

Enhancing Feasibility and Comfort in Lingual Orthodontics

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Lingual Orthodontic treatment poses several mechanical problems to the doctor.¹ It is also challenging for the patient in terms of comfort and adaptability. For example, irritation from poking archwires especially in the molar area is a common occurrence. Also changing wires is a big ordeal. A small trick however, when applied to the archwire in conjunction with Self-ligating bracket system can alleviate some of these problems.²

Procedure:

1. Take a working wire like .016/.022 SS on which sliding mechanics are to be performed. Ligate the wire in the patient's mouth and mark the wire where it exits the self-ligating molar bracket† or tube.
2. Remove the archwire from the patient's mouth and apply silver solder paste with flux† at the marked point on the wire (Fig. 1) and fuse it there with the help of a Micro Torch. Flame only the part of the wire where the premix paste is applied and when it turns red hot, quench the wire in a bowl of water. A small ball will be formed on the terminal end of the wire (Fig. 1), which can be reduced to an apt size and smoothed, with the help of a stone. The same procedure is repeated on the other end of the wire as well (Fig. 2). Once the terminal ends of the archwire have been modified, the same is ready for installation in the patient's mouth (Fig. 3).



Figure 1. Silver solder paste with flux is applied to the distal end of the archwire.



Figure 2. The modified distal ends of the archwire.



Figure 3. The modified archwire in place.

Discussion

Modifying the stainless steel working wire can be really useful during the sliding mechanics, as this rules out any possibility of causing irritation or accidental laceration to the tongue. This is so because the distal ends of the wire are already rounded-off. The procedure also results in saving time, as the operator doesn't have to cut the distal end of the archwire and remove the same from the patient's mouth for annealing at every appointment. Since this archwire modification can be carried out only in conjunction with the self-ligating bracket system, it gives the operator the freedom to crimp the distal ends of the wire at the molar brackets / tubes even before it is installed in the patient's mouth. (Fig. 4). As a result chair- time is reduced and distal (right-angled) bends can be given with precision.



Figure 4. The arrows indicate toward the preformed distal bends.

Conclusion

1. Reduces chair-time.
2. Improves patient's comfort and adaptability.

†Evolution Bracket, Adenta GmgH., GutenbergstraBe 9., 8205, Gilching, Germany.

‡Ortho Organizers., 1822 Aston Avenue., Carlsbad, CA 92008-7306.

References

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