CLINICAL AID

Retrofitting Curing Lights for High-Speed Bonding

Several new light-curing methods, including the use of a portable argon laser, have recently been introduced in an effort to reduce the time needed to bond orthodontic brackets. The problem with most dental curing lights, aside from the expense, is that they were designed for use in restorative dentistry. The probes of these curing lights are 10-11mm in diameter, which means a significant portion of the transmitted light will flood onto and over an orthodontic bracket, rather than being concentrated at the enamel-bracket interface.

A new curing light probe, the Power Slot,* has a tapered, rectangular tip that measures 4mm × 7mm (A). This design allows the tip of the probe to be positioned closer to the critical enamel-bracket interface. The smaller tip surface area also concentrates the light photons to a density more than two and half times that of standard round probes, resulting in shorter adhesive curing times.

The increased intensity allows adequate curing of a metal bracket in 10 seconds when used with conventional light-cured adhesives, and only six seconds when used with Quick Cure* adhesive paste. This curing time should be divided equally between the two occlusal corners of each bracket.

Available with four different bases for retrofitting almost any type of curing light (B), the Power Slot offers a way to cut light-curing time without having to purchase a new light.

*Reliance Orthodontic Products, Inc., P.O. Box 678, Itasca, IL 60143. Patent pending on Power Slot.

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