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& GOLD SCISSORS

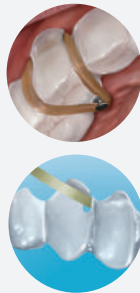
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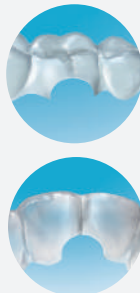
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打凹在mesial或distal side



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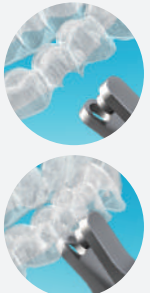
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織的壓力



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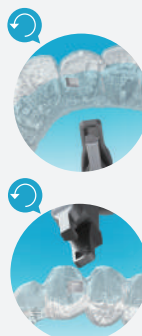
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小, 使器械更容易深入隱
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Pseudo-Class III with Anterior Crossbite, Severe Crowding, and Retained Primary Teeth

Abstract

History: A 12yr-7mo-old female presented with a chief complaint (CC) of anterior crossbite and severe crowding.

Diagnosis: The patient had two retained primary teeth with impacted permanent teeth causing severe crowding and anterior crossbite. Functional shift was present. Cephalometric analysis revealed an ANB angle of 2°, SN-MP of 31.5°, and a protruded lower lip 5 mm to the E-line. The discrepancy index (DI) was 20 points.

Treatment: A Damon® system appliance with passive self-ligating brackets was applied to correct the dental malocclusion. Posterior and anterior bite turbos combined with Class III elastics were used to correct the anterior crossbite. Both retained primary teeth and 4 premolars were extracted to relieve the crowding. Bone screws were placed bilaterally in the mandibular buccal shelves to retract the mandibular arch. The active treatment time was 38 months.

Results: Retraction of the lower anterior segment and the lower lip was achieved to improve the profile. After 42 months of active treatment, the severe crowding was relieved, and the anterior crossbite was corrected with neither periodontal problems nor root resorption.

Conclusions: This case report demonstrates the use of a passive self-ligating appliance combined with temporary anchorage devices to effectively resolve a pseudo-Class III malocclusion with anterior crossbite and severe crowding. (*J Digital Orthod* 2024;75:32-47)

Key words:

Class III malocclusion, non-surgical treatment, anterior crossbite, bite turbos, torque selection

Introduction

Anterior crossbite is defined as a dental condition characterized by the lingual position of the upper anterior teeth in relation to lower anterior teeth, which is often related to Class III malocclusion traits. Within the Class III classification, two main subtypes are recognized: true Class III and pseudo-Class III.¹ True Class III is often manifested with genetically prognathic jaw and/or retrognathic maxilla; while a pseudo-Class III is usually characterized by a functional shift, meaning the anterior positioning of the mandible may result from abnormal incisal guidance that forces the mandible forward.^{1,2} Upon

guiding pseudo-Class III patients to redirect their mandibles to a centric relation (C_R) position, practitioners can evaluate the overjet or edge-to-edge position of the anterior teeth.³

The choice between orthodontic camouflage treatment and orthognathic surgery remains contentious in treating Class III malocclusions.⁴ An accurate diagnosis is crucial for effective treatment planning and improved prognosis. While true Class III features and cephalometric analyses are well-documented, the criteria for pseudo-Class III malocclusion and its dento-skeletal characteristics are poorly defined. Ambiguous criteria may lead

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Training Resident, Beethoven Orthodontic Center (Left)
Chris H. Chang,
Founder, Beethoven Orthodontic Center
Publisher, Journal of Digital Orthodontics (Center)
W. Eugene Roberts,
Editor-in-Chief, Journal of Digital Orthodontics (Right)



practitioners to overtreatment if a pseudo-Class III is mistaken for true skeletal Class III because of similar anterior crossbite.⁵ For clinicians evaluating anterior crossbite, it is advisable to employ Lin's 3-ring diagnostic method⁶ for identifying patients with a promising prognosis.

This report presents a typical pseudo-Class III with severe crowding and retained primary teeth. Various approaches are available for addressing anterior crossbite with crowding. Huang et al.⁷ introduced six methods for correcting anterior crossbite based on dental factors and skeletal diagnosis. While some clinicians advocate removable bite plates with lingual springs and tongue blade exercises,⁸ this report showcases a treatment approach using Damon passive self-ligating fixed appliance (Ormco, Glendora, CA) along with anterior bite turbos.

The dental nomenclature used in this report is a modified Palmer notation. Upper (U) and lower (L) arches, as well as the right (R) and left (L) sides, define four oral quadrants: UR, UL, LR, and LL. Teeth are numbered 1-8 from the midline in each quadrant, and deciduous teeth are delineated a-e.

Diagnosis & Etiology

A 12yr-7mo-old young female presented for orthodontic consultation with concerns of dental crowding and anterior crossbite. There was no contributing medical history, and there were no

signs or symptoms of temporomandibular disorder (TMD) or mandibular deviation on opening. In the front view, the patient's face appeared symmetrical, but her lateral profile showed a slightly protruded lower lip (Fig. 1). Upon redirecting her chin to the centric relation (C_R) position, a flatter profile could be attained (Fig. 2). The patient's smile revealed a conspicuous anterior crossbite, with only the lower anterior teeth visible (Fig. 1). During intraoral

CEPHALOMETRIC SUMMARY			
	PRE-TX	POST-TX	DIFF.
SKELETAL ANALYSIS			
SNA° (82°)	89°	90°	1°
SNB° (80°)	86.5°	88°	1.5°
ANB° (2°)	2°	1.5°	0.5°
SN-MP° (32°)	31.5°	34°	2.5°
FMA° (27°)	24.5°	27°	2.5°
DENTAL ANALYSIS			
U1 TO NA mm (4mm)	3	6	3
U1 TO SN° (104°)	104°	119.5°	15.5°
L1 TO NB mm (4mm)	8.5	5	3.5
L1 TO MP° (90°)	85.5°	74.5°	11°
FACIAL ANALYSIS			
E-LINE UL (-1mm)	0.5	2.5	2
E-LINE LL (0 mm)	5	3	2
%FH: Na-ANS-Gn (56%)	59%	58%	1%
Convexity: G-Sn-Pg (13°)	-11°	-5.5°	5.5°

■ Table 1: Cephalometric Summary



■ **Fig. 1:** Pre-treatment facial photograph

examination, a reverse overjet of -2 mm and an overbite of 6 mm were observed (Fig. 3). Severe crowding was noted, with UR2, UL2, and LR2 in lingual position (Fig. 3). Retention of the primary teeth, URc and LRe, resulted in impaction of UR3 and LR5 (Fig. 4). UL4 only partially erupted due to a lack of space (Fig. 3). The molar relationships were asymmetric, with a molar cusp-to-cusp relationship on the right side and Class I relationship on the left

(Fig. 5). The dental midline was slightly shifted to the left. Cephalometric analysis (Table 1) documented an ANB angle of 2°, with a SN-MP angle of 31.5° and 5-mm lower lip protrusion to the E-line. The American Board of Orthodontics (ABO) Discrepancy Index (DI) was 20 points, as shown in the supplementary Worksheet 1.⁹

Treatment Objectives

The treatment objectives were: (1) Correct anterior crossbite; (2) relieve crowding; (3) retract the lower lip; (4) create ideal overbite and overjet; and (5) establish functional Class I molar and canine relationships.

Treatment Plan

Extract the retained primary teeth: URc and LRe. Additionally, remove all 4s to relieve crowding and create space for proper arch alignment while preserving the natural upper lip position. Apply posterior bite turbos and inclined anterior bite plane to rectify the anterior crossbite. Class III elastics are indicated for further correction. To optimize the mechanics of Class III elastics, select low-torque brackets for the upper arch and high-



■ **Fig. 2:** Pre-treatment records
The left side presents patient's occlusion in centric occlusion (Co), and the right side shows patient's occlusion in centric relation (Cr).



■ Fig. 3: Pre-treatment intraoral photograph



■ Fig. 4: Pre-treatment panoramic radiograph

torque brackets for the lower arch. OrthoBoneScrews® (OBSs, iNewton Dental, Inc., Hsinchu City, Taiwan) are employed as supplemental anchorage to enhance the precision of tooth movement.

Treatment Alternative

In deciding whether orthognathic surgery is necessary, the primary consideration centered



■ Fig. 5: Pre-treatment study model showed a molar Class I on left side, but on the right side it was a cusp-to-cusp molar relationship.

around the Le Fort I procedure, complemented by bilateral intraoral vertical ramus osteotomies. This surgical approach was proposed as the optimal choice if the patient desired a substantial alteration in her facial appearance. It is important to note that camouflage techniques may have limitations in

reshaping the face. Considering the patient's age, delaying surgery until growth cessation is prudent. The patient and her parents refused surgery due to concerns related to hospitalization, associated high cost, and the potential risks of complications.

Treatment Progress

Extraction of the URc, LRe, and all four first premolars was scheduled to alleviate the severe crowding. A 0.014-inch slot Damon Q® (Ormco, Glendora, CA) fixed appliance, with passive self-ligating (PSL) brackets, was used. Initially, brackets were bonded on all lower teeth, excluding the second and third molars. The lingually-positioned LR2 was also left unbonded due to crowding. Instead, an open coil spring was inserted on the archwire to create space for it. Crowding was also present in the upper arch, resulting in blocked-in upper lateral incisors. Therefore, when the upper arch was bonded two months later, the two blocked-in lateral incisors were left unbonded, and open coil springs were applied to create space.

On the lower incisors, low-torque brackets were bonded in a reversed position to induce high torque effect. This choice aimed to improve lingual root movement of the lower anterior teeth to counteract potential side effect of retroclination caused by Class III elastics. Low-torque brackets were also used on the upper anteriors to encourage a more buccal root movement.

When bonding upper brackets, two bite turbos (glass ionomer cement, GIC) on both L6s were placed. An anterior bite plane was also bonded on the lower anterior teeth to open the bite for

anterior crossbite correction. Early light Class III elastics (Quail, 3/16-in, 2 oz; Ormco) from U6 to L5 on both sides were introduced for 3 months to correct anterior crossbite (Fig. 6).

In the fifth month (5M), after alignment of the lower incisors, anterior bite turbos were constructed with flowable resin on the lower anterior incisors to open the the intermaxillary space for correction of the anterior crossbite (Fig. 7). One month later (6M), both arches were changed to 0.014x0.025 NiTi archwire. At the same time, Class III elastics were temporarily stopped as they were exerting forces in the opposite direction of the open coil spring, making it challenging to create space for the lateral incisors.



Fig. 6:
 Left: Open coil spring used to create the space for lateral incisors.
 Right: Posterior bite turbos were placed on L6s, and Class III elastics were applied from U6 to L5 on both sides.



Fig. 7: Anterior bite plane on lingual side of lower front teeth

In the 8th month, upper crowding was improved, brackets were bonded on both upper lateral incisors, power chains were applied to pull both upper lateral incisors buccally, and stronger Class III elastics (Kangaroo, 3/16-in, 4,5 oz; Ormco) were utilized. Flowable resin was used to reactivate the open coil springs for further crowding relief. The anterior bite plane was removed, and anterior bite turbos were bonded on both lower lateral incisors (Fig. 8).

In the 14th month, the upper archwire was changed to 0.014x0.025" NiTi, and the lower archwire was changed to 0.017x0.025 TMA. Drop-in hooks were attached to each canine. One month later (15M), Class III elastics were changed to Fox (1/4-in, 3.5 oz; Ormco), and were extended from U6s to L3s rather than L5s to induce a stronger Class III elastics mechanics for clockwise mandibular movement.

In the 16th month, a root torque was applied on UR1 to even the gingival margins. In the 19th month, the upper and lower teeth were nearly aligned, and the anterior crossbite was nearly corrected. Torque control was removed (Fig. 9). At this stage, the occlusion was in an edge-to-edge position. Both upper and lower archwires were changed to 0.014x0.025" NiTi, and Class III elastics were reduced to a lighter force to slow down the procedure and wait for the roots to stabilize. One month later (20M), both archwires were changed back to 0.017x0.025" TMA, and stronger elastics (Fox, 1/4-in, 3.5oz; Ormco) were used from U6s to L3s.

In the 22nd month, miniscrews were installed bilaterally in the buccal shelves as an anchorage for heavier horizontal force pulling the lower arch



■ **Fig. 8:**

In the 8th month, flowable resin was used to compress and reactivate the open coil spring (left), and lower anterior bite turbos were installed (right).



■ **Fig. 9:**

Upper right central incisors before and after torque control

backward. Two months later (24M), in addition to the Class III elastics, a power chain was used from L3 to the miniscrew on both sides (Fig. 10).

In the 27th month, Class III elastics were stopped because the lower anterior teeth were lingually inclined. A +10° bend was made on the lower archwire to give the lower anteriors a lingual root torque. Then, the lower archwire was changed to a more rigid 0.016x0.025 SS wire. The use of power chains was continued to close the extraction gaps. In the following month (28M), the lower archwire was changed to 0.014x0.025" NiTi. Two months later (30M), it was changed again to 0.017x0.025" TMA.

In the 34th month, two bite turbos on the lingual side of both U1s were bonded to disocclude the upper anterior teeth from the lower brackets. Figure-eight ties were also used on both upper and lower arches



Fig. 10:
In addition to Class III elastics (blue line), a horizontal force from the miniscrew to L3 was engaged with a power chain to pull the whole lower arch backward.



Fig. 11:
An elastic was hooked from U3 to L3 and L4 bilaterally to close the occlusion gap.

from 3 to 3, assisted by power chains to close the gaps. After 5 months (39M), bilateral elastics from U3s to L3s and L4s were prescribed and used for 3 months to close the occlusion gap (Fig. 11).

Treatment Result

Following 42 months of active treatment, there was a remarkable improvement in the patient's facial esthetics (Fig. 12). Molar Class I relationships were achieved on both sides. The posttreatment panoramic radiograph confirmed the desirable alignment of root structure (Fig. 13) The superimposed cephalometric tracings illustrated a 3-mm proclination of the maxillary incisors, due to the correction of the anterior crossbite (Fig. 14). The treatment also resulted in a 15.5° increase in the axial inclination of the upper incisors (U1-SN), shifting from 104° to 119.5°, as well as a corresponding 11° decrease in the axial inclination of the lower incisors (L1-MP), from 85.5° to 74.5°. These changes resolved the anterior crossbite.

Concurrently, the retraction of the anterior segments led to retrusion of the lower lip. Note the mandibular plane angle (SN-MP) remained stable, as outlined in Table 1. The Cast-Radiograph Evaluation (CRE) score was calculated at 8 points, as depicted in the supplementary Worksheet 2. Pink and White esthetic score was calculated at 4 points, as depicted in the supplementary Worksheet 3. Full treatment progress is documented in Figs. 15-17. The pre- and posttreatment cephalometric radiograph along with the 3D models are documented in Figs. 18 and 19.

Discussion

Orthodontists must establish a precise diagnosis and develop a suitable treatment strategy to attain a desirable non-surgical result. Lin's 3-Ring Diagnosis (Fig. 20) indicated conservative treatment was feasible, while Chang's extraction decision chart (Table 2) provided an alert that extractions were needed to manage the asymmetry, protrusion, and crowding.



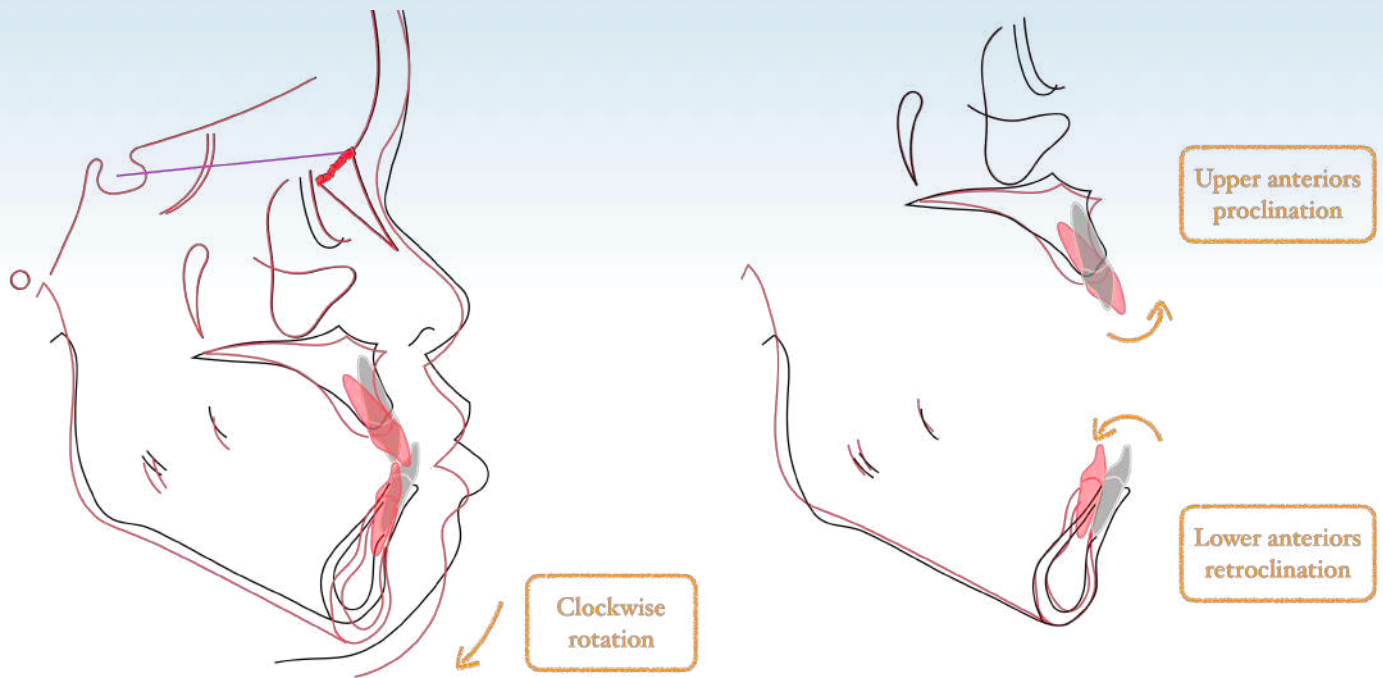
■ Fig. 12: Posttreatment facial and intraoral photographs



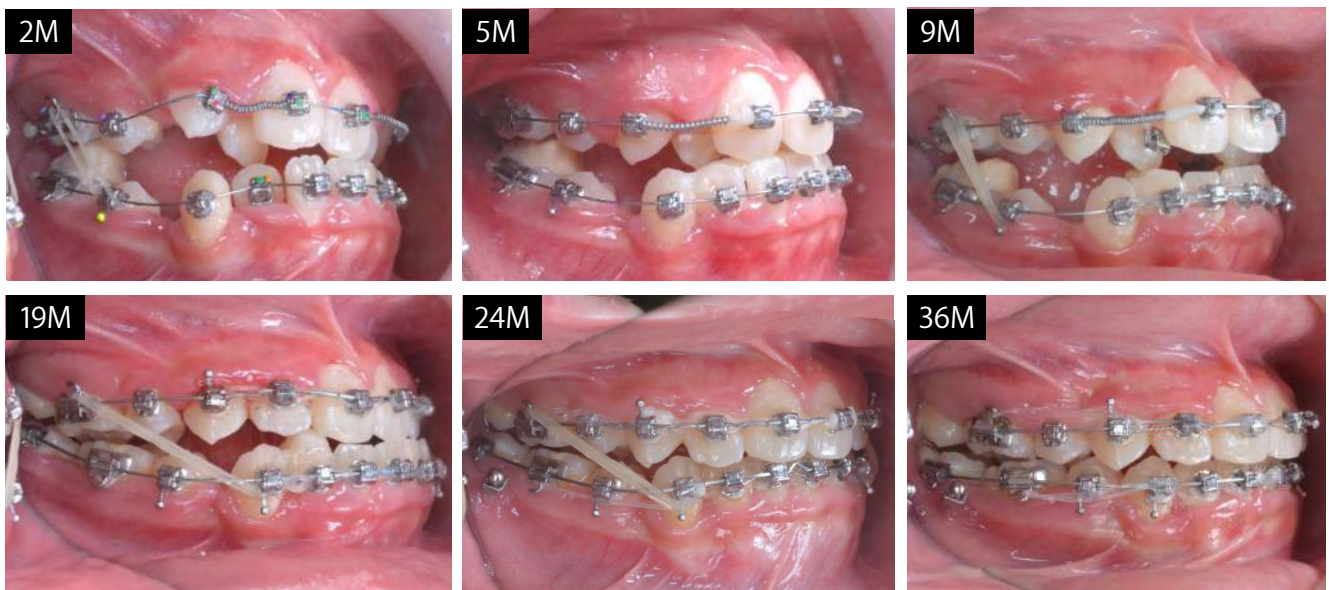
■ Fig. 13: Posttreatment panoramic radiograph

Class III mechanics

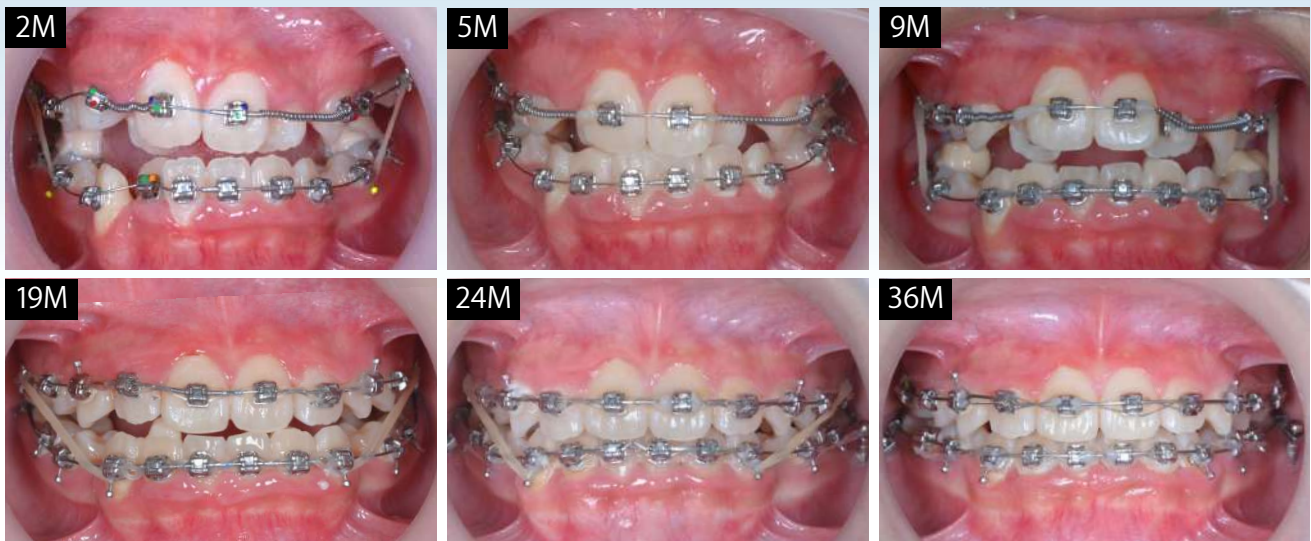
Class III camouflage treatment can result in greater axial inclination of the upper incisors and reduced axial inclination of the lower incisors.¹⁰ In this context, low-torque brackets installed upside down are commonly recommended for the upper incisors to promote greater lingual root torque and facilitate buccal root movement when Class III elastics are utilized. Additionally, pre-torqued archwires are



■ **Fig. 14:** Superimposed cephalometric tracings (black: pre-treatment; red: posttreatment) show a clockwise rotation of the mandible, proclination of the upper anteriors, and retroclination of the lower anteriors, which resulted in retrusion of the lower lip.



■ **Fig. 15:** Treatment progression from the right buccal view is shown in months (M).



■ **Fig. 16:** Treatment progression from the frontal view is shown in months (M).

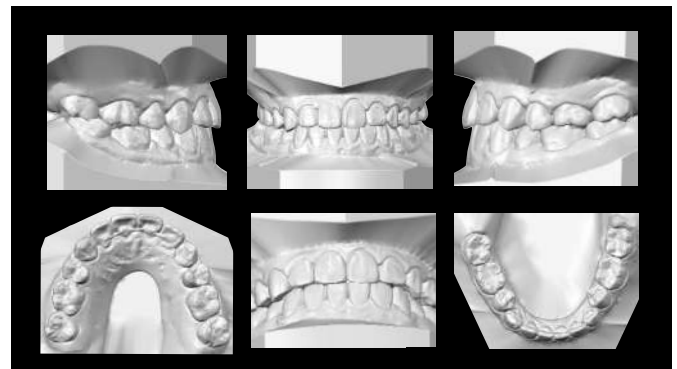


■ **Fig. 18:**
The pre- (left) and posttreatment (right) cephalometric radiographs

incorporated into the lower arch to enhance the lingual root torque of the anterior teeth.

Extraction protocol for mandibular arch retraction

Extraction spaces were strategically planned to address severe crowding and facilitate lower arch retraction. The patient presented with retained primary teeth, including the upper right canine and lower right second molar. To address the Class III



■ **Fig. 19:** Posttreatment 3D casts

malocclusion, extraction of the primary teeth were scheduled, as well as the partially erupted, impacted premolars. This approach facilitated correction of anterior crossbite and crowding.

Posterior and anterior bite turbos

Bite turbos open the bite, and can be positioned either in the anterior or posterior region of both dental arches. However, it is essential to consider

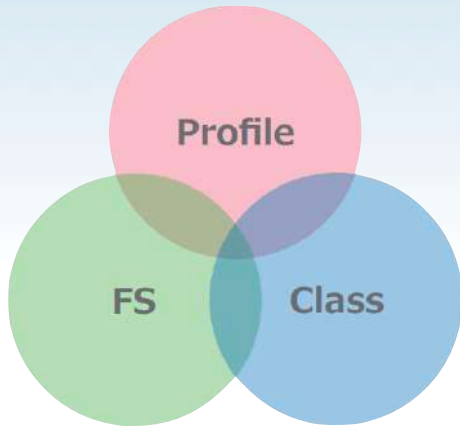


Fig. 20: Lin's three-ring diagnosis system assesses the potential for conservative correction of a Class III malocclusion with an anterior crossbite. Favorable factors are: (1) facial profile is acceptable when the mandible is positioned in centric relation (C_R); (2) Class I buccal segments in C_R ; and (3) functional shift (FS) is present from C_R to centric occlusion (C_O).

specific limitations when deciding whether or not to opt for this treatment option. In particular, it is not advisable to place bite turbos on teeth (1) that are relatively weak, such as upper lateral incisors, (2) that have previously undergone endodontic treatment or exhibit periodontal concerns, (3) with extensive restorations or temporary crowns, (4) that are isolated to avoid detrimental stress, or (5) teeth designated for movement as part of the overall treatment plan.¹¹ Bite turbos played a pivotal role in correcting the anterior crossbite. They served vital functions, including preventing premature contact on brackets, reducing tooth wear (especially in patients with parafunctional habits), promoting arch development, and creating the required interocclusal space for successful crossbite correction. A well-designed protocol for bite turbo placement and usage helped enhance dental function and esthetics while minimizing complications and adverse outcomes.¹²

Anterior bite plane/bite turbos

When addressing anterior crossbites, employing lower incisor bite turbos is an effective treatment strategy. Flowable resin is usually the preferred material for crafting these lower anterior devices due to easy adjustment to attain the desired bite opening. Furthermore, the vertical dimension of the bite turbo should be carefully designed to create the necessary intermaxillary space to ensure proper occlusion and alignment throughout active orthodontic treatment.

In Class III malocclusions, the use of anterior bite turbos can aid patients in achieving enhanced dental function and esthetics.¹³ In this case, the bite



	 Ext.	 Not
1. Profile	Protrusive	Straight
2. Md. angle	High	Low
3. Bite	Open	Deep
4. Ant. inclination	Flaring	Flat
5. Crowding	> 7mm	None
6. Decay/missing	Present	????
7. P't perception	OK	No
8. Etc...		

Table 2: Chang's extraction decision chart

turbos were strategically implemented to accelerate the initial orthodontic treatment phase. Simultaneously, intermaxillary Class III elastics were employed, utilizing the entire upper dentition as anchorage to retract the lower dentition.

Temporary skeletal anchorage devices (TSADs)

The inclusion of TSADs in this treatment is essential for lower arch retraction anchorage. In contrast to Class III elastics, TSADs offer a more robust osseous anchorage, effectively preventing excessive proclination of the upper incisors.¹⁴ The placement of buccal shelf bone screws was positioned outside the root area, rather than between the roots. This strategic placement allowed for the retraction of the entire mandibular dentition without any interference with root movements of the teeth.¹⁵

Conclusion

Successful treatment of severe crowding and retained primary teeth in a pseudo-Class III case was accomplished without the need for orthognathic surgery. A combination of anterior and posterior bite turbos, along with Class III elastics, yielded satisfactory results for the patient. To address the severe crowding, a treatment approach involving the extraction of four premolars complemented by the initial use of open coil springs was adopted. Additionally, the key to managing an unfavorable facial profile lay in the effective retraction of the lower arch. This was achieved without compromising the axial inclination of the anterior

teeth, thanks to the invaluable assistance of absolute anchorage provided by TSADs. Careful torque selection for the lower incisor brackets, combined with a pre-torqued archwire, counteracted the anticipated severe distal tipping of the lower incisors during space closure with the application of Class III elastics.

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Discrepancy Index Worksheet

TOTAL D.I. SCORE

20

OVERJET

0 mm. (edge-to-edge)	=	
1 - 3 mm.	=	0 pts.
3.1 - 5 mm.	=	2 pts.
5.1 - 7 mm.	=	3 pts.
7.1 - 9 mm.	=	4 pts.
> 9 mm.	=	5 pts.

Negative OJ (x-bite) 1 pt. per mm. Per tooth =

Total = 9

OVERBITE

0 - 3 mm.	=	0 pts.
3.1 - 5 mm.	=	2 pts.
5.1 - 7 mm.	=	3 pts.
Impinging (100%)	=	5 pts.

Total = 3

ANTERIOR OPEN BITE

0 mm. (Edge-to-edge), 1 pt. per tooth
Then 1 pt. per additional full mm. Per tooth

Total = 0

LATERAL OPEN BITE

2 pts. per mm. Per tooth

Total = 0

CROWDING (only one arch)

1 - 3 mm.	=	1 pt.
3.1 - 5 mm.	=	2 pts.
5.1 - 7 mm.	=	4 pts.
> 7 mm.	=	7 pts.

Total = 7

OCCLUSION

Class I to end on	=	0 pts.
End on Class II or III	=	2 pts. per side _____ pts.
Full Class II or III	=	4 pts. per side _____ pts.
Beyond Class II or III	=	1 pt. per mm. _____ pts. additional

Total = 0

LINGUAL POSTERIOR X-BITE

1 pt. per tooth Total = 1

BUCCAL POSTERIOR X-BITE

2 pts. Per tooth Total = 0

CEPHALOMETRICS (See Instructions)

ANB $\geq 6^\circ$ or $\leq -2^\circ$ = 4 pts.

Each degree $< -2^\circ$ _____ x 1 pt. = _____

Each degree $> 6^\circ$ _____ x 1 pt. = _____

SN-MP

$\geq 38^\circ$ = 2 pts.

Each degree $> 38^\circ$ _____ x 2 pts. = _____

$\leq 26^\circ$ = 1 pt.

Each degree $< 26^\circ$ _____ x 1 pt. = _____

I to MP $\geq 99^\circ$ = 1 pt.

Each degree $> 99^\circ$ _____ x 1 pt. = _____

Total = 0

OTHER (See Instructions)

Supernumerary teeth _____ x 1 pt. = _____

Ankylosis of perm. Teeth _____ x 2 pts. = _____

Anomalous morphology _____ x 2 pts. = _____

Impaction (except 3rd molars) _____ x 2 pts. = _____

Midline discrepancy (≥ 3 mm) @ 2 pts. = _____

Missing teeth (except 3rd molars) _____ x 1 pt. = _____

Missing teeth, congenital _____ x 2 pts. = _____

Spacing (4 or more, per arch) _____ x 2 pts. = _____

Spacing (Mx cent. diastema ≥ 2 mm) @ 2 pts. = _____

Tooth transposition _____ x 2 pts. = _____

Skeletal asymmetry (nonsurgical tx) @ 3 pts. = _____

Addl. treatment complexities _____ x 2 pts. = _____

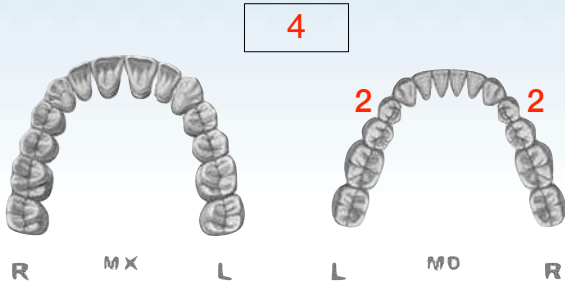
Identify:

Total = 0

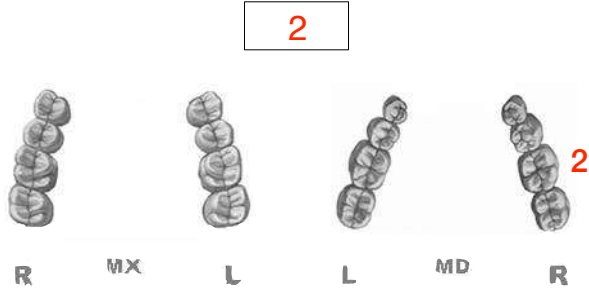
Cast-Radiograph Evaluation

Total Score: 8

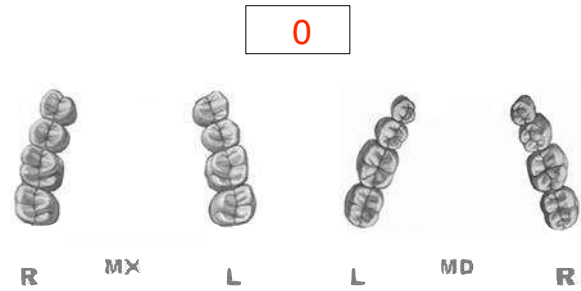
Alignment/Rotations



Marginal Ridges



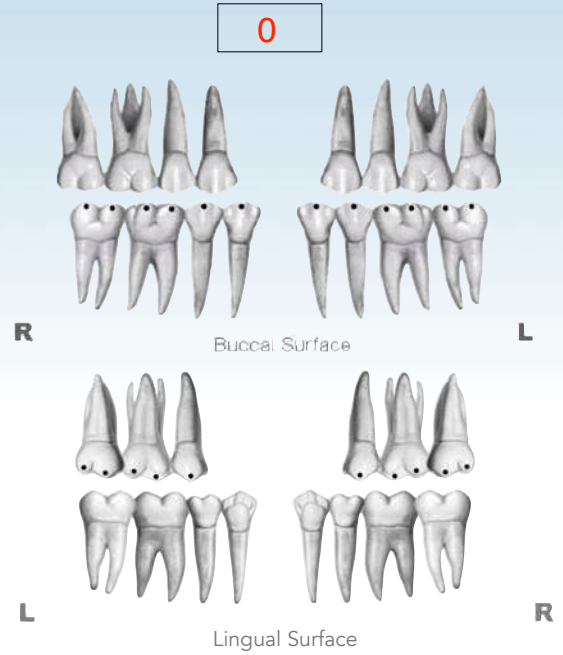
Buccolingual Inclination



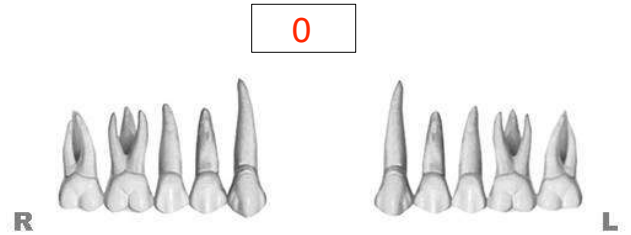
Overjet



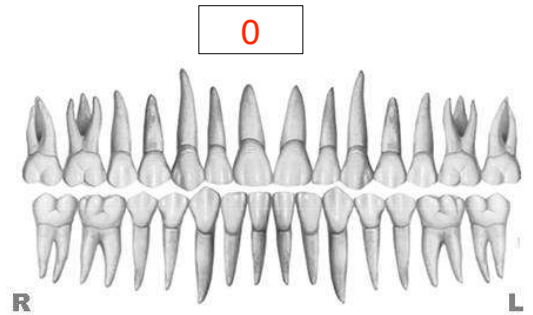
Occlusal Contacts



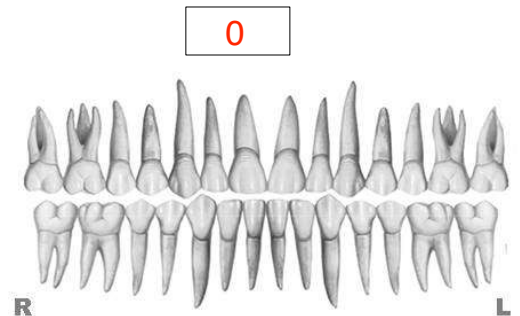
Occlusal Relationships



Interproximal Contacts



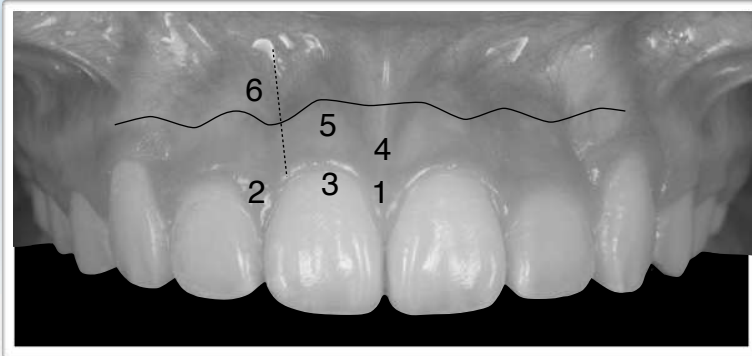
Root Angulation



INSTRUCTIONS: Place score beside each deficient tooth and enter total score for each parameter in the white box. Mark extracted teeth with "X". Second molars should be in occlusion.

Total Score = 4

1. Pink Esthetic Score

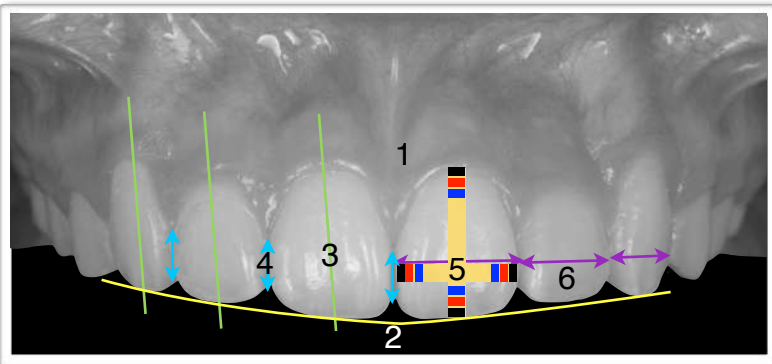


Total = 1

1. M & D Papillae	0	1	2
2. Keratinized Gingiva	0	1	2
3. Curvature of Gingival Margin	0	1	2
4. Level of Gingival Margin	0	1	2
5. Root Convexity (Torque)	0	1	2
6. Scar Formation	0	1	2

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2. Keratinized Gingiva	0	1	2
3. Curvature of Gingival Margin	0	1	2
4. Level of Gingival Margin	0	1	2
5. Root Convexity (Torque)	0	1	2
6. Scar Formation	0	1	2

2. White Esthetic Score (for Micro-esthetic)



Total = 3

1. Midline	0	1	2
2. Incisor Curve	0	1	2
3. Axial Inclination (5°, 8°, 10°)	0	1	2
4. Contact Area (50%, 40%, 30%)	0	1	2
5. Tooth Proportion	0	1	2
6. Tooth to Tooth Proportion	0	1	2

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2. Incisor Curve	0	1	2
3. Axial Inclination (5°, 8°, 10°)	0	1	2
4. Contact Area (50%, 40%, 30%)	0	1	2
5. Tooth Proportion	0	1	2
6. Tooth to Tooth Proportion	0	1	2



International Association for Orthodontists & Implantologists

Join the **iAOI** the future of dentistry!

About our association-iAOI

International Association of Orthodontists and Implantologists (iAOI) is the world's first professional association dedicated specifically for orthodontists and implantologists. The Association aims to promote the collaboration between these two specialties and encourage the combined treatment of orthodontic and implant therapy in order to provide better care for our patients.

How to join iAOI?

Certified members of the Association are expected to complete the following three stages of requirements.

1. Member

Doctors can go to <http://iaoi.pro> to apply for membership to join iAOI. Registered members will have the right to purchase a workbook in preparation for the entry exam.

2. Board eligible

All registered members can take the entry exam. Members will have an exclusive right to purchase a copy of iAOI workbook containing preparation materials for the certification exam. The examinees are expected to answer 100 randomly selected questions out of the 400 ones from the iAOI workbook. Those who score 70 points or above can become board eligible.

3. Diplomate

Board eligible members are required to present three written case reports, one of which has to be deliberated verbally. Members successfully passing both written and verbal examination will then be certified as Diplomate of iAOI.

4. Ambassador

Diplomates will have the opportunity to be invited to present six ortho-implant combined cases in the iAOI annual meeting. Afterwards, they become Ambassador of iAOI and will be awarded with a special golden plaque as the highest level of recognition in appreciation for their special contribution.



For more information on benefits and requirements of iAOI members, please visit our official website: <http://iaoi.pro>.

iAOI Ambassador & Diplomat

國際矯正植牙大使與院士



Ambassadors

Dr. Kenji Ojima



Dr. 林詩詠
Joshua Lin



44 pts

Dr. Diego
Peydro Herrero



Dr. 陳俊宏
Chun-Hung Chen



21 pts

Dr. 張銘珍
Ming-Jen Chang



18 pts

Dr. 曾令怡
Linda Tseng



16 pts

Ambassador (大使):

* One who has published 9+ case reports in JDO.

◆ Keynote speakers for iAOI annual workshops

▲ Case report(s) published at least once in referral journals.

● Referral journals/Research paper - 3 points
ABO case report - 2 points
Clinical tip - 1 point

Diplomates

Dr. 徐玉玲
Lynn Hsu



29 pts

Dr. 李雙安
Angle Lee



26 pts

Dr. 蘇釜璋
Bill Su



24 pts

Dr. 葉信吟
Hsin-Yin Yeh



20 pts

Dr. 徐重興
Eric Hsu



20 pts

Dr. 黃育新
Yu-Hsin Huang



18 pts

Dr. 黃祈
Richie Huang



16 pts

Dr. 邱上珍
Grace Chiu



13 pts

Dr. 黃瓊嬋
Sabrina Huang



13 pts

Dr. 鄭惠文
Joy Cheng



13 pts

Dr. 林彥君
Lexie Lin



13 pts

Dr. 曾淑萍
Shu-Ping Tseng



12 pts

Dr. 林曉鈴
Sheau-Ling Lin



10 pts

Dr. 張倩瑜
Charlene Chang



10 pts

Dr. 林佳宏
Alex Lin



10 pts

Dr. 林森田
Chris Lin



10 pts

Dr. 黃登楷
Kevin Huang



6 pts

Dr. 張馨文
Sara Chang



6 pts

Dr. 李名振
Major Lee



6 pts

Dr. 陳惠華
Judy Chen



6 pts

Dr. 魏明偉
Ming-Wei Wei



6 pts

Dr. 黃荷蕙
Ashley Huang



6 pts

Dr. 李彥峰
Yen-Feng Lee



6 pts

Dr. 張銘津
Ariel Chang



5 pts

Dr. 彭緯綸
Wei-Lun Peng



4 pts

Dr. 呂詩薇
Julie Lu



4 pts