

An Easy Method for Fixed Lingual Retainer: Case Report

Sabit Retainer Uygulamasında Basit Bir Yöntem

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ABSTRACT Canine-canine fixed retainers are commonly used at the present day. It is important to stabilize the wire during the bonding. In this study, an easy method for lingual retainers has been proposed. After debonding the brackets, an alginate impression was taken and a study cast was prepared. Multistrand rectangular wire was bended and adapted to the lingual surfaces of the incisor teeth on the cast. The mixed heavy body impression material was applied over the middle area of the wire, clothing the labial faces of central incisors. Heavy body material has gotten tough. Lingual surfaces of anterior teeth were pumiced, and isolated, etched, washed, and dried. The wire was transferred by the heavy body carrier. Bonding agent and light curing adhesive were applied to the free ends of the wire. Then the heavy body carrier was cut and removed from the teeth without damaging the wire. The wire was bonded to the other teeth. The technique of heavy body carrier bonding is a simple process, which provides satisfactory stabilization.

Key Words: Orthodontic retainers, dental bonding

ÖZET Kaninden kanine uygulanan sabit ortodontik retainerler günümüzde sıklıkla kullanılmaktadır. Sabit retainerlerin yapıştırılması esnasında telin pozisyonlandırılması önemli bir husustur. Bu çalışmada sabit lingual retainer uygulamasında oldukça basit bir yöntem sunulmaktadır. Braketler söküldükten sonra çalışma modelleri elde edildi. Model üzerinde çok sarımlı dikdörtgen kesitli retainer teli bükümle şekillendirildi. Hazırlanan yoğun silikon esaslı ölçü materyali, orta kesici dişlerin vestibule yüzüne taşacak şekilde, retainer teli üzerine orta bölgesinden uygulandı. Ölçü materyali sertleşti. Dişler pomez ile temizlendi, izole edildi, asitlendi, yıkandı ve kurulandı. Yoğun silikon esaslı taşıyıcı ile retainer teli ağza taşındı. Işıklı polimerize olan kompozit materyal ile her iki uç yapıştırılarak retainerin ağızda stabilizasyonu sağlandı. Yoğun silikon esaslı taşıyıcı kesilerek uzaklaştırıldı. Retainer tek tek tüm dişlere yapıştırıldı, işlem tamamlandı. Yoğun silikon esaslı taşıyıcı ile taşıma tekniği yeterli stabilizasyon sağlayan oldukça basit bir yöntemdir.

Anahtar Kelimeler: Ortodontik retainer, yapıştırma

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At the end of the active orthodontic treatment, a retention is recommended for stabilization of the teeth on finished position. Both removable appliances and non-compliance fixed retainers can be used at the retention phase. Canine-canine fixed retainers are commonly used at the present day.¹⁻³

It is important to stabilize the wire during the bonding. Any moving of the wire during application, causes bond failure, and then, relapse of the

treatment.⁴ The wire can be fixed with a finger. In this technique, however, the shifting risk of the wire is very high. In order to keep the wire on proper position, dental floss, elastic chain and roundels or magnetic devices can be used. In addition, there are different types of transfer trays or indirect bonding techniques to bond the lingual retainers.⁴⁻¹⁰

CASE REPORT

After debonding the brackets, an alginate impression was taken and the study cast was prepared. The multistrand rectangular wire (Bond a Braid*) was bended (Figure 1). The bended wire was fixed by boxing wax from the end points (Figure 2). The mixed heavy body impression material (Elite**) was applied over the middle area of the wire (Figure 3). The impression material was extended to the labial surfaces of the teeth. On the lingual area, a slight contact with teeth and wire was enough. The boxing wax was removed with an instrument.

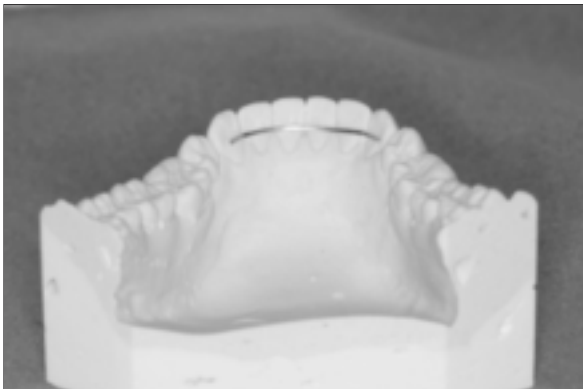


FIGURE 1: Shows bended multistrand wire on the cast.



FIGURE 2: Shows the fixed wire by boxing wax.

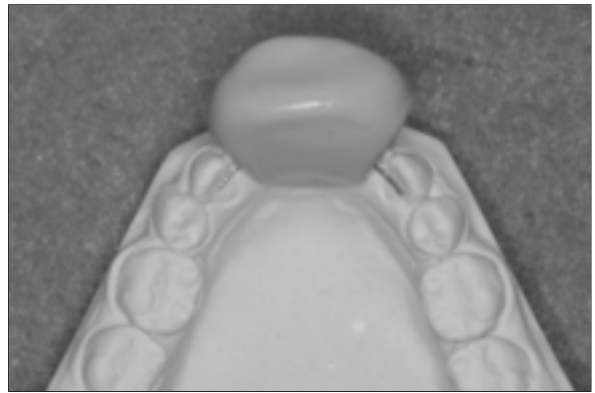


FIGURE 3: Shows the heavy body carrier.

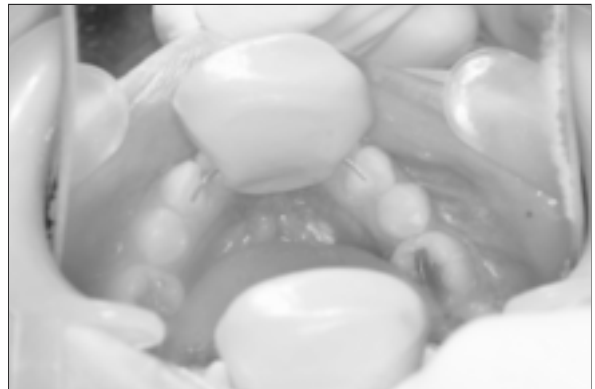


FIGURE 4: Shows the retainer wire, transferred to the mouth.

Lingual surfaces of anterior teeth were pumiced, and then, isolated, etched, washed, and dried as described elsewhere.^{3,11} The wire was transferred by the heavy body carrier (Figure 4). Bonding agent and light curing adhesive (Transbond XT) were applied respectively to the free ends of the wire (Figure 5). After the stabilization of the retainer, the heavy body carrier was cut with a bistoury and removed from the teeth without damaging the wire (Figure 6). The wire was bonded to the other teeth. Figure 7 shows the final phase of this application.

Advantages of this technique :

1. Short laboratory stage,
2. Simple and practical,
3. Short chair time,
4. Needs no additional materials,

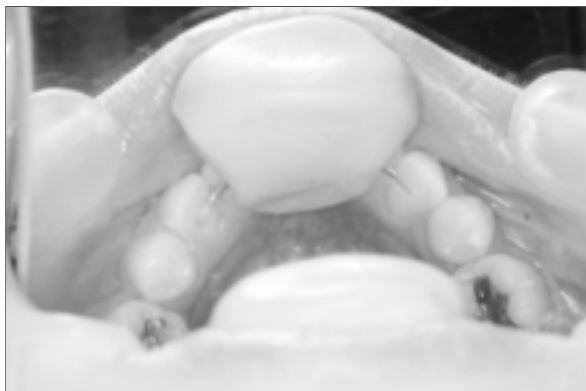


FIGURE 5: Shows retainer wire bonded to canins.



FIGURE 6: Shows removing heavy body carrier by bistoury.

5. The technique is suitable for both canine- canine and premolar - premolar retainers.

CONCLUSION

There are many techniques for bonding the fixed retainers. The technique of heavy body carrier bonding is a simple process, which provides satisfactory stabilization.

*: Bond A Braid: BAB, Reliance

** : Elite: Elite HD+, Zhermack



FIGURE 7: Shows the final phase of this application

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