

# An effective way of reactivation of first class appliance

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## Abstract

First class appliance produces rapid distalization of the maxillary first and second molars, even when the second molars are completely erupted. The range of molar distalization is 4-8 mm. It has both buccal and palatal component. Here, we are going to present a technique to reactivate a broken first class appliance for effective distalization.

**Key words:** First class appliance, molar distalization, nonextraction treatment

## INTRODUCTION

Distalization of molars is one of the nonextraction methods. First class appliance produces rapid distalization of the maxillary first and second molars, even when the second molars are completely erupted [Figure 1].<sup>[1]</sup> The range of molar distalization is 4-8 mm. It has both buccal and palatal component. Soldering is done on the palatal side of the maxillary second premolars and buccal side of the first molars. In this particular case, after 1-month of delivering the appliance, soldering on the maxillary left second premolar was broken that resulted in incomplete distalization [Figure 2]. Here, we are going to present a technique to reactivate the appliance for effective distalization.

## METHOD OF REACTIVATION

After removing nickel-titanium (NiTi) coil springs and butterfly shaped acrylic beads, bands of first molars and

second premolars were approximated by reversing the buccal screw. By doing this, premolar bands were came into distalized space. New bands were made on second premolars. Before taking the impression, premolar bands adjacent to the first molars were filled with modeling wax. All the bands (first molars and both the premolars) of each side, including palatal wire components, were transferred into impression. Impression was poured into the plaster of Paris. Palatal components were soldered on both the premolar bands of each side and both the premolar bands were also soldered with each other in contact area region. Modeling wax was removed and clear acrylic was filled in that space [Figure 3]. Thus, both the bands of premolars of each side act as one unit against molars. NiTi coil spring was installed and butterfly shaped acrylicization was done [Figure 4]. Repaired appliance was installed and after 1-month of distalization, molar relation was corrected into super class I relation [Figures 5 and 6].

## CONCLUSION

First class appliance is one of the most effective and rapid

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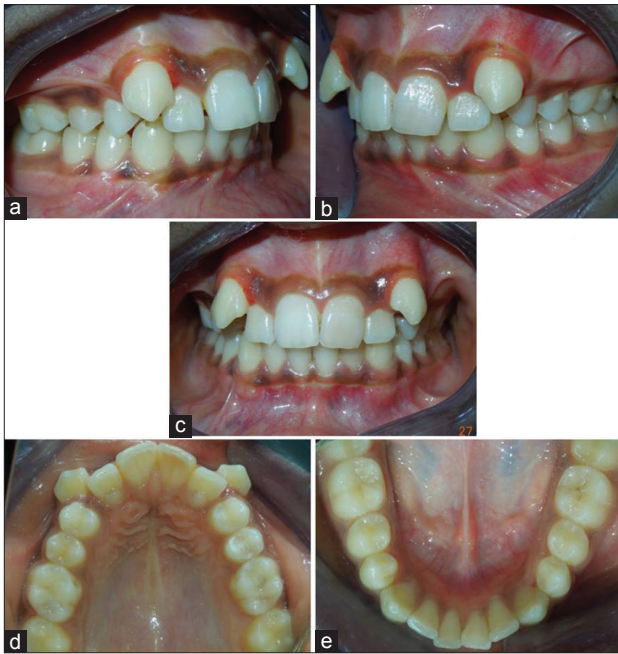
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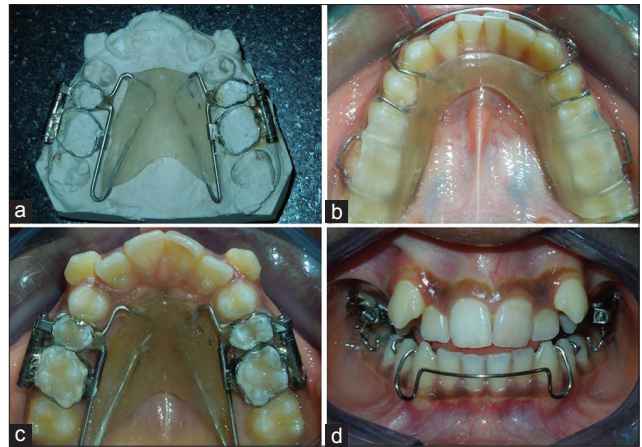
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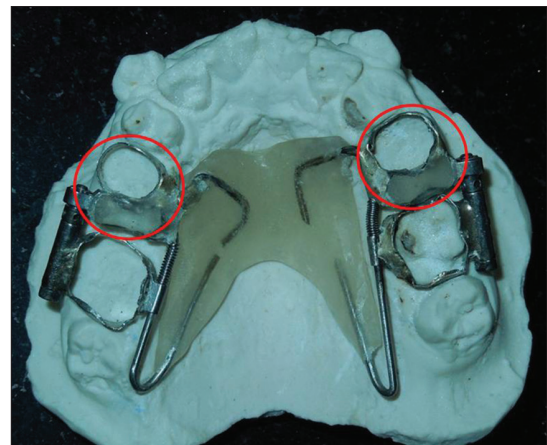
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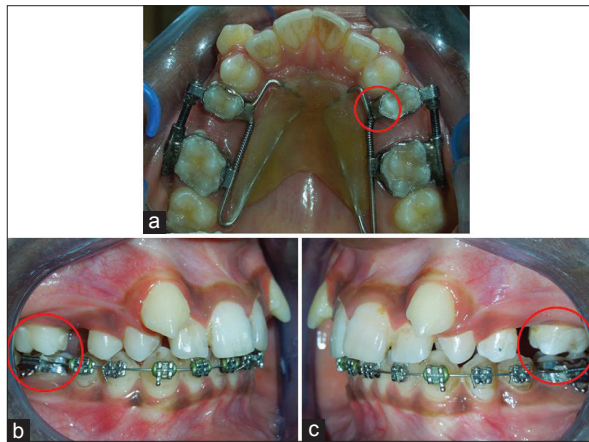
**Figure 1:** Pretreatment intraoral photographs. (a-b) lateral view, (c) frontal view, (d-e) occlusal view



**Figure 2:** (a-d) First class appliance installed with lower posterior bite plane to facilitate distalization



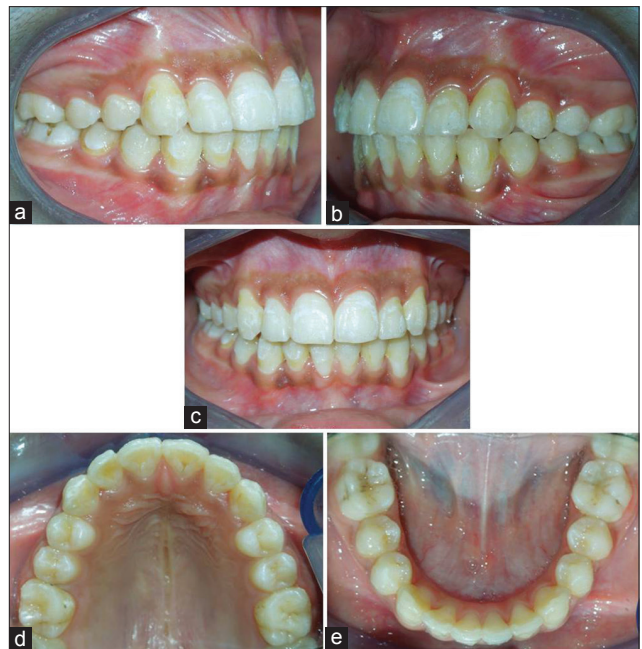
**Figure 4:** Repaired appliance with two premolar bands on each side with clear acrylic in the premolar bands in distalized space



**Figure 3:** (a) Broken appliance in the maxillary left second premolar region, (b and c) incomplete distalization after the full activation of buccal screw



**Figure 5:** (a-c) Complete molar distalization after 1-month of delivering repaired appliance



**Figure 6:** Posttreatment intraoral photographs. (a and b) lateral view, (c) frontal view, (d and e) occlusal view

means of distalization. Its range of activation can be increased by such type of reactivation method. However, precaution for anchorage loss in the anterior region should be taken into consideration.

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Nil.

#### **Conflicts of interest**

There are no conflicts of interest.

#### **REFERENCE**

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