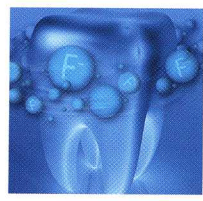


DE

DENTAL ECONOMICS®



The secrets to newfound success
p. 32

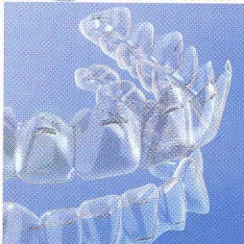
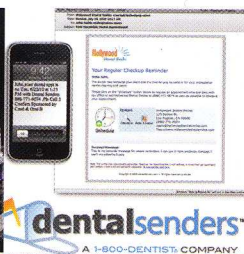


Four CE credits
Fluoride Guide

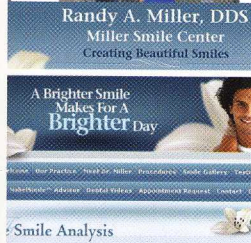
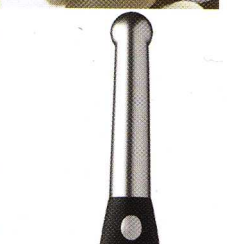


Custom cabinetry vs. dental furniture
p. 38

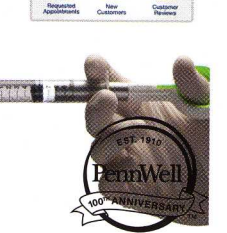
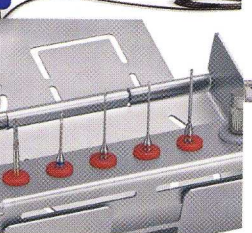
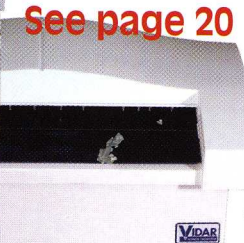
The nation's leading business journal for the profession
September 2010



N • E • W PRODUCTS to see at the ADA Annual Session in Orlando



See page 20





Direct composite *an everyday standard in cosmetic dentistry*

Patient's natural smile exuding confidence after restorative treatment with direct composite bonding.

by **Michael R. Sesemann, DDS**

Life was good. For almost a decade, Americans went on a spending spree. Retirement plans, 401(k)s and bank accounts flourished with or without much management. Thoughts of fiscal responsibility were far from our minds as the financial sector ballooned with complex instruments meant to keep us confident but ignorant of their implications.

Cosmetic dentistry was all the rage. Every week, ABC's "Extreme Makeover" presented amazing transformations as medicine and dentistry changed appearance and health, encouraging viewers to consider improvements of their own. The resulting interest drove patients to our doors and changed the way dentistry fit into people's priorities and lives.

The dental community embraced the chance to fulfill our patients' desires and almost everyone wanted us to perform the various techniques dentistry could offer. Prepping and bonding indirect restorations became the most popular way for a lot of dentists to create smile design changes for their patients, despite the financial and long-term implications caused by the loss of sound tooth structure that can be associated with the technique.

For more on this topic, go to www.dentaleconomics.com and search using the following key words: *cosmetic dentistry, direct composites, restorations, Michael R. Sesemann, DDS.*

And then reality hit. Our country's economy called a code blue as we learned that two costly wars and an array of financial instruments that not even experts could fully explain could make our economy collapse like a house of cards. As Americans focused their attention on dealing with these resulting economic hardships, spending habits changed. Luxuries were eliminated. Necessities took priority.

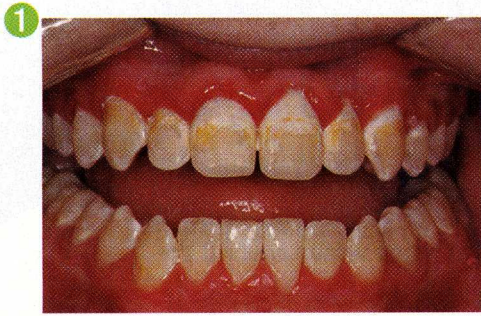
"Extreme Makeover" remained on television but "Home Edition" focused on changing the living conditions of the needy and worthy — not restoring their appearance. Consistent with these trends, the interest in composites expanded as people looked for more affordable treatments and/or restorative options that were more conservative to tooth structure.

We have been forced to review how we run our practices and how we serve our patients. Understandably, the circumstances under which we must now function have brought many issues to the forefront that some dentists never had to confront before. By having a skill set that includes direct composite expertise, dentists and their teams can provide an excellent service that can be a conservative treatment modality that is affordable for patients.

Case study

A young patient, 14 years of age, presented postorthodontic treatment with extreme hypocalcification and moderate decay of the maxillary incisors with small areas of cavitation

Direct composite: an everyday standard in cosmetic dentistry



(Fig. 1). Though the expanse of the enamel destruction was vast in terms of surface area, the depth of the decay was minimal. Given the patient's young age, a treatment plan of direct composite bonding for teeth Nos. 6 through 11 was proposed. Supporting treatment of selective gingivoplasty and oral hygiene instructions were also included. Upon hearing the cost and associated benefits of the proposed conservative treatment plan, the patient's parents readily accepted the proposal.

Discussion

The objectives of treatment included:

- ▲ Eliminate all decay and precarious, severely hypocalcified areas of enamel.
- ▲ Eliminate swollen, inflamed gingiva, making it in harmony with underlying alveolar topography to create a favorable gingival architecture for ideal tooth shapes (Fig. 2).

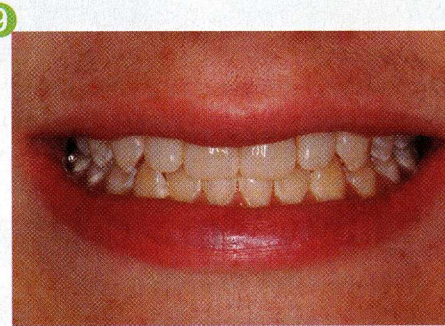
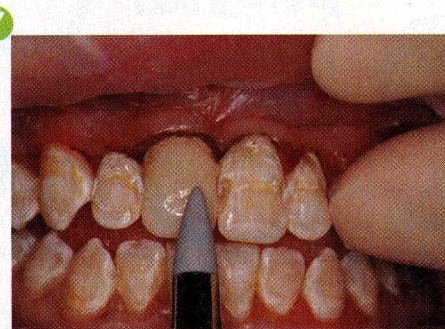
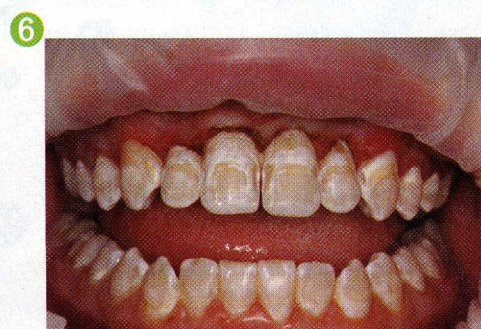
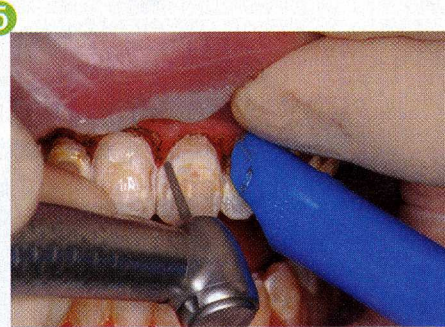
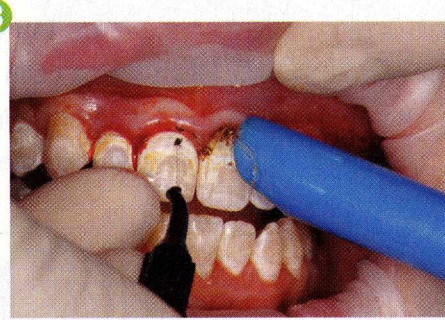


Photo Legend ...

Fig. 1: Retracted view of the patient's dental condition revealing enamel damage that occurred during orthodontic care.

Fig. 2: OptraGate (Ivoclar Vivadent) retraction revealing swollen and inflamed gingiva.

Fig. 3: After sounding to bone to evaluate underlying alveolar architecture, a gingivoplasty with a soft-tissue diode is carried out.

Fig. 4: Completed laser gingivoplasty.

Fig. 5: Removal of decay and hypocalcification with a diamond No. 8856L 014 (Brasseler USA).

Fig. 6: Final preparation after micro-etching with 27 micron aluminum oxide.

Fig. 7: Adaptation of direct composite increment with a taper-tipped silicone instrument, Colour Shaper No. 2 firm (Royal Sovereign Ltd. through Blick Art Materials).

Fig. 8: Finishing and polishing of direct composite bonding with Astropol polishing points and disks (Ivoclar Vivadent).

Fig. 9: Close-up of patient's restored smile, displaying increased esthetics and fulfillment of treatment objectives.

Direct composite: an everyday standard in cosmetic dentistry

- ▲ Create optimum clinical crown size with bilateral symmetry and proportionate balance of the patient's maxillary anterior sextant.
- ▲ Change the incisal shapes of the teeth to decrease the large incisal embrasures.
- ▲ Restore primary, secondary, and tertiary facial anatomy of the anterior sextant.
- ▲ Provide a smile the patient can have confidence in and instill in him motivation to take his daily oral hygiene seriously.

Procedure and materials

The patient was anesthetized and the area was isolated with an OptraGate (Ivoclar Vivadent). The teeth were cleaned with a prophyl cup and pumice. After sounding of the bone revealed favorable alveolar form consistent with ideal clinical crown sizes, a gingivoplasty was carried out to create an optimal gingival architecture with a soft-tissue diode laser, Odyssey Diode Laser (Ivoclar Vivadent) (Figs. 3 and 4).

Preparation of all decay and hypocalcified areas was followed by microetching with a PrepStart (Danville Engineering) utilizing 27 micron aluminum oxide (Figs. 5 and 6). The bonding procedure involved a three-step total etch technique with Opti-Bond FL (Kerr) before application of the restorative material, Empress Direct Composite (Ivoclar Vivadent) (Fig. 7).

The composite bonding was finished with burs and diamonds from the Sesemann/Bakeman Composite Finishing Kit (Brasseler USA) and polished using Astropol polishers (Ivoclar Vivadent) (Fig. 8).

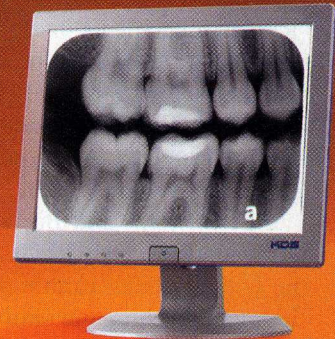
Conclusion

Direct composite material provided the perfect restorative solution for this young patient (Fig. 9). Without the ability to adapt the restorative material to the various pits and undercuts, a preparation for an indirect restoration would have had to remove additional healthy tooth structure. When clinicians can include direct composite artistry in their skill set, it allows for conservative, affordable restorative options that can only benefit the patients they serve and the practices in their charge. **DE**

Michael R. Sesemann, DDS, is an Accredited Fellow of the American Academy of Cosmetic Dentistry, a clinical instructor of the Kois Center, and a faculty member of the Beverly Hills Institute of Dental Esthetics. He lectures internationally, serves on the editorial review boards of peer-reviewed publications, and has a private practice in Omaha, Neb. Contact him at mseemann@smileonline.net or www.smileonline.net.



The FLEXIBLE Approach



ScanX™ offers your practice the most versatile, diagnostic-quality digital radiography. Its thin, flexible phosphor storage plates can be reused thousands of times – saving time and money.

**AIR
TECHNIQUES**
INC.

www.airtechniques.com

Go online to locate a dealer near you.

See us at ADA Booth #3329-3529

ScanX. It's Your Choice.