 mm space between second bicuspid and molars.

Opening a bite with composite resin creates a fixed anterior splint that may also be used to manage patients with severe occlusal attrition. This restorative technique may also be used to correct neck pain and TMJ problems. Figure 5 shows a patient with severe occlusal attrition whose vertical dimension was restored by using composite resin to build up the occlusion (Fig. 6).

The bite is opened using a small particle composite resin to establish a plane of occlusion at the canines and first bicuspid. Building out the lingual surfaces of the upper canines and bicuspid and the facial surfaces of the lowers.

Once a plane of occlusion has been established, direct microfill composite resin laminates may be placed on the facial surfaces of the upper and lower incisors, canines and first bicuspid.

A flat occlusal plane is initially formed after which the para functional forces on the composite resin will generate physiologically functional inclined planes.

Furthermore, over a period of 18 months to three years (depending upon the age of a patient), the lateral segments will move into occlusion, apparently not by over eruption but by growth of the alveolar plate. Figure 7 shows the patient four years after placement of the restorations. Note the posterior teeth are now in occlusion.

Group function can be observed during lateral movements. Posterior teeth in contact on the working side and disclusion on the non working side (Figs. 8 and 9; and 10 and 11).

Figure 12 shows the patient six years after placement of the restorations. Vertical dimension is being maintained and future breakdown is unlikely due to the eruption into occlusion of teeth in the lateral segments. Microfill composite resin will maintain a surface lustre over many years and require little ongoing maintenance.

There are signs of cervical erosion, particularly on the right-hand side that may be due in part to tooth brush abrasion. If this becomes an aesthetic problem for her, composite laminates are easily corrected.

Fig. 13. Covering the lingual surfaces with composite resin is protecting these surfaces from further erosion. The lingual surfaces of the first molars are showing signs of erosion and will require coverage.

There are many ways of managing the dental problems of bulimic patients. This case study shows a relatively simple way of assisting a young woman to repair the damage to her dentition and to restore the aesthetics of her smile over an extended period (Fig. 14).

A major benefit of this technique is the ability to maintain the restorations in an environment that is subject to the ongoing breakdown of the dentition. As cervical margins become exposed they require constant repair and composite resin is more suited for such ongoing maintenance rather than indirect restorations.

The half-life of an indirect restoration is about 13 years. The half-life of a direct restoration is as long as a patient wishes it to be maintained. ▶

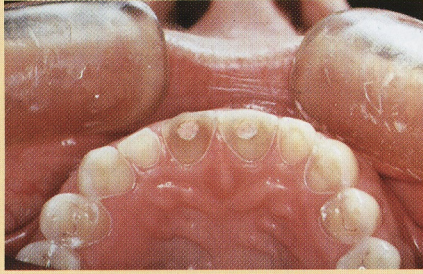


Fig. 2. Endodontic treatment of the central incisors due to severe erosion caused by bulimia.



Fig. 3. Aesthetic restoration of the dentition with composite resin. Note the 3 mm space between the posterior teeth.

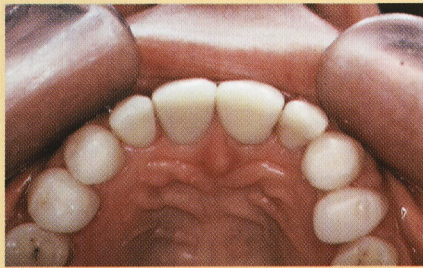


Fig. 4. Composite resin overlays of the occlusal and lingual surfaces.

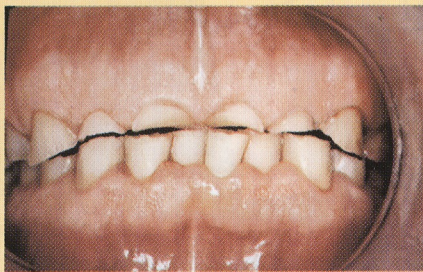


Fig. 5. Patient with extensive occlusal wear associated with nocturnal parafunction.



Fig. 6. Restoration of the occlusion and anterior aesthetics with composite resin.

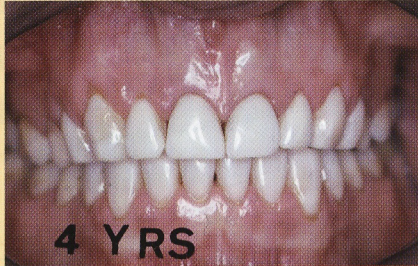


Fig. 7. Four years after placement of restorations. Note that the posterior teeth are now in occlusion.

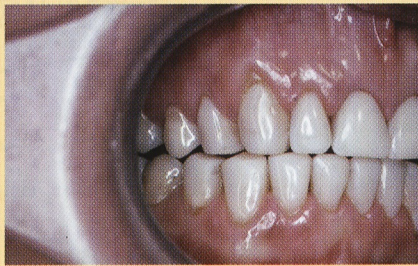


Fig. 8. Lateral movement of mandible to right-hand side. Note group function.

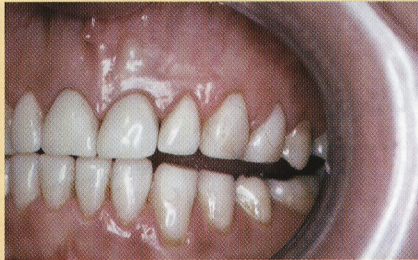


Fig. 9. Non working side, mandible moved to right-hand side. Note lateral discusion.



Fig. 10. Lateral movement of mandible to left-hand side. Note group function.



Fig. 11. Non working side, mandible moved to left-hand side. Note lateral discusion.



Fig. 12. Patient six years after placement. Microfill composite resin laminates are maintaining their lustre and vertical height is being maintained. Cervical erosion may require ongoing repair.

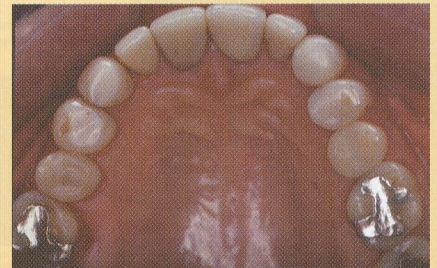


Fig. 13. Lingual aspect of upper arch six years after placement. Composite resin overlays on lingual surfaces are protecting teeth from further erosion.



Fig. 14. An attractive smile helps to promote a positive self image that is particularly important for bulimic patients.