Hard-tissue laser systems: Is the future now?

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A greater number of dentists may soon be ready to start using hard-tissue lasers in the preparation of teeth and reshaping of bone. The technology promises to be more precise, lead to more esthetic results and, hopefully, be more economical as well.

Restoring the natural dentition has been one of the cornerstones of dentistry. Historically, GV Black was the first to use hand chisels to shape his design preparation of teeth and restorations. A foot-pedaled drill with special burrs followed. Belt-driven handpieces with drilling apparatus came next, along with a high-pitched whirring sound. Although the belt helped the practical achievement, the irritating and uncomfortable handchisels to shape his design preparation of teeth and restorations. A foot-pedaled drill with special burrs followed. Belt-driven handpieces with drilling apparatus came next, along with a high-pitched whirring sound. Although the belt helped the practical achievement, the irritating and uncomfortable handpieces avoided the technology. Also with the early generations of the technology, some questionable claims were made about some hard-tissue achievements. I tried some of those earlier products and found the ones I used to be expensive and ineffective. Their pounding, pulsating, loud noises—along with streams of water—seemed to achieve little if anything for the patient. Application seemed limited to Class V restorations.

The disappointment of some of these early products dulled many practitioners’ hope and expectations for the use of lasers with hard-tissue procedures. But things are far different now!

Testing in the exhibit hall

One example I recently learned about is Light Instruments’ LiteTouch Er:YAG laser system, which was launched in the U.S. last year by AMD Lasers. It is a water-cooled laser that enables clinicians to shape osseous structure as well as the tooth as desired, without causing pathology, while achieving desired goals.

Once the practitioner acquires the ability to use the tips apex rather than the side of the filament, as many are accustomed to do with a bur, the artistic abilities of the practitioner promise to soar with this technology’s possibilities.

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the need for additional visits when submitting a claim. Giving us a little wiggle room for oral health assessment humanizes the health care provider. It adds value to our diagnostic abilities. It allows us to emphasize the mouth/body connection to the patient. If we’ve assessed that the patient presents with at least 30 percent of his or her gingivae exhibiting moderate to severe inflammation, the code can then be correctly used.

When The New York Times reporter called me to do research on Esther’s life, the initial questions were about Esther’s classic dental-hygiene textbook. The 12 editions in multiple languages are impressive enough on their own. So I tried to steer the reporter away from the text, hoping the tribute might focus more on the wonderful, energetic woman Esther was. When Esther was 89, she was out on a Chicago dance floor at a Hu Friedy party at 10 p.m. The rest of us, decades younger, were yawning into our Decaf.

I can see why someone who isn’t a hygienist would wonder why people would stand in line for two hours for an automatic graph from a professor. This is what made Esther so special and unique. She really was our True North.

Esther was our link to another era. A living, breathing connection to the beginning of our profession. The rest of us can only pray that, in time, the shadows of our own professional reputations stand bigger than ourselves.

I’ve been collecting lithographs for 30 years. Stumbling upon Sorel’s “The Last Flossing” around the same time that Esther passed away led me to believe that divine provenance had met divine providence. Considering Sorel’s nontheism, I’m not so sure he would agree. But then, he’s not a hygienist.

More online


At press time, a signed print of Sorel’s “The Last Flossing” could be seen for sale at www.chrisbeetles.com/gallery/cartoon/lastflossing.html.