

Simplified Approach to Scissor Bite Correction: A Case Report

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ABSTRACT

Correction of scissor bite is an essential part of orthodontic treatment as it leads to the establishment of proper molar interdigitation essential for good functional and occlusion efficiency. The procedures involved in the correction of posterior scissor bite are either critical or require patient compliance. This article presents one similar case treated and retained successfully with such a modified appliance. The modification in trans palatal arch was done by incorporating U Loops on both the arms, attached with NiTi closed coil spring or elastic chain as per patient's convenience.

KEYWORDS: Scissor Bite, U Loop, Niti wire,

INTRODUCTION

The buccal displacement of a maxillary posterior tooth, with contact or without contact with the palatal surface of the maxillary palatal cusp and the buccal cusp on the buccal surface of the mandibular antagonist tooth has been successfully treated orthodontically. ¹This article presents one similar case treated and retained successfully with such a modified appliance

CASE REPORT

A 17 year old boy reported to the department with the chief complaint of forwardly placed teeth in the upper front tooth. The patient had a straight profile with mild incompetent lips, on intraoral examination bilateral scissor bite was present i.r.t maxillary second molars as shown in Fig.1 Initially modified bite block with lingual button was given to correct the cross bite with cross elastics, but due to poor patient compliance an alternate treatment was planned (Fig.2).



Fig. 1

A 0.022 x 0.028 MBT brackets were used. First and second molars were banded, and full appliance was



Fig. 2

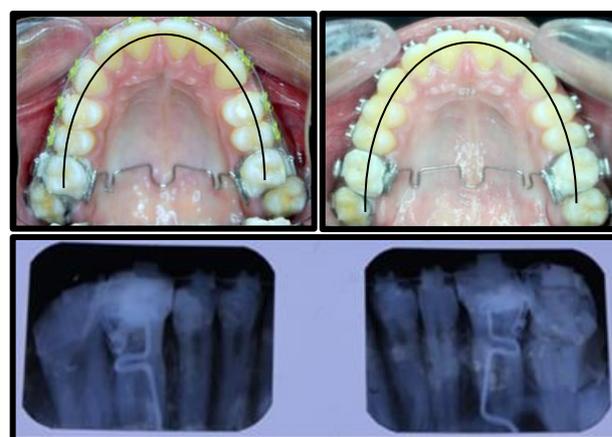


Fig. 3

bonded in upper and lower arch.

The scissor bite correction was done on 0.019x0.025 HANT wire. A modified trans palatal arch was used in which additional 'U' loops were incorporated in both the arms for the engagement of NiTi closed coil spring. The NiTi coil spring was stretched from the 'U' loop of the TPA to the molar hook of the second molars respectively

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on both the sides (activation on the second & third visit). In a span of 4-5 months the molar correction was achieved with a bodily movement without any periodontal problem as confirmed with radiographs. (Fig.3)

DISCUSSION

Scissor bite is a condition in which one tooth or teeth are abnormally positioned buccally or lingually with reference to the opposing tooth or teeth. Scissors-bite applies to total maxillary buccal (or mandibular lingual) crossbite, with the mandibular dentition completely contained in the maxillary dentition in habitual occlusion.² A complete buccal crossbite, known as Brodie bite, is caused by a combination of excessive maxillary width and a narrow mandibular alveolar process.³ There are several treatment modalities present for the correction of cross bite/ scissor bite like use of cross elastics², surgical correction using Periodontally Accelerated Osteogenic Orthodontics² but the patient compliance, invasive surgery and increased cost of the treatment are the limiting factors. Another method employed was to use the molar intrusion arch. Limitations that were involved were the use of several teeth for enforcement and change of occlusion despite all efforts.⁴ In younger patients rapid maxillary expansion appliance can be used, but in adults, slow expansion using conventional non surgical methods or segmental surgical intervention are mostly not accepted by patients, as it increases the

treatment time and may also affect the periodontal health if done beyond a limit.⁵

CONCLUSION

The present article demonstrates the modification in the design of TPA. The modification was done by incorporating 'U' Loops on both the arm's and attaching NiTi Closed Coil Spring. This helped in scissor bite correction within a short period of time and in a simple manner.

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