

Extraction Treatment for a Class I Malocclusion with Bimaxillary Crowding and Deep Overbite

Abstract

A 23-year-1-month-old male presented for orthodontic consultation to evaluate crowding and facial protrusion. Clinical examination revealed a lower lip protrusion, increased facial height (58.5%), retrusive jaws (SNA 79.5°, SNB 74.5°), Class I molar relationship, bimaxillary crowding, flared incisors (U1 to SN 110°, L1 to MP 106°), excessive Curve of Spee, and deep overbite. The ABO Discrepancy Index (DI) was 21. All four first premolars were extracted and the malocclusion was treated with passive self-ligating brackets, sliding wire space closure, and auxiliary root torquing springs. Treatment outcomes are documented with an ABO Cast-Radiograph Evaluation (CRE) of 27 and a Pink & White (P&W) dental esthetic score of 4. (*J Digital Orthod* 2020;59:40-57)

Key words:

Crowding, deep overbite, torque control, passive self-ligating brackets, auxiliary root torquing (ART) spring

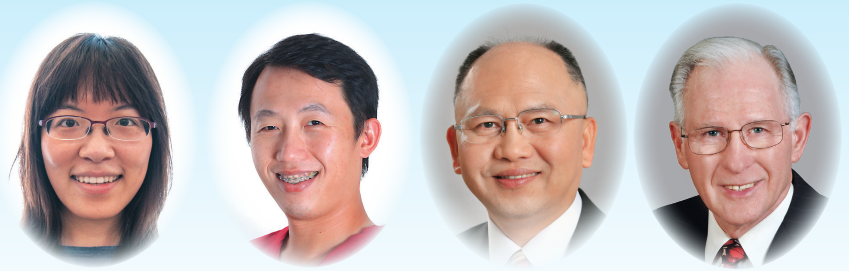
Introduction

Bimaxillary crowding with Class I molar relationship is very common among Asians.¹ Crowding is not only an esthetic problem, but may also lead to periodontal diseases due to difficulty in maintaining oral hygiene. Extracting four first premolars is an efficient way to relieve bimaxillary crowding,² but other factors must be considered, such as facial profile, lip protrusion, and mandibular plane angle. Torque control (*maintaining desired axial inclinations*) may be an issue while closing extraction sites. Tipping incisors distally (*loss of torque*) is common when spaces are closed in the arch.³ This case report documents extraction treatment for bimaxillary crowding, and details effective torque control measures for retracting maxillary incisors.

Diagnosis

Pretreatment records (Figs. 1-4) revealed the facial and dental morphology of the Class I crowded malocclusion. The face was symmetrical in the frontal plane, but the facial profile was protrusive due to a prominent lower lip (Fig. 1). An overjet of 6mm was associated with a deep overbite of 5.5mm (Fig. 2). The tooth size to arch length discrepancies (*crowding*) were -3mm in the upper arch and -10.5mm in the lower arch. There was no intermaxillary midline deviation, but the upper and lower central incisors were canted about 10° to the left (Fig. 5). No additional contributing medical or dental factors were reported.

Despite lower lip protrusion (5mm to the E-Line), cephalometric analysis revealed a relatively retrusive

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skeletal relationship ($SNA\ 79.5^\circ$, $SNB\ 74.5^\circ$) with an excessive ANB of 5° (Fig. 2, Table 1). The mandibular plane angle ($SN-MP\ 33^\circ$) and axial inclination of maxillary incisors were normal, but the lower incisors were flared to the mandibular plane (106°). The panoramic radiograph showed impacted, mesially inclined lower third molars (Fig. 4). Lower incisors were extruded, resulting in a deep Curve of Spee. No intermaxillary functional shift was noted, but central incisors in both arches were tipped about 10° to the left (Fig. 5). Temporomandibular joint (TMJ) imaging was symmetrical in the open and closed positions (Fig. 6). The American Board of Orthodontics (ABO) Discrepancy Index (DI) was 21 points as shown in the subsequent Worksheet 1.



■ Fig. 1: Pre-treatment facial and intraoral photographs

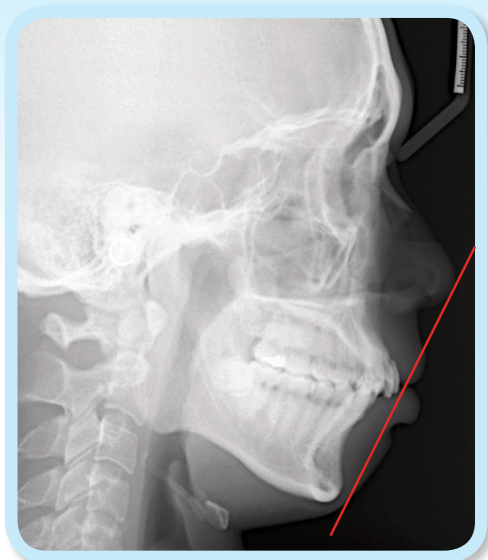


Fig. 2:
Pre-treatment cephalometric radiograph with a red E-Line to evaluate lip protrusion

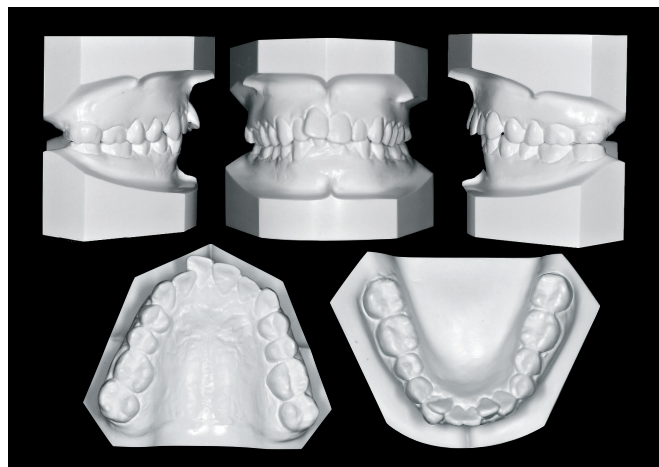


Fig. 3: Pre-treatment study models (casts)



Fig. 4: Pre-treatment panoramic radiograph



Fig. 5:
Frontal intraoral photograph with the bite opened shows deep lower Curve of Spee and the axial inclinations of the incisors. See text for details.

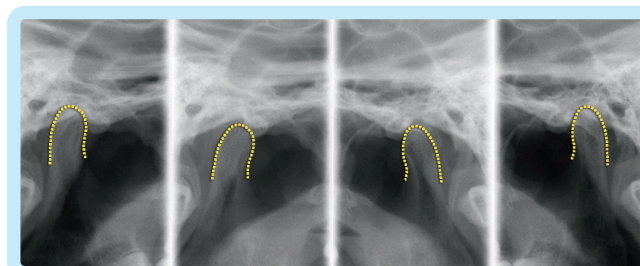


Fig. 6:
Pre-treatment temporomandibular joint (TMJ) radiographs show the right TMJ in the left two images and the left TMJ in the right two images. The closed positions (outside images) and the open positions (inside images) are shown, respectively.

Treatment Objectives

1. Maintain intermaxillary dimensions in all three skeletal planes.
2. Relieve crowding by extracting all four first premolars.
3. Level and align both dental arches.
4. Perform interproximal reduction (IPR) to reshape teeth and correct black triangles.
5. Correct overjet and overbite.

6. Align both arches.

7. Optimize occlusion (*intermaxillary contacts*).

Treatment Plan

According to the extraction decision table (Table 2), extraction is based on the evaluation of the profile, mandibular plane angle, overbite, axial inclination of incisors, crowding, and decayed or missing teeth.⁴ The current patient had a protrusive profile, flared incisors, and crowded arches. Arch development can be efficient for resolving crowding, but extraction of four first premolars is particularly effective for improving the profile, retracting incisors, and relieving severe crowding. After a discussion with the patient about the available options, the treatment plan selected was: extract four first premolars, use a passive self-ligating bracket system, and close space to resolve both crowding and lip protrusion. When optimal alignment is achieved, remove all fixed appliances and fabricate anterior fixed retainers.

CEPHALOMETRIC SUMMARY			
SKELETAL ANALYSIS			
	PRE-Tx	POST-Tx	DIFF.
SNA° (82°)	79.5°	79.5°	0°
SNB° (80°)	74.5°	74.5°	0°
ANB° (2°)	5°	5°	0°
SN-MP° (32°)	33°	34.5°	1.5°
FMA° (25°)	26°	27.5°	1.5°
DENTAL ANALYSIS			
U1 To NA mm (4 mm)	6	1	5
U1 To SN° (110°)	110°	95°	15°
L1 To NB mm (4 mm)	9	7	2
L1 To MP° (90°)	106°	102°	4°
FACIAL ANALYSIS			
E-LINE UL (2-3 mm)	1	1.5	0.5
E-LINE LL (1-2 mm)	5	4	1
%FH: Na-ANS-Gn (53%)	58.5%	59.5%	1%
Convexity: G-Sn-Pg' (13°)	12°	13°	1°

Table 1: Cephalometric summary

	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: Extraction decision table

Seven clinical factors are considered during the decision making process to extract teeth. Additional factors (8. Etc...) can be added as needed. Factors favoring and **not** favoring extraction are shown in the center and right columns, respectively.

Supplement retention with clear overlay retainers is prescribed for full-time wear for 6 months and then nights only indefinitely.

Treatment Progress

The Damon Q® passive self-ligating system (*Ormco, Brea, CA*) was selected as the fixed appliance and all archwires, elastics, and auxiliaries were produced by the same supplier. Following extraction of all four first premolars, the upper central incisors and canines were bonded with high torque brackets, and the adjacent lateral incisors were bonded with standard torque brackets. One month later, standard torque brackets were bonded on all teeth in the lower arch except for the right lateral incisor due to crowding.

Copper-nickel-titanium (*CuNiTi*), titanium molybdenum alloy (*TMA*), and stainless steel (*SS*) were the materials of choice. The upper arch was leveled and aligned with the following archwire sequence: 0.014-in *CuNiTi*, 0.018-in *CuNiTi*, 0.014x0.025-in *CuNiTi*, 0.017x0.025-in *TMA*, 0.016x0.025-in *SS*, and 0.016-in *SS*. The lower archwire sequence was 0.014-in *CuNiTi*, 0.014x0.025-in *CuNiTi*, 0.017x0.025-in *TMA*, and 0.016x0.025-in *SS* (*Table 3*).

When the initial lower archwire (0.014-in *CuNiTi*) was inserted at one month into treatment, an open coil spring was placed between the right central incisor and canine to create space for the lateral incisor. In the 2nd month of treatment, the archwire

on the upper arch was changed to 0.018-in *CuNiTi* to continue arch development as levelling and alignment were accomplished. Four months into treatment, the space between the lower right central incisor and canine was sufficient, so a bracket was bonded on the lower right lateral incisor.

In the 5th month of treatment, the upper archwire was changed to 0.014x0.025-in *CuNiTi* to continue arch development, as levelling and aligning was completed. In the 6th month, the upper anterior teeth were aligned, so the upper archwire was changed to 0.017x0.025-in *TMA*. The upper 3-3 segment was ligated with a figure-8 *SS* ligature tie to prevent space opening during retraction of the anterior segment. Power chains were applied from 7 to 7 on the upper arch for space closure. A 0.014x0.025-in *CuNiTi* archwire was placed on the lower arch. The patient was instructed to wear Class II elastics (*Quail 3/16-in, 2-oz*) for overjet correction.

In the 7th month of treatment, two anterior bite turbos (*occlusal prematurities*) were bonded on the lingual surfaces of the upper central incisors to facilitate deep bite correction (*Fig. 7*). The lower archwire was changed to 0.017x0.025-in *TMA*, and the lower 3-3 segment were ligated together with a figure-8 *SS* ligature tie. Power chains were applied from 7 to 7 in the lower arch for space closure. The patient was instructed to wear Class II elastics (*Fox 1/4-in, 3.5-oz*) full time.

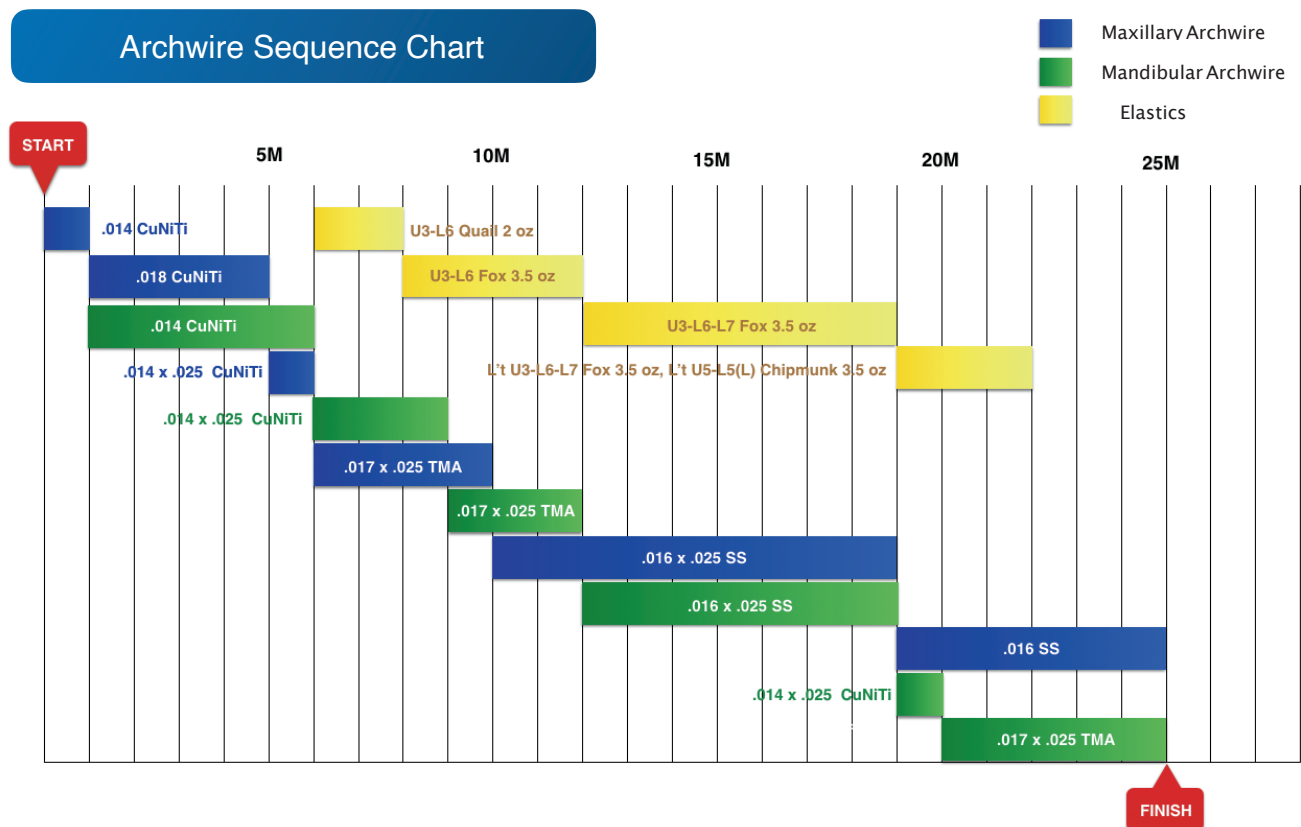
In the 10th month of treatment, the upper archwire



■ Fig. 7:

Anterior bite turbos were bonded on the lingual surfaces of the upper central incisors to facilitate deep bite correction.

was changed to 0.016x0.025-in SS. Since torque was lost for the upper incisors (2-2) during space closure, +15° torque was adjusted into the upper 2-2 area of the rectangular archwire. In the 11th month, it was clear that the torque applied on the wire was inadequate, so an auxiliary root torquing (ART) spring was used on the upper incisors to apply lingual root torque (Fig. 8). The patient was instructed to wear L-type elastics (Fox 1/4-in, 3.5oz.) from the upper canines to the lower molars to help correct the overjet. Treatment progression is shown



■ Table 3: Archwire sequence chart shows the initiation and duration of mechanics during active treatment.



Fig. 8:

An auxiliary root torquing (ART) spring delivers lingual root torque to the upper incisors.

in a sequence of intraoral photographs taken in the following planes: frontal (Fig. 9a), right buccal (Fig. 9b), left buccal (Fig. 9c), upper occlusal (Fig. 9d), and lower occlusal (Fig. 9e).

In the 12th month of treatment, the lower archwire was changed to 0.016x0.025-in SS, and reverse Curve of Spee was adjusted into the wire to flatten the arch. In the 15th month of treatment, torque for



Fig. 9a:

Consecutive frontal intraoral photographs document 25 months (M) of active treatment from the start (0M) to 25M in a clockwise order. See text for details.

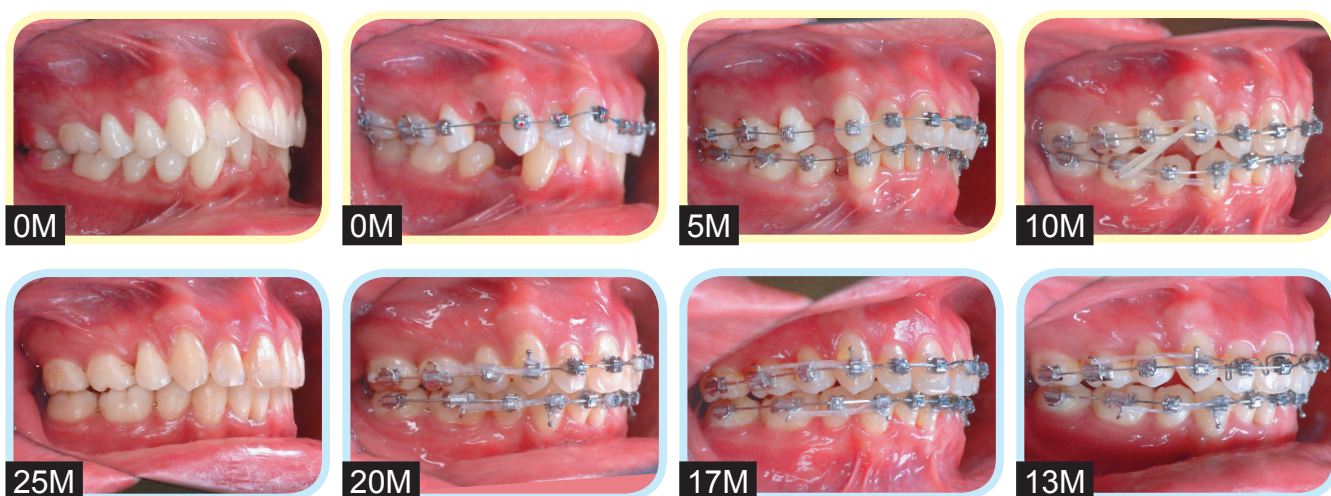
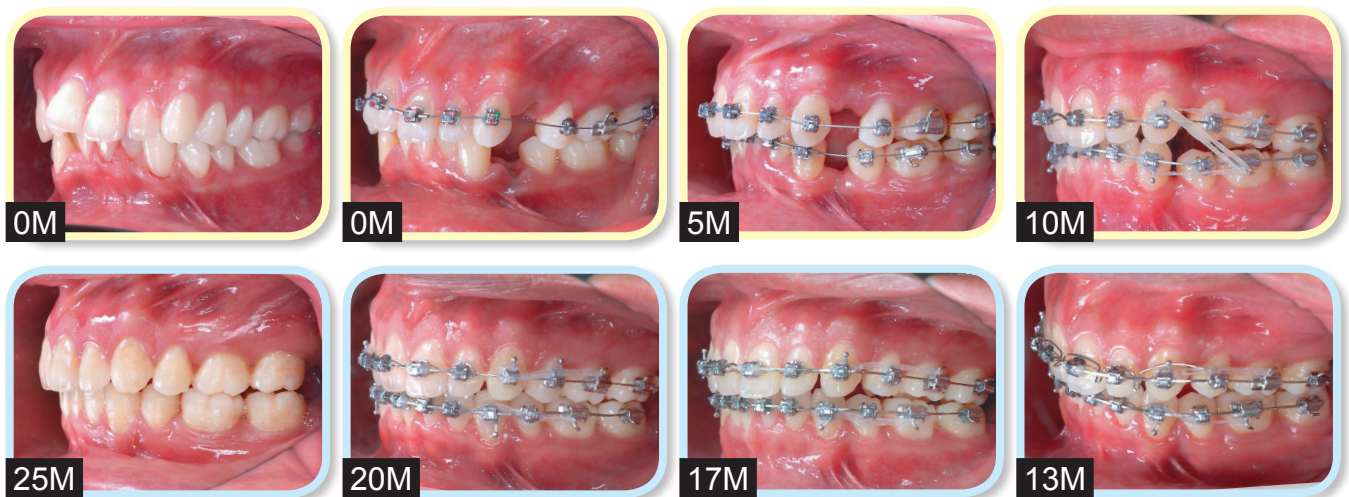


Fig. 9b:

Consecutive right-buccal intraoral photographs document 25 months (M) of active treatment from the start (0M) to 25M in a clockwise order. See text for details.

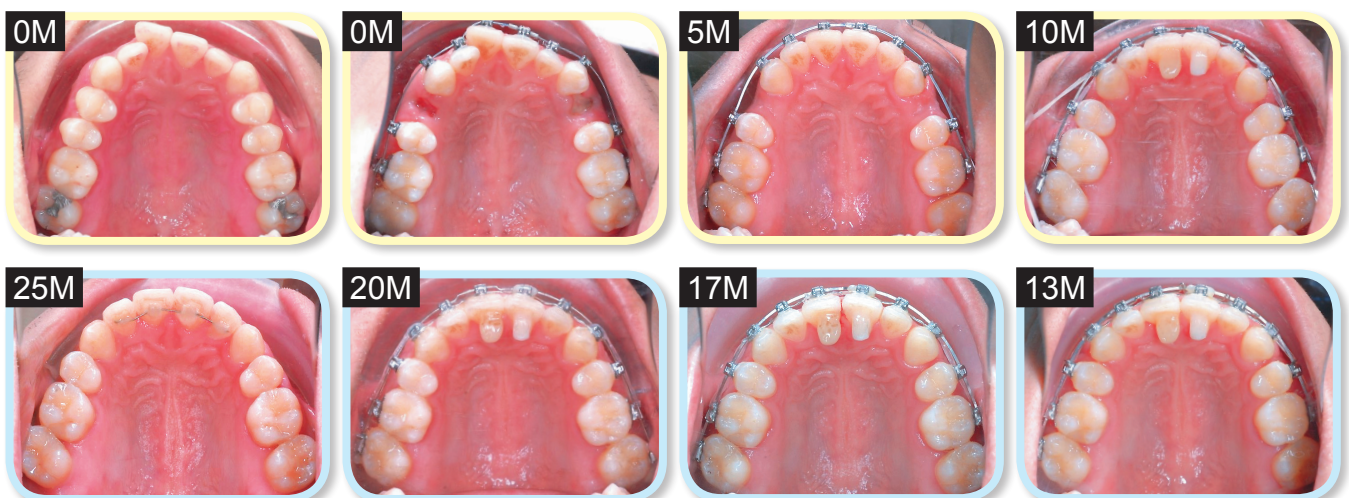
upper anteriors was adequate so the ART spring was removed. In the 16th month of treatment, interproximal reduction (IPR) was carried out on the lower right central and lateral incisors to change the triangular crown shapes to a more esthetic rectangular contour.

In the 17th month of treatment, a single tooth torquing spring (QS) was applied to the upper right central incisor to apply additional lingual root torque for detailing the occlusion. In the 19th month of treatment, the QS on the upper right central incisor was removed. A button was bonded on the lingual side of lower left 2nd premolar, and the patient was instructed to wear a cross-bite elastic (*Chipmunk 1/8-in, 3.5oz.*) from the buccal side of the upper left 2nd premolar to the lingual side of the lower left 2nd premolar to correct the bucco-



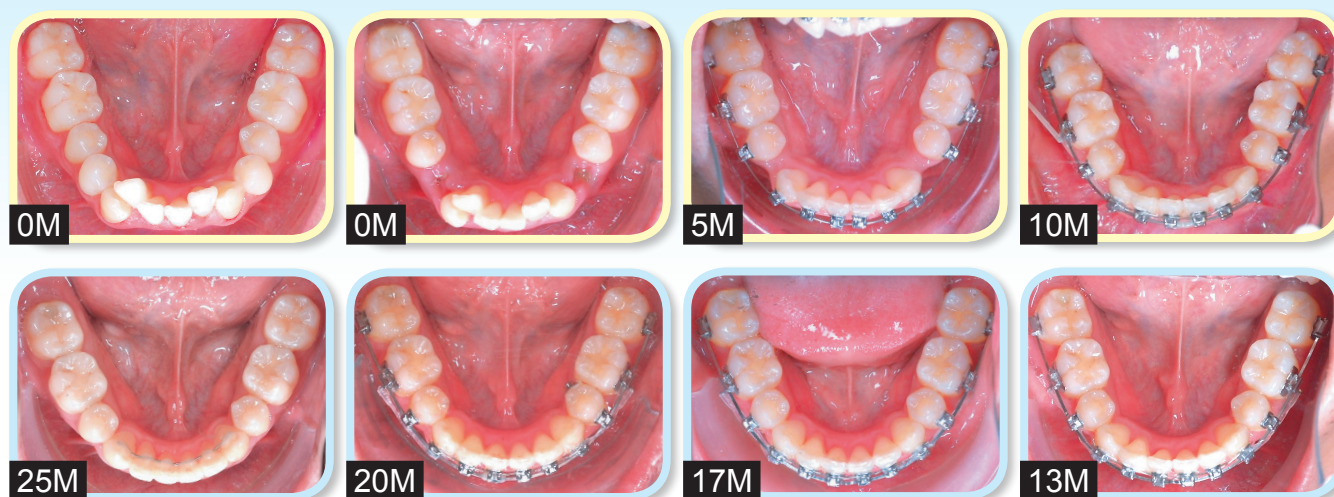
■ Fig. 9c:

Consecutive left-buccal intraoral photographs document 25 months (M) of active treatment from the start (0M) to 25M in a clockwise order. See text for details.



■ Fig. 9d:

Consecutive upper occlusal intraoral photographs document 25 months (M) of active treatment from the start (0M) to 25M in a clockwise order. See text for details.



■ Fig. 9e:

Consecutive lower occlusal intraoral photographs document 25 months (M) of active treatment from the start (0M) to 25M in a clockwise order. See text for details.

lingual relationship. On the left side, L-type elastics (Fox 1/4-in, 3.5oz.) from the upper canine to lower molars were used to correct the midline and detail the occlusion.

In the 22nd month of treatment, IPR was carried out on the lower central and lateral incisors to correct dark triangles. A power chain supplemented with power thread was applied to close the space created by the IPR. After 25 months of active treatment, all appliances were removed. Upper and lower clear overlay and fixed anterior (*upper 2-2, lower 3-3*) retainers were delivered to both arches.

Treatment Results

The patient was treated to the desired result as documented in Figs. 10-13. Note the horizontally impacted lower third molar (LL8) was removed, but the LR8 was still present and extraction was recommended. The superimposed cephalometric

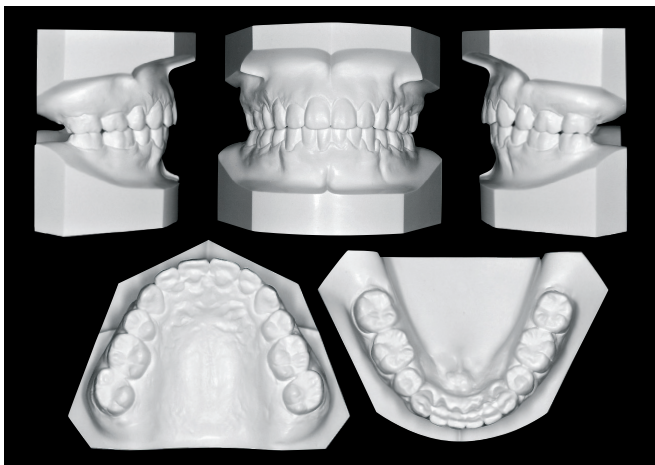
tracings are presented in Fig. 14. The space closure mechanics contributing to the cephalometric results are described for passive and active units in Figs. 15a-d. For the present patient, moderate anchorage (Fig. 15d) resulted in retraction of maxillary incisors and lower lip protrusion (Fig. 14).

A summary of the cephalometric measurements before and after treatment is provided in Table 1. The ABO Cast-Radiograph Evaluation (CRE) score was 27 points, as documented in the subsequent Worksheet 2. All premolar extraction spaces were closed and the large overjet was corrected. The major occlusal discrepancies were marginal ridges (5 *points*) and root angulation (3 *points*). Additional bracket repositioning particularly of the lower first molars would have improved the outcome.

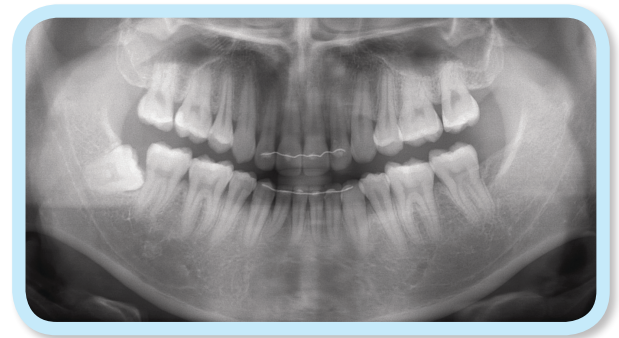
The Pink & White dental esthetic score was 4 points, as documented in Worksheet 3 appearing later in this report. Overall, the crowding was resolved and



■ Fig. 10: Post-treatment facial and intraoral photographs



■ Fig. 11: Post-treatment study models (casts)



■ Fig. 12: Post-treatment panoramic radiograph



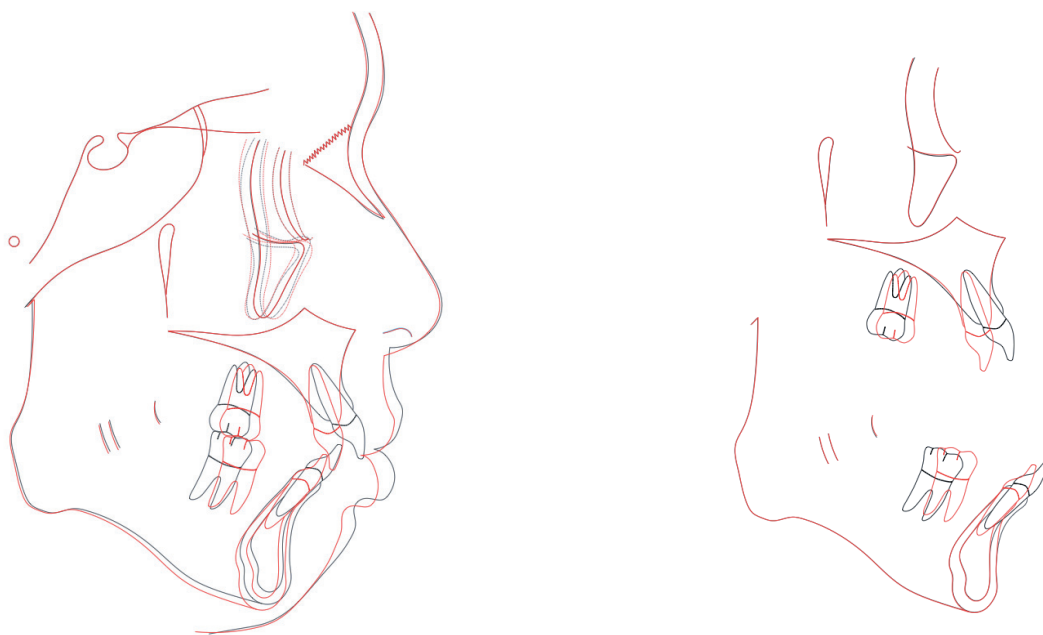
■ Fig. 13: Post-treatment cephalometric radiograph

the protrusive lower lip was corrected by retracting the upper and lower incisors. The patient was satisfied with the result.

Fixed retainers were bonded on all upper incisors and from canine to canine in the lower arch. Upper and lower clear overlay retainers were delivered. The patient was instructed to wear them full time for the first 6 months and then nights only thereafter. Home care and retainer maintenance instructions were also provided.

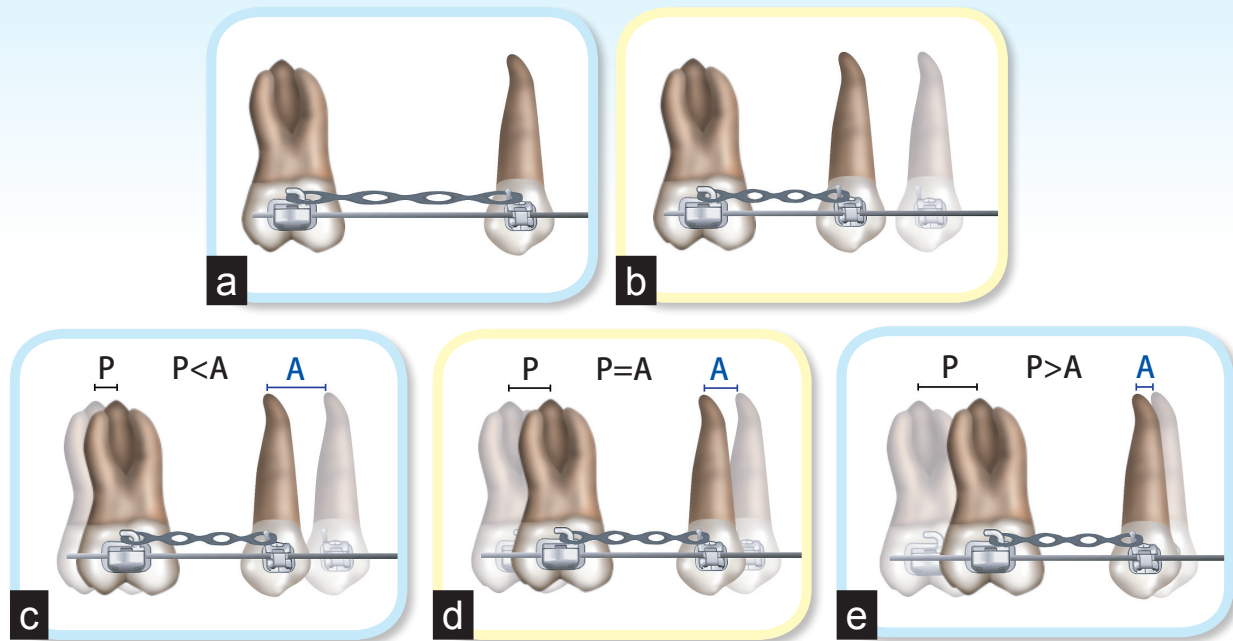
Discussion

Bimaxillary crowding with Class I molar relationship is common among Asians, and frequently premolars are extracted in all four quadrants to relieve the



■ Fig. 14:

Superimposed cephalometric tracings show the dentofacial changes after 25 months of active treatment (Pre-Tx: black; Post-Tx: red). The tracings are superimposed on the anterior cranial base (left), maxilla (upper right), and mandible (lower right). See text for details.



■ Fig. 15:

- Initiation of sliding wire space closure shows brackets engaged on an archwire with force delivered by a chain of elastics. The molar is defined as the passive unit and the premolar is deemed the active unit. See text for details.
- Absolute anchorage is when the passive molar is ankylosed or is stabilized with bone screws. The premolar is retracted but the molar does not move.
- Maximum anchorage ($P < A$) is defined as when the previously passive unit (P) moves less than the active unit (A). See text for details.
- Moderate anchorage ($P = A$) is defined as equal and opposite movement of the previously passive (P) and active (A) units.
- Minimal anchorage ($P > A$) is defined as more movement of the previously passive unit (P) compared to the active unit (A). See text for details.

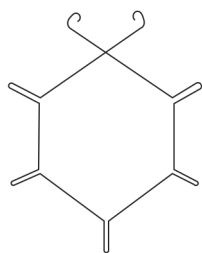
arch length discrepancy. An alternative is expanded archwires and self-ligating brackets to develop (expand) the arches to correct crowding without extractions. As illustrated in the extraction decision table (Table 2), the decision to remove teeth is based on an evaluation of the profile, mandibular plane angle, overbite, axial inclination of incisors, crowding, and decayed or missing teeth.⁴ The current patient had a protrusive lower lip, flared incisors, and crowded arches. Extracting four first premolars was deemed the most efficient approach for correcting the profile by retracting the incisors.

Two common complications during the closure of extraction spaces are loss of posterior anchorage and the "drawbridge effect" (distal tipping of incisors).

According to Newton's third law of motion, every action has an equal and opposite reaction, so anchorage control is an issue in extraction cases.⁵ For the present patient, it was desirable to utilize half of the extraction space for alleviation of crowding and retraction of the anterior segments, i.e. moderate anchorage (Fig. 15d). The protrusive profile of the patient was adequately resolved after levelling

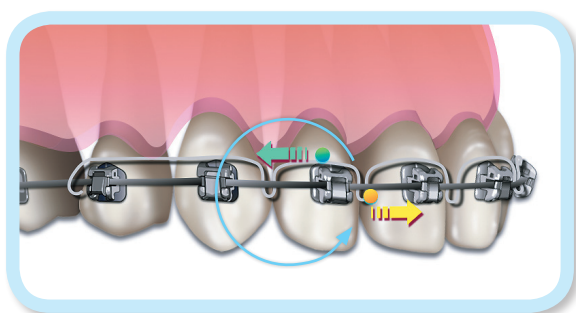
and alignment. Therefore, there was no need to supplement posterior anchorage with bone screws in either arch to achieve absolute anchorage (Fig. 15b).

Torque control is an additional complication associated with space closure. The anterior teeth may be tipped distally ("retroclined") after retracting the anterior segment.⁶ To avoid this undesirable



■ Fig. 16:

An ART spring is a round SS wire configured with vertical loops that is formed into a circle. There is a hook at each end of the ART spring to engage the archwire for activating the appliance. See text for details.



■ Fig. 17:

When the ART spring is activated by engaging the hook on the archwire, the vertical interproximal loops apply force relative to the archwire, which results in a couple on the incisors, which is a lingual root torque moment. Crown movement in the direction of the blue arrow is resisted by the cinched archwire. The equal and opposite moment (labial root torque) tends to move the crowns in the direction of the yellow arrow, but that undesirable effect is resisted by the cinched archwire. The net effect for ART spring mechanics is lingual root torque on the incisors. See text for details.

change in the upper arch, high torque brackets are indicated for the maxillary incisors. If torque loss is encountered during treatment, the problem can be resolved without replacing the brackets, and instead by adjusting +15° of lingual root torque into the anterior segment of the archwire and/or placing an auxiliary root torquing (ART) spring. ART springs are configured in a circle with a series of radially projecting U-shaped bent portions (*vertical loops*). Hooks are formed at each end of the ART spring to activate the device (Fig. 16). When the ART spring is activated, a distal force is applied to the clinical crown more apically than the level of the archwire, i.e. a mechanical couple. These mechanics result in a root lingual moment on the incisors (Fig. 17).

Interproximal reduction (IPR) of enamel has long been used in orthodontics to obtain more space for alignment, increase the length of interproximal contacts, render a more esthetic rectangular shape for triangular crowns, and reduce black triangles.^{7,8} The current patient had triangularly shaped lower



■ Fig. 18:

The patient had triangular lower incisors, especially the lower right central and lateral incisors. The affected teeth were reshaped with IPR. See text for details.

incisors, especially the lower right central and lateral incisors (Fig. 18). IPR was performed in the 16th month of treatment to improve alignment and esthetics. Subsequently, black triangles were noted superior to the gingival papillae of the lower incisors. In the 22nd month of treatment, IPR was repeated in the lower anterior region to create interproximal space for the correction of the black triangles with space closure.

Anterior turbos (*bite openers*) are excellent adjuncts for anterior deep bite correction. Bite turbos open

the bite and unlock intermaxillary interdigitation to allow extrusion of posterior teeth to flatten the arches. The increased freedom of tooth movement is effective for levelling the Curve of Spee, correcting deep bite, and avoiding interference with the lower brackets.⁹⁻¹² Anterior bite turbos facilitated intrusion of the lower incisors, extrusion of the posterior teeth, and produced an increase in the mandibular plane angle of 1.5°, to 27.5° (Fig. 7, Table 1).



■ Fig. 19: Facial and intraoral photographs at 4Y7M follow-up

Conclusions

A 23-year-old male presented with a protrusive lower lip, crowding in both arches, deepbite, and excessive overjet. After 25 months of treatment with extraction, the profile was improved, crowding was relieved, deepbite was corrected, and overjet was resolved. There are four keys to this case:

- (1) Extraction of four first premolars is efficient for simultaneously correcting crowding and for reducing lip protrusion to improve the facial profile.
- (2) Anterior bite turbos and Class II elastics are effective for resolving the large overjet and overbite.
- (3) Interproximal reduction provides arch length to correct crowding, improve lower incisor shape, and resolve black triangles.
- (4) Auxiliary root torque (ART) segments and individual tooth torquing springs are helpful for correcting axial inclinations of maxillary incisors.

Fig. 19 documents the current condition of the patient around 4 years and 7 months (4Y7M) post-treatment.

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Discrepancy Index Worksheet

TOTAL D.I. SCORE **21**

OVERJET

0 mm. (edge-to-edge)	=	1 pt.
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 = **3**

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 <u> </u> pts.
Full Class II or III	=	4 pts. per side <u> </u> pts.
Beyond Class II or III	=	1 pt. per mm. <u> </u> pts. additional

Total = **0**

LINGUAL POSTERIOR X-BITE

1 pt. per tooth Total = **0**

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. =

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

Each degree $> 99^\circ$ **7** x 1 pt. = **7**

Total = **8**

OTHER (See Instructions)

Supernumerary teeth	<u> </u> x 1 pt. = <u> </u>
Ankylosis of perm. teeth	<u> </u> x 2 pts. = <u> </u>
Anomalous morphology	<u> </u> x 2 pts. = <u> </u>
Impaction (except 3 rd molars)	<u> </u> x 2 pts. = <u> </u>
Midline discrepancy (≥ 3 mm)	@ 2 pts. = <u> </u>
Missing teeth (except 3 rd molars)	<u> </u> x 1 pts. = <u> </u>
Missing teeth, congenital	<u> </u> x 2 pts. = <u> </u>
Spacing (4 or more, per arch)	<u> </u> x 2 pts. = <u> </u>
Spacing (Mx cent. diastema ≥ 2 mm)	@ 2 pts. = <u> </u>
Tooth transposition	<u> </u> x 2 pts. = <u> </u>
Skeletal asymmetry (nonsurgical tx)	@ 3 pts. = <u> </u>
Addl. treatment complexities	<u> </u> x 2 pts. = <u> </u>

Identify:

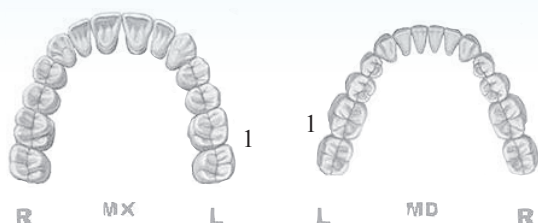
Total = **0**

Cast-Radiograph Evaluation

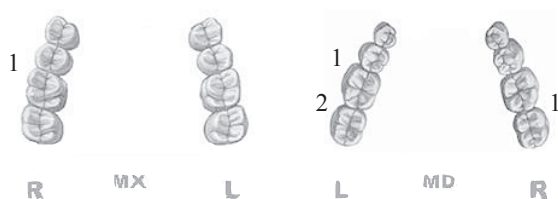
Case # Patient

Total Score: **27**

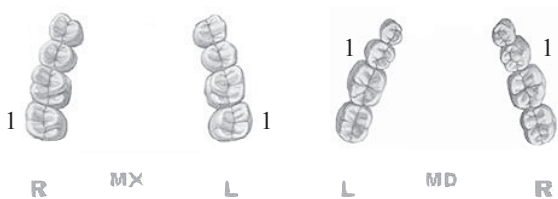
Alignment/Rotations

2

Marginal Ridges

5

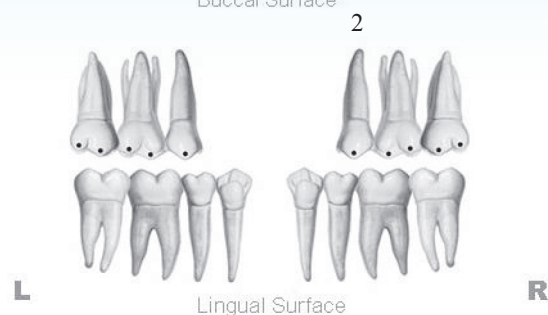
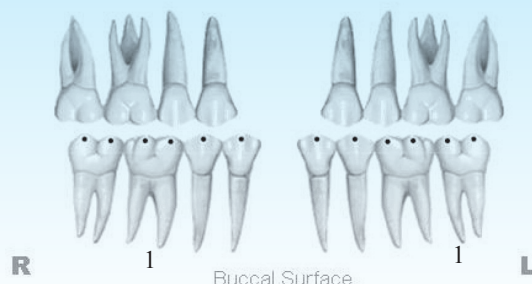
Buccolingual Inclination

4

Overjet

4

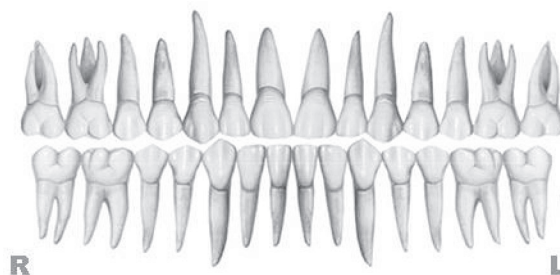
Occlusal Contacts

4

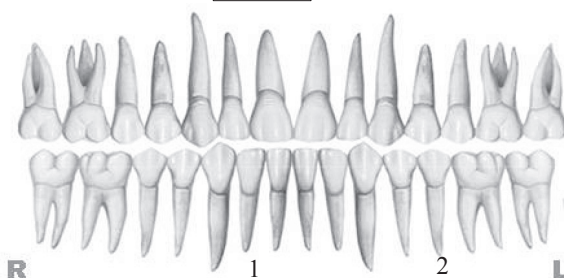
Occlusal Relationships

5

Interproximal Contacts

0

Root Angulation

3

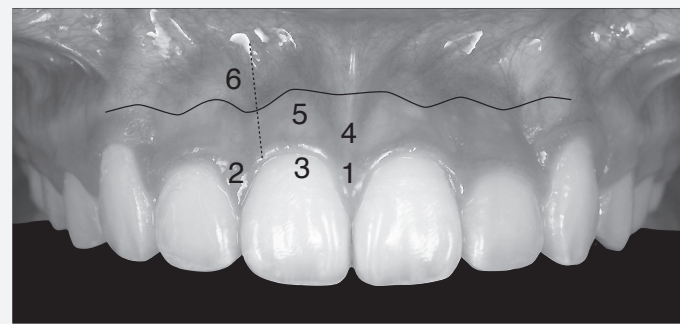
INSTRUCTIONS: Place score beside each deficient tooth and enter total score for each parameter in the white box. Mark extracted teeth with "X". Second molars should be in occlusion.

IBOI Pink & White Esthetic Score

Total Score: =

4

1. Pink Esthetic Score



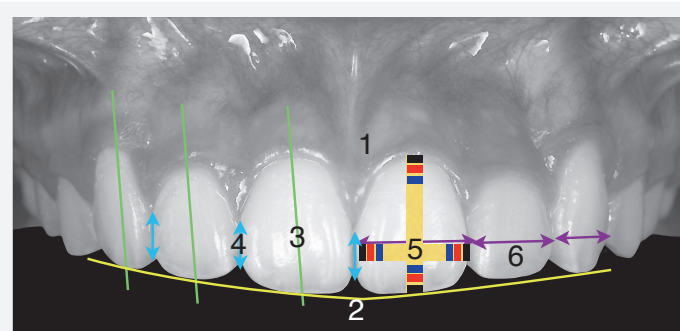
1. M & D Papillae	0	1	2
2. Keratinized Gingiva	0	1	2
3. Curvature of Gingival Margin	0	1	2
4. Level of Gingival Margin	0	1	2
5. Root Convexity (Torque)	0	1	2
6. Scar Formation	0	1	2

Total =

2

1. M & D Papilla	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

2. White Esthetic Score (for Micro-esthetics)



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 (1:0.8)	0	1	2
6. Tooth to Tooth Proportion	0	1	2

Total =

2

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 (1:0.8)	0	1	2
6. Tooth to Tooth Proportion	0	1	2