TECHNIQUE CLINIC

Correction of Incisor Position After Breakage of a Fixed Lingual Retainer

Fixed lingual retainers[1,2] are subject to breakage from biting on hard substances, trauma, or improper bonding technique.[3] If the patient is unaware of the fracture or fails to report it promptly, some change may occur in the incisor position (A). Then, if the retainer is simply rebonded, the relapsed position becomes the retained position.

When a minor change in incisor position is discovered shortly after the retainer failure, the tooth may still be mobile enough to be repositioned with finger pressure. This is a simple remedy, but the clinician must be careful to avoid damaging the tooth and the surrounding tissues or causing pain for the patient. Retreatment with fixed orthodontic appliances is a costly alternative, and the patient is usually reluctant to go back into treatment. If the retainer wire is intact and still attached to the remaining anterior teeth, however, there is a simpler solution.

Procedure

Using the retainer wire as an anchor, the malpositioned incisor can be brought back into place with gray or clear .025" elastomeric power tubing.* The power tubing is looped around the tooth and the retainer wire and tied on the mesial or distal side of the incisor, where it will not interfere with tooth movement (B). The force of the tubing should be as low as possible to minimize patient discomfort and avoid unnecessary damage to the tooth and surrounding tissues. If the power tubing slides cervically or incisally on the labial surface of the incisor, a clear button or a bit of composite can be added to hold the tubing in place.

After a few days, when the tooth is back in position, the retainer wire can be rebonded (C).

This technique works in both the upper and lower anterior segments, and can be used for lateral incisors if the canines are incorporated in the fixed retainer. It is indicated for simple labial incisor flaring, not when the affected tooth is in infraocclusion, when the root has become malpositioned, or when the retainer wire has been deformed. In most cases of retainer wire breakage, it is a quick, painless, nearly invisible, and cost-effective method that restores the quality of the orthodontic result.

*G&H Wire Company, P.O. Box 248, Greenwood, IN 46142.

REFERENCES

1. Proffit, W.R.: Retention, in *Contemporary Orthodontics*, ed. W.R. Proffit and H.W. Fields, Mosby, St. Louis, 1992, pp. 544-547.
2. Durbin, D.D.: Relapse and the need for permanent fixed retention, J. Clin. Orthod. 35:723-727, 2001.
3. Zachrisson, B.: Bonding in orthodontics, in *Orthodontics: Current Principles and Techniques*, ed. T. Graber and R. Vanarsdall Jr., Mosby, St. Louis, 1994.

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