CLINICAL AID

An Easy-to-Tie Elastomeric Module

Elastomeric modules have been a common part of orthodontic practice for more than 30 years, since their introduction by Drs. Klein and Anderson in 1967.* The modules have remained basically unchanged in design, although they are now available in a variety of colors and materials.

With the development of new bracket designs and orthodontic techniques, however, the modules have become progressively more difficult to engage and less comfortable for the patient. As brackets have become smaller, bracket tie wings have been made shorter in an effort to reduce fractures and to keep mandibular tie wings out of the occlusion. Furthermore, many orthodontists are now ligating brackets beneath the archwires to provide optimum control of tooth movement and to achieve the best orthodontic result in the shortest possible treatment time. Ligation and auxiliary wires require additional tie-wing space, leaving even less of the tie wing to initially engage the ligature.

Unless lip retractors are used, the path of insertion of conventional elastomeric modules pinches the mosquito forceps or plier against the upper or lower lip (A). The module frequently slips off the edge of the tie wing, with further risk of trauma from the plier to the patient's soft tissues.

All too often, ligation requires two assistants, or the assistant and the doctor, to start the module by teasing it into the bracket tie wing with a pointed instrument. If the module does not engage, valuable chairtime is wasted. Sometimes it takes longer than 30 seconds to engage a single module. Clearly, there is an opportunity to improve both patient comfort and practice efficiency if these problems can be overcome.

New Contoured Elastomeric Modules

New Alastik Easy-to-Tie Ligatures** (B) have a 45° bend that allows the placement instrument to approach the bracket at an angle (C). This makes ligation more convenient for the doctor

*U.S. Patent No. 3,530,583.

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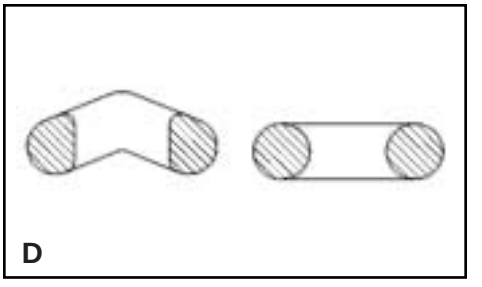
or assistant, reducing the range of movement needed to attach the module and minimizing contact with the patient's lips. Once the first tie wing has been hooked, the bend also makes it easier to complete the ligation on the other wing without holding the module in place with a finger.

The new ligatures have a noticeably larger inner diameter, which reduces the effort required to stretch them around tie wings of various sizes and shapes. Another design feature is a flatter inner cross-section, resembling the shape of the letter "D" (D). This distributes stress more evenly, reducing stress concentration at the inner surfaces of the module.

The contoured ligatures are latex-free and are delivered on patient-specific sticks of 10 ligatures each, reflecting normal use patterns and aiding in cross-contamination control (E). Only one ligature size is needed for most bracket sizes, types, and shapes. The ligatures are available in 25 colors, including an opaque version called "Obscure" for use on esthetic ceramic brackets such as Clarity Metal-Reinforced Ceramic Brackets.** Fade resistance of the colors has been demonstrated in artificial saliva, 8% alcohol, cottonseed oil, and carbonated citrated soda for a minimum of one month each.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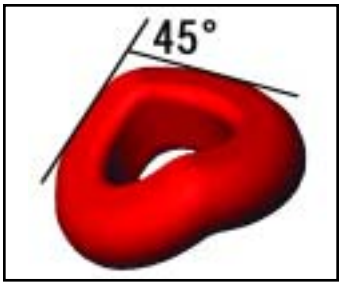

E

Conclusion

Each patient appointment can require changing 20 or more elastomeric modules. Under this estimate, if 35 patients are seen each day, as many as 600 modules are changed daily. Saving only 30 seconds of chairtime on each patient can thus allow the practice to treat one or two more patients daily.

The orthodontist, assistants, and patients will all benefit from the use of contoured modules that engage easily, require less manual dexterity, reduce assistant training requirements, save time and frustration, and give the patient a more comfortable experience.

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