

## Case Report

### A Modified Removable Catalan's Appliance For Correction Of Developing Anterior Cross Bite

Mahesh Kumar Y<sup>1</sup>, Fauzan Zaheer<sup>2</sup>, Sharad Kharyal<sup>3</sup>

<sup>1</sup> Professor - The Department of orthodontics, K.V.G. Dental College and Hospital, Sullia, Karnataka.

<sup>2</sup> PG Student - The Department of orthodontics, K.V.G. Dental College and Hospital, Sullia, Karnataka.

<sup>3</sup> PG Student - The Department of orthodontics, K.V.G. Dental College and Hospital, Sullia, Karnataka.

#### Abstract

Treating anterior crossbite with a comfortable and patient friendly appliance is one the most challenging tasks for the orthodontists. This article presents a Modified Catalan's appliance for treating a simple developing anterior crossbite.

Conclusion- The Modified Catalan's appliance is easy to fabricate and can serve as an effective and hygienic method for treating anterior dental crossbite instead of complicated fixed orthodontics.

#### Key Words

Anterior crossbite, Modified Catalan's.

#### Introduction

Anterior crossbite is defined as a malocclusion resulting from the lingual positioning of the maxillary anterior teeth in relationship to the mandibular anterior teeth. Anterior crossbites can be either dental or skeletal in origin. Anterior dental crossbite has a reported incidence of 4-5% and usually becomes evident during the early mixed dentition phase. The possible approaches to the treatment of a simple anterior dental crossbite include Tongue blade therapy, Lower inclined plane, Reversed stainless steel crowns, Hawley retainer with auxiliary springs, fixed appliances. Compared to fixed appliances, a removable appliance is comfortable and easily tolerated by the young patient, cause less irritation to the associated soft tissue and it is easy to maintain oral hygiene. This article presents a modified removable Catalan's appliance for treating a simple developing anterior dental crossbite.

#### Appliance Construction

1. The appliance is fabricated using clear self-cure resin on the mandibular working cast covering the entire dental area and extending upto the gingival margins on both buccal and lingual sides.
2. An inclined plane is built on the anterior teeth by adding the self-cure liquid and powder in small increments until the desired shape and size of the inclined plane is achieved.
3. The appliance is finished and polished and checked for fit in patient's mouth.



Fig 1. Appliance fabrication on working cast



Fig 2. Finished and polished appliance

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Address For Correspondence:

Mahesh Kumar Y

Professor - The Department of Orthodontics, K.V.G.  
Dental College and Hospital, Sullia, Karnataka.



Fig 3. (a) Developing cross-bite in 11



Fig 3. (b) Appliance in place



Fig 3. (c) Corrected crossbite post treatment

The appliance should contact only the maxillary teeth to be moved. Patient is instructed to wear the appliance 24 hours except during meal times. During the subsequent visits acrylic may be added or removed to maintain correct contact with the maxillary teeth.

**Fig 3. (a) Developing cross-bite in 11**

**Fig 3. (b) Appliance in place**

**Fig 3. (c) Corrected crossbite post treatment**

**Advantages**

1. Inexpensive and easy to fabricate without requiring any special equipment.
2. Comfortable and easy to maintain hygiene.

**Conclusion**

The modified removable Catalan's appliance can serve as an effective method for treating anterior dental crossbite instead of complicated fixed orthodontics. It is easy to fabricate, well tolerated by patient, and easy to clean. General practitioners and orthodontists can utilize this technique to manage cases with similar malocclusions.

**References**

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