SOFTSMILE CASES

VISION by SoftSmile

BEFORE AND AFTER

Digital Correction of a Class III Tendency and Canine Ectopia Using SoftSmile Vision

OPEN CASE ↗

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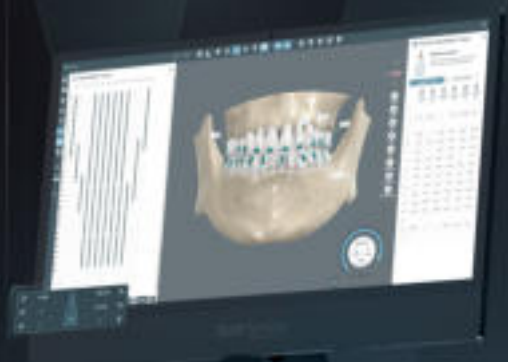
BEFORE AND AFTER

Correction of an Asymmetric Class II/Class III Malocclusion Using SoftSmile Vision



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BEFORE AND AFTER

Microesthetics Class I correction using Vision by SoftSmile – Dr. Luca Galli

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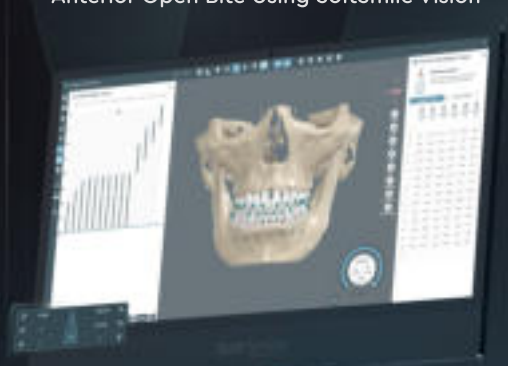
BEFORE AND AFTER

Correction of a Bilateral Class III Malocclusion and Anterior Open Bite Using SoftSmile Vision



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BEFORE AND AFTER

Correction of a Class I Malocclusion with Moderate Crowding Using SoftSmile Vision

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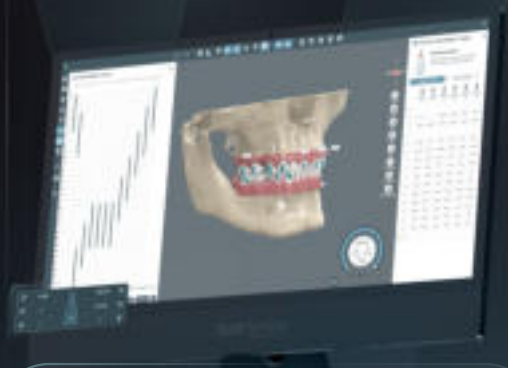
BEFORE AND AFTER

Correction of a Class II Malocclusion and Anterior Crowding Using SoftSmile Vision



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BEFORE AND AFTER

Digital Correction of a Class III Tendency and Canine Ectopia Using SoftSmile Vision

SoftSmile case

ABOUT THE CASE

This case demonstrates the digital correction of a compensated Class III malocclusion with anterior edge-to-edge bite and lower midline deviation.

Treatment involved selective extractions combined with sequential distalization of both arches and controlled repositioning of the upper right canine (1.3).

Using SoftSmile Vision's, the clinician will achieve functional occlusion, root parallelism, and esthetic balance with a fully digital workflow.

PATIENT DATA

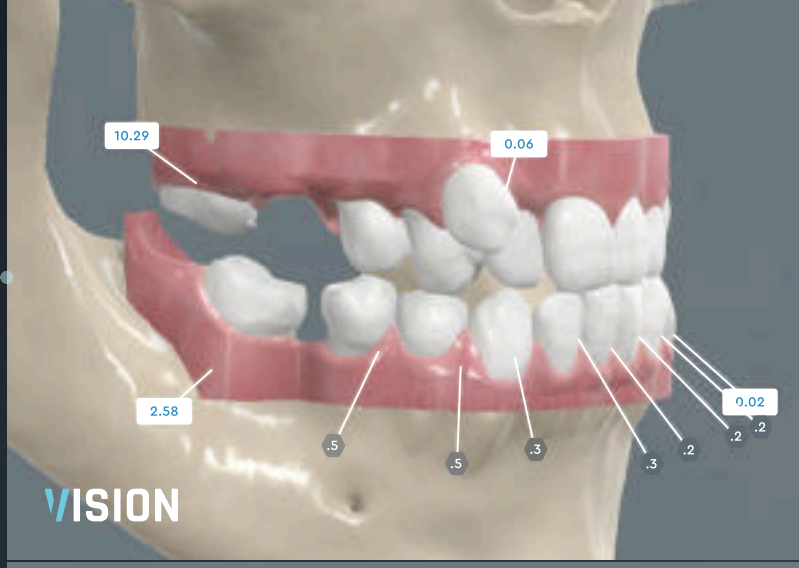
Age:	36
Gender:	Female
Patient initials:	Z.J.
Treatment time:	16 months
Number of aligners:	25 L / 35 U

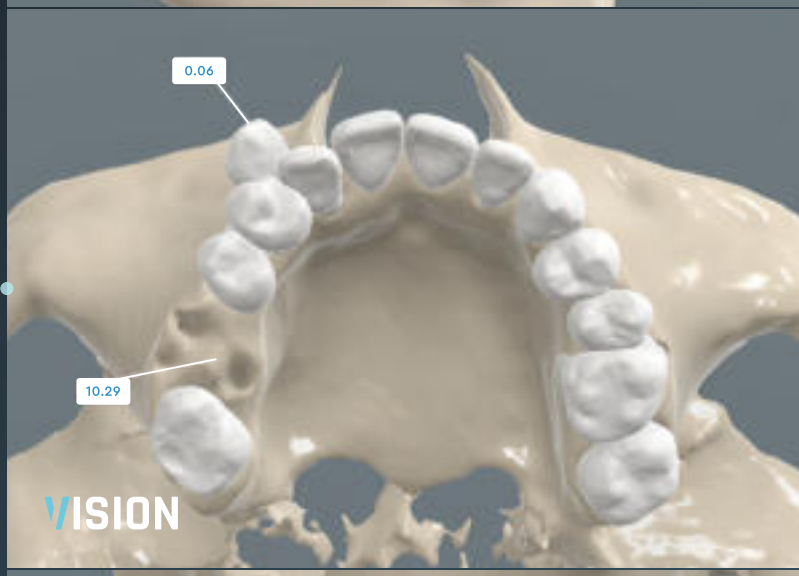
CHIEF COMPLAINT:

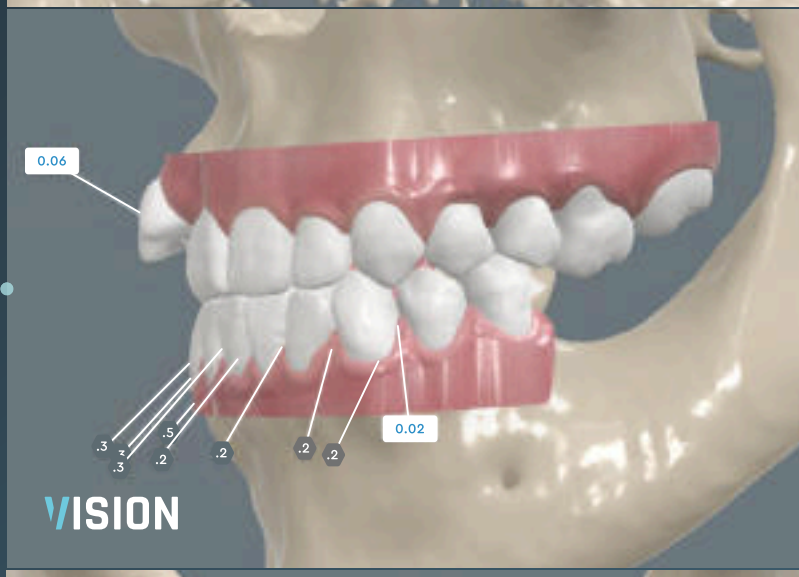
The patient, a 36-year-old woman, presented with esthetic concerns due to an anterior edge-to-edge bite, visible asymmetry in the upper arch caused by the buccal displacement of tooth 1.3, and mild lower crowding.She also reported difficulty achieving comfortable occlusion during chewing and was seeking comprehensive orthodontic correction with a digital and minimally invasive approach.

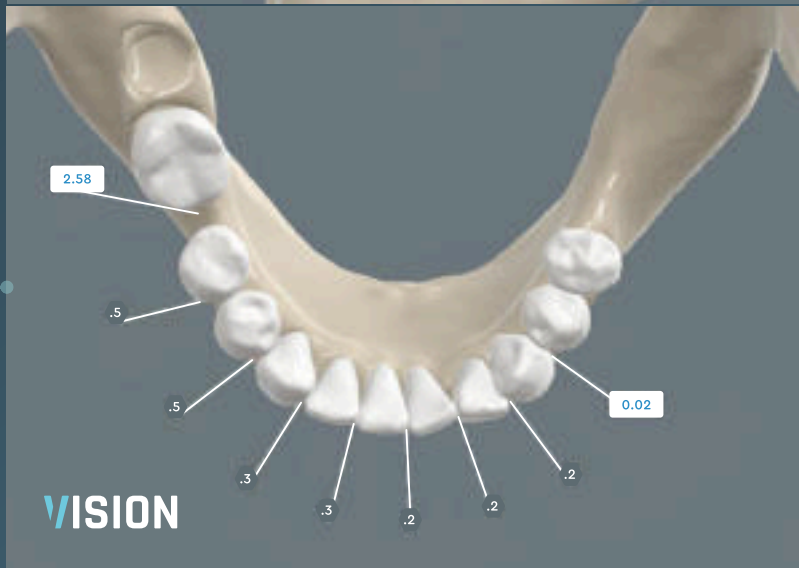
CLINICAL EXAMINATION AND DIAGNOSIS

- Dental Class III relationship with anterior edge-to-edge bite.
- Mild crowding in the lower arch. Severe crowding in the upper arch.
- Lower midline deviation of approximately 1.5 mm to the left (lower).
- Buccal displacement and mesial inclination of the upper right canine (1.3).
- Premolars in quadrants 1 and 4 requiring distal movement for sagittal correction.
- Mild curve of Spee in the lower arch.
- Soft-tissue analysis: Harmonious facial balance with slightly protrusive lower lip and flat profile.







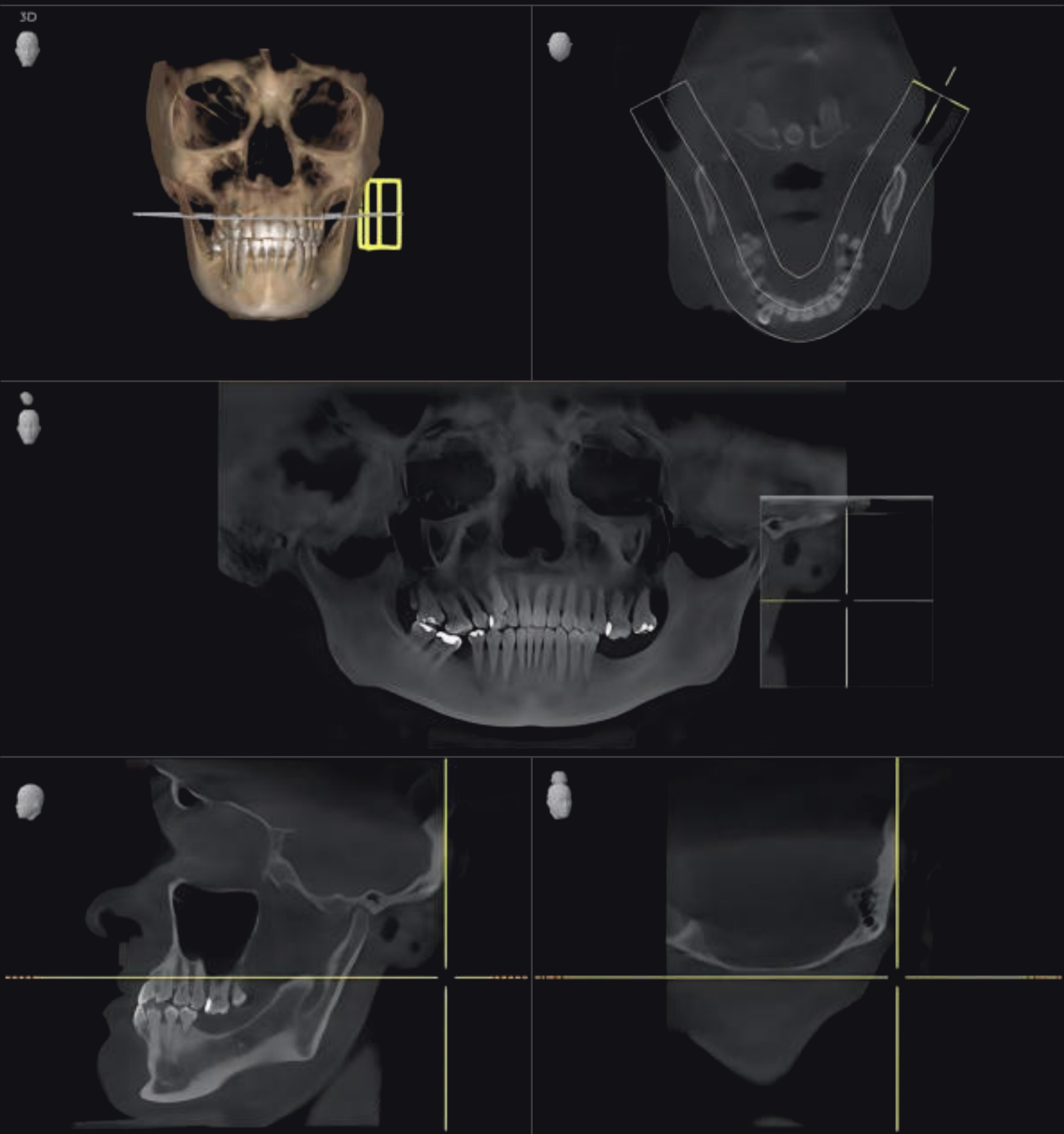


CBCT FINDINGS:

Confirmed root morphology and available space for distalization.

FUNCTIONAL EVALUATION:

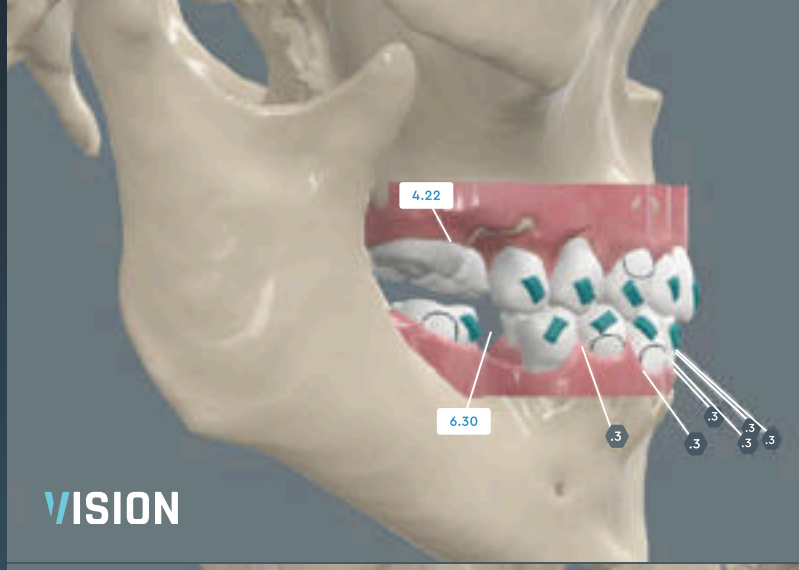
No temporomandibular or airway dysfunction detected.

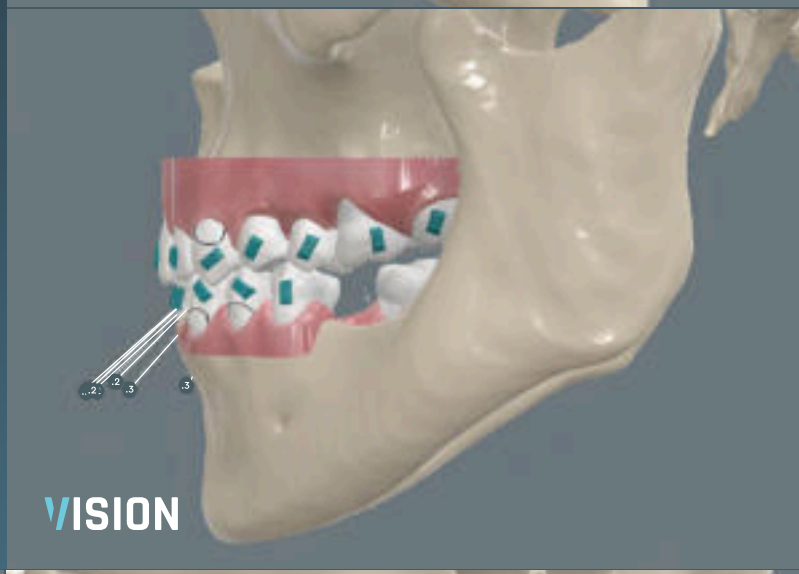


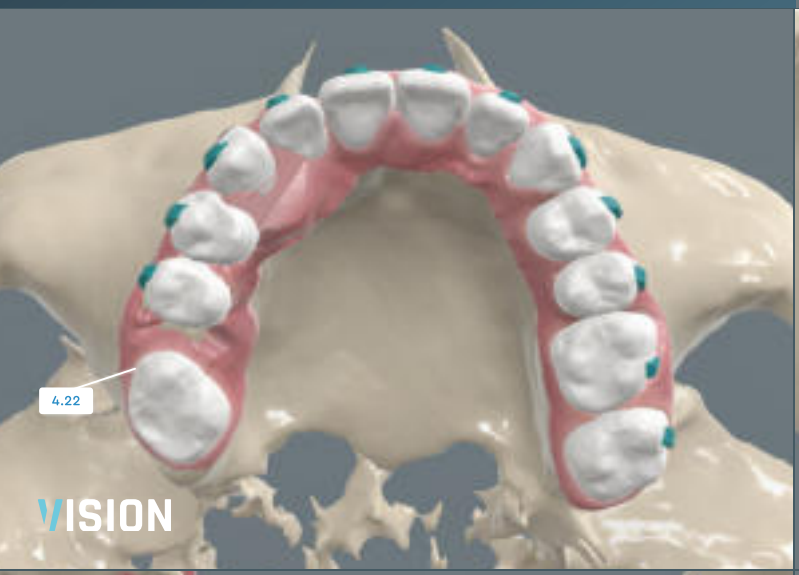
TREATMENT PLAN AND SETUP

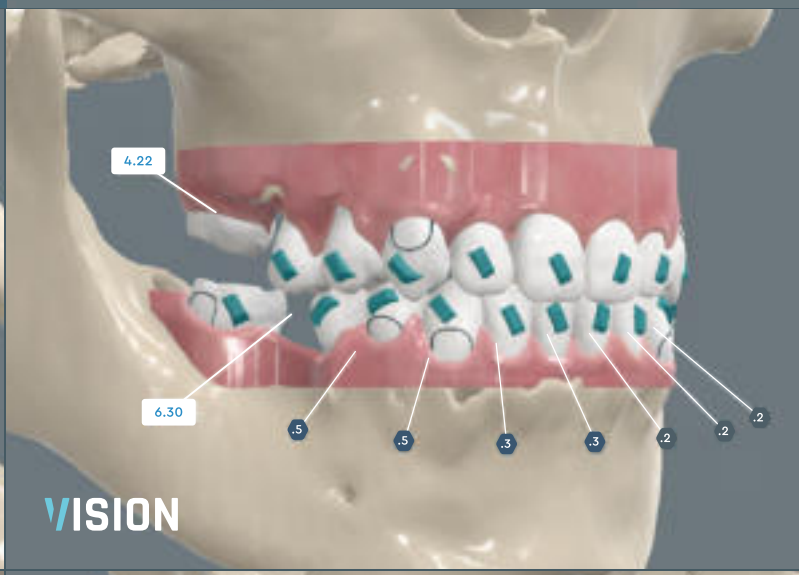
The treatment strategy focused on achieving a functional Class I occlusion through controlled distalization, extractions, and precise tooth alignment.

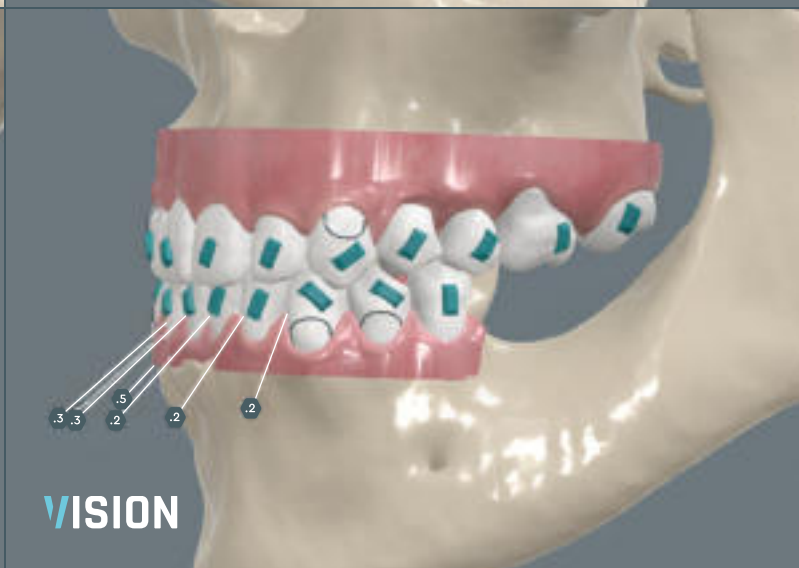
Key objectives included sagittal correction, upper canine repositioning, and improvement of arch symmetry.











TREATMENT PLAN STAGES

Extraction performed on 1.6 and 4.7 to create space for alignment and improve arch coordination.

Repositioning of tooth 1.3, correcting its buccal and mesial displacement through controlled 3D movements and optimized attachments for torque and root control. Direct elastics on the canine and premolars on this step are essential.

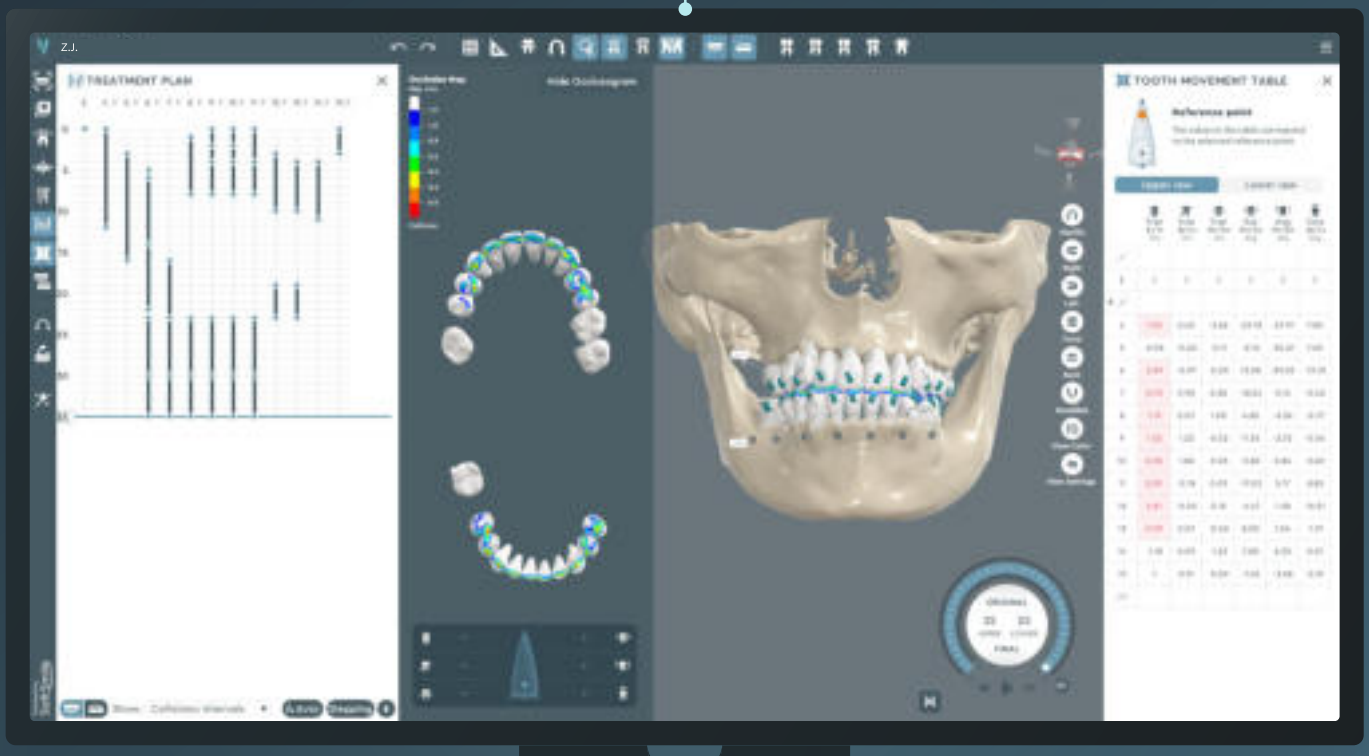
Midline correction achieved through asymmetric distalization and space redistribution.

Sequential distalization of molars and premolars in quadrants 1 and 4, with a total distal movement of approximately 3 mm.

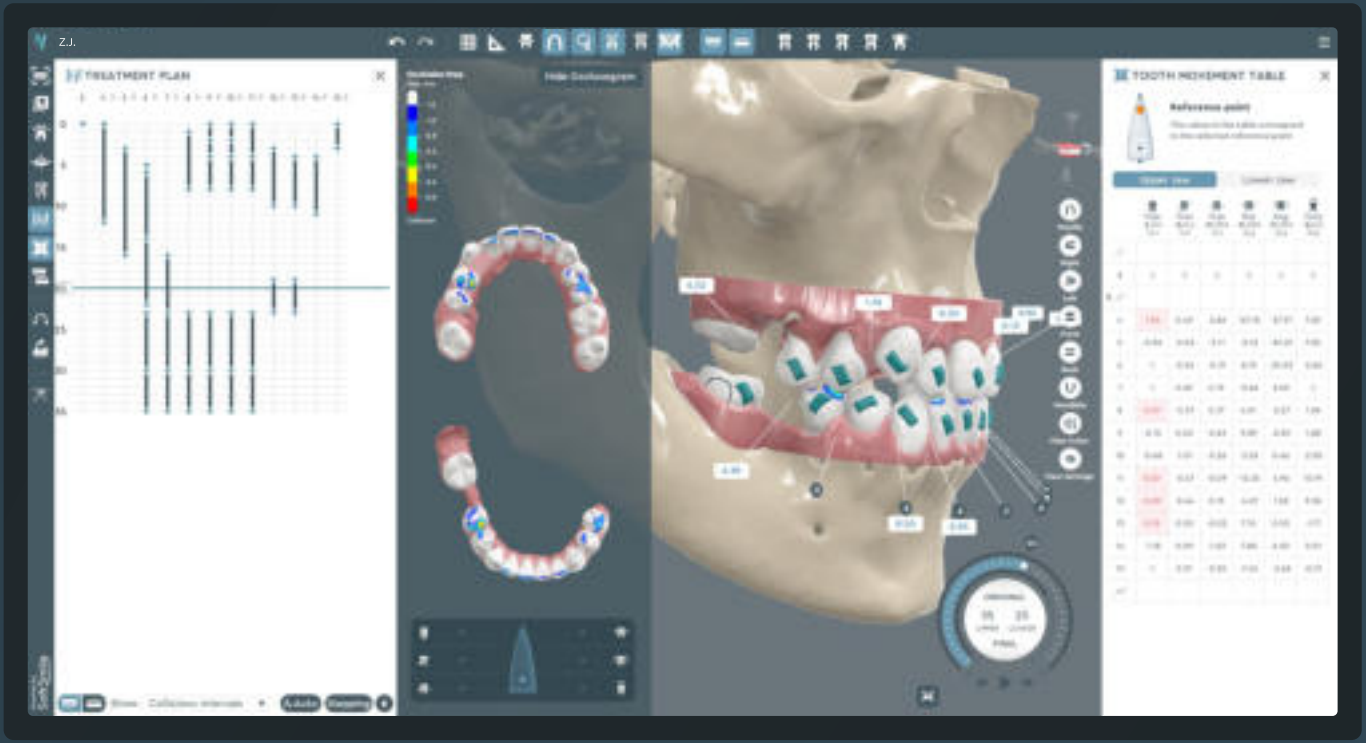
Interproximal reduction (IPR) between canines and premolars to refine intercuspation and maintain midline coordination.

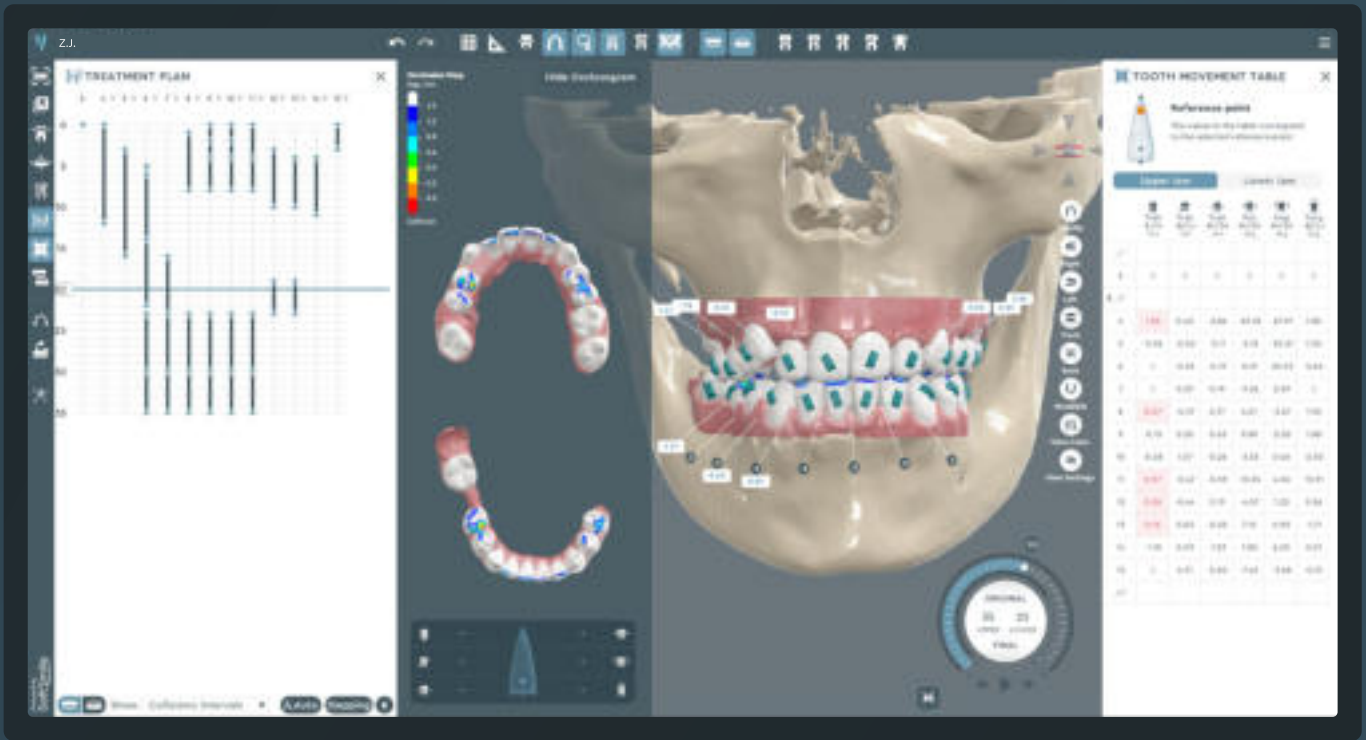
Attachments placed strategically to preserve anchorage and ensure biomechanical precision.

Use of CBCT data for initial root visualization and assessment of distalization safety.



TREATMENT PROGRESS





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TREATMENT SUMMARY

Parameter	Details
Software:	SoftSmile Vision
Arches treated:	Upper & Lower
Aligners:	35 upper / 25 lower
Total treatment time:	16 months
Distalization amount:	3 mm (lower molars & premolars)
IPR:	Lower anterior teeth
Extractions:	1.6 and 4.7
Attachments:	Torque & anchorage control
CBCT:	Pre-treatment only
Key tooth:	#13 (repositioned and torque-controlled)

VISION

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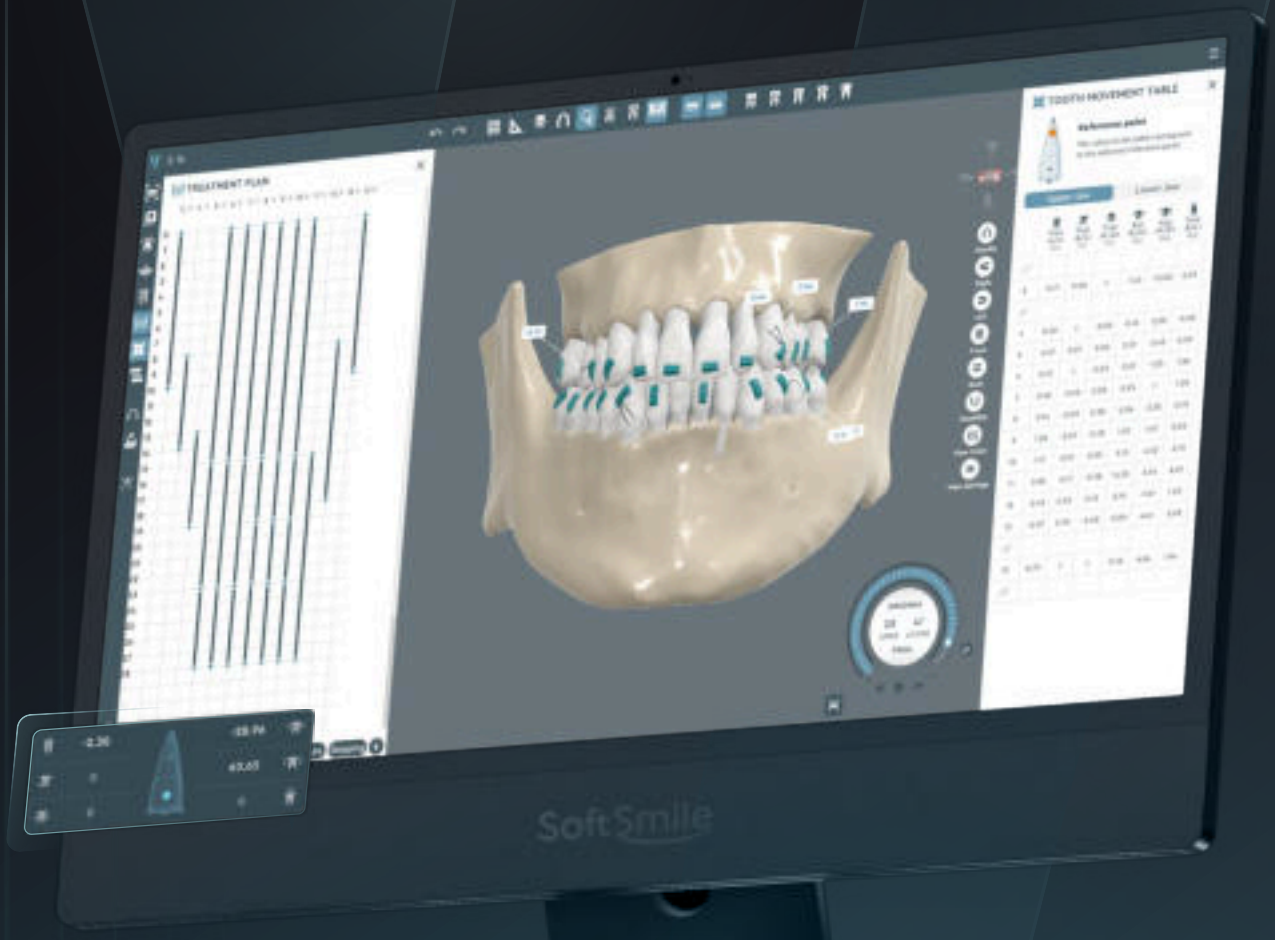
BEFORE AND AFTER

Correction of an Asymmetric Class II/Class III Malocclusion Using SoftSmile Vision



SoftSmile case

ABOUT THE CASE

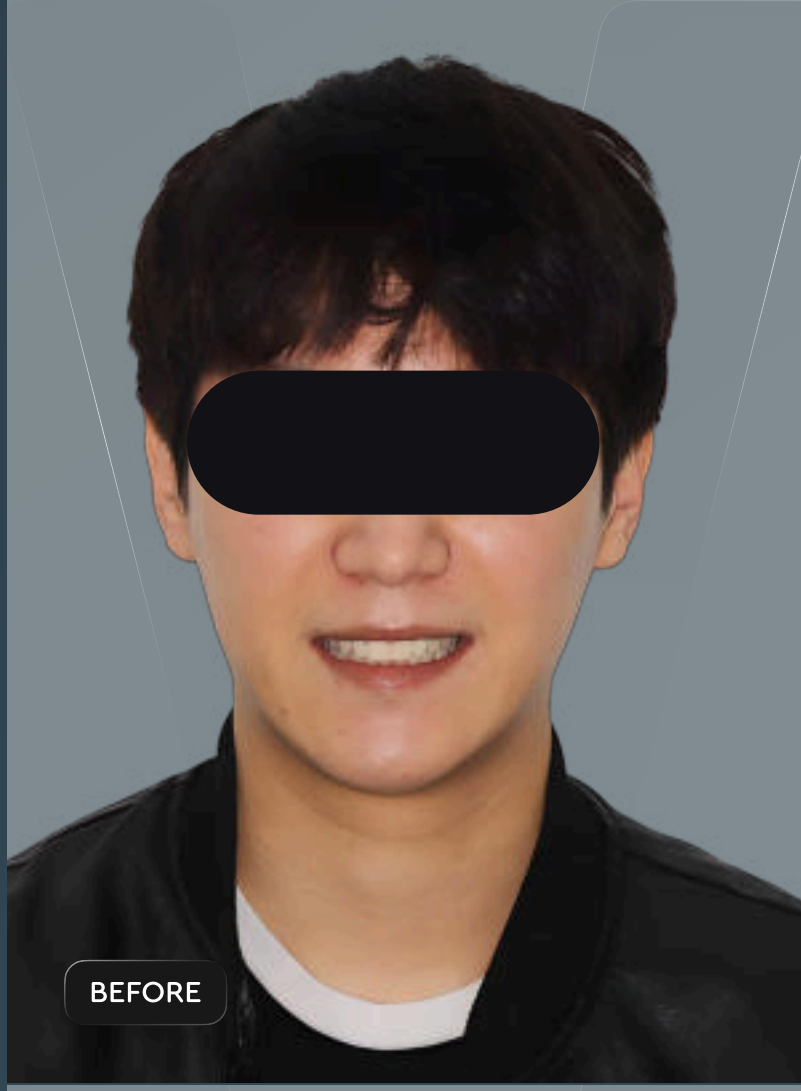
This case demonstrates the digital correction of a complex asymmetric malocclusion, characterized by a Class II relationship on the left side and a Class III tendency on the right. The condition is complicated by multiple edentulous spaces, a dental midline deviation, and an inverted smile line.

Treatment involves a highly asymmetric biomechanical plan, utilizing both Class II and Class III elastics. This approach combines selective mesialization and distalization of the posterior segments to achieve midline correction and ideal molar angulation.

Using SoftSmile Vision, the clinician will coordinate the arches, level the smile line, and establish a functional occlusion and aesthetic balance with a fully digital workflow.

PATIENT DATA

Age:	**25**
Gender:	**Male**
Patient initials:	**E. N.**
Treatment time:	**20 months**
Number of aligners:	**41 L / 28 U**



CHIEF COMPLAINT:

The patient, a 25-year-old male, presented with a chief complaint of aesthetic dissatisfaction. This concern was primarily attributed to a significant dental midline discrepancy, which was characterized by an adverse lateral inclination (tip) of the mandibular anterior crowns toward the left. This condition was further complicated by a non-consonant, inverted smile arc (reverse smile line).

Clinical examination confirmed a complex and highly asymmetric malocclusion. Sagittally, this presented as a unilateral Class II relationship on the left quadrant, transitioning to a Class III tendency on the right quadrant. The occlusal presentation was also impacted by the presence of multiple edentulous spaces throughout the dentition.

CLINICAL EXAMINATION AND DIAGNOSIS

Facial Phenotype: Facial analysis reveals a mesofacial skeletal pattern, complemented by a relatively straight soft-tissue profile.

Canine Class: Intraoral examination confirms an asymmetric malocclusion. The sagittal relationship is Class II on the left quadrant and presents with a Class III tendency on the right quadrant.

Overjet/Overbite & Midline: The occlusal presentation is defined by a significant dental midline deviation. This discrepancy is visibly associated with an adverse lateral inclination (tip) of the anterior crowns toward the left. Vertical and sagittal overlaps (overbite/overjet) are within functional limits.

Crowding/Spacing: Arch analysis of the maxilla reveals minimal crowding, which coexists with the large posterior edentulous areas (1.6, 2.6). The mandibular arch presents anterior crowding, an edentulous site at position 3.4, and a diastema mesial to the canine (3.3).

Missing Teeth: The patient has a history of extraction or agenesis of teeth 1.6 (maxillary right first molar), 2.6 (maxillary left first molar), and 3.4 (mandibular left first premolar).

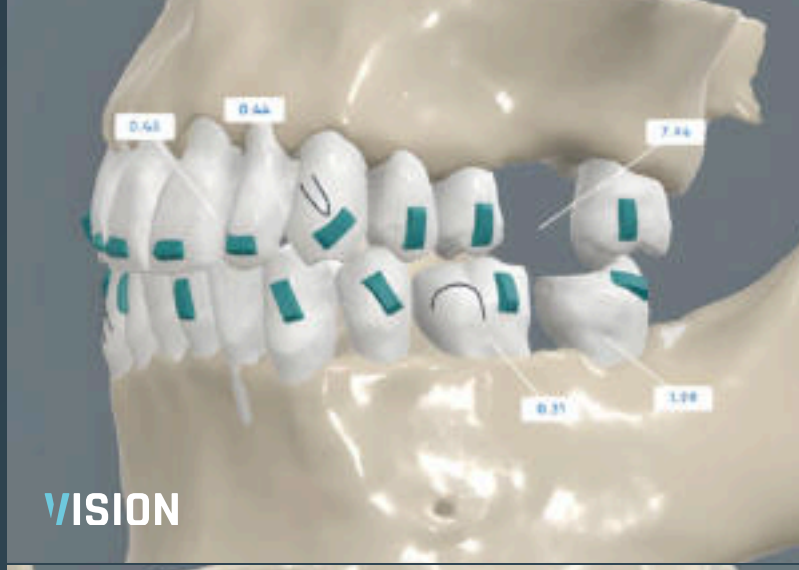
Other: A significant aesthetic concern is the presence of an inverted smile arc (slight reverse smile line).

TREATMENT PLAN

The treatment strategy is designed for a comprehensive and asymmetric occlusal reconstruction. The primary goal is to correct the asymmetric malocclusion (Class II left, Class III right) and the significant dental midline deviation. This sagittal correction will be achieved through a highly coordinated and asymmetric biomechanical approach, utilizing both Class II and Class III elastics.

KEY OBJECTIVES FOR THIS TREATMENT INCLUDE:

- Asymmetric sagittal correction from a Class II (left) and Class III tendency (right) to a stable, functional Class I occlusion.
- Resolution of the dental midline discrepancy by correcting the adverse lateral tipping of the anterior crowns.
- Leveling of the inverted smile arc to establish a consonant and harmonious smile line.
- Correction of posterior molar angulation.
- Systematic management of edentulous spaces (1.6, 2.6, 3.4), including the closure of the diastema mesial to tooth 3.3.
- Preparation of a pre-restorative space adjacent to tooth 2.2 for a future prosthetic restoration.



TREATMENT SETUP

Asymmetric Elastic Use: Application of Class II elastics on the left side and Class III elastics on the right side to facilitate the complex, simultaneous sagittal corrections.

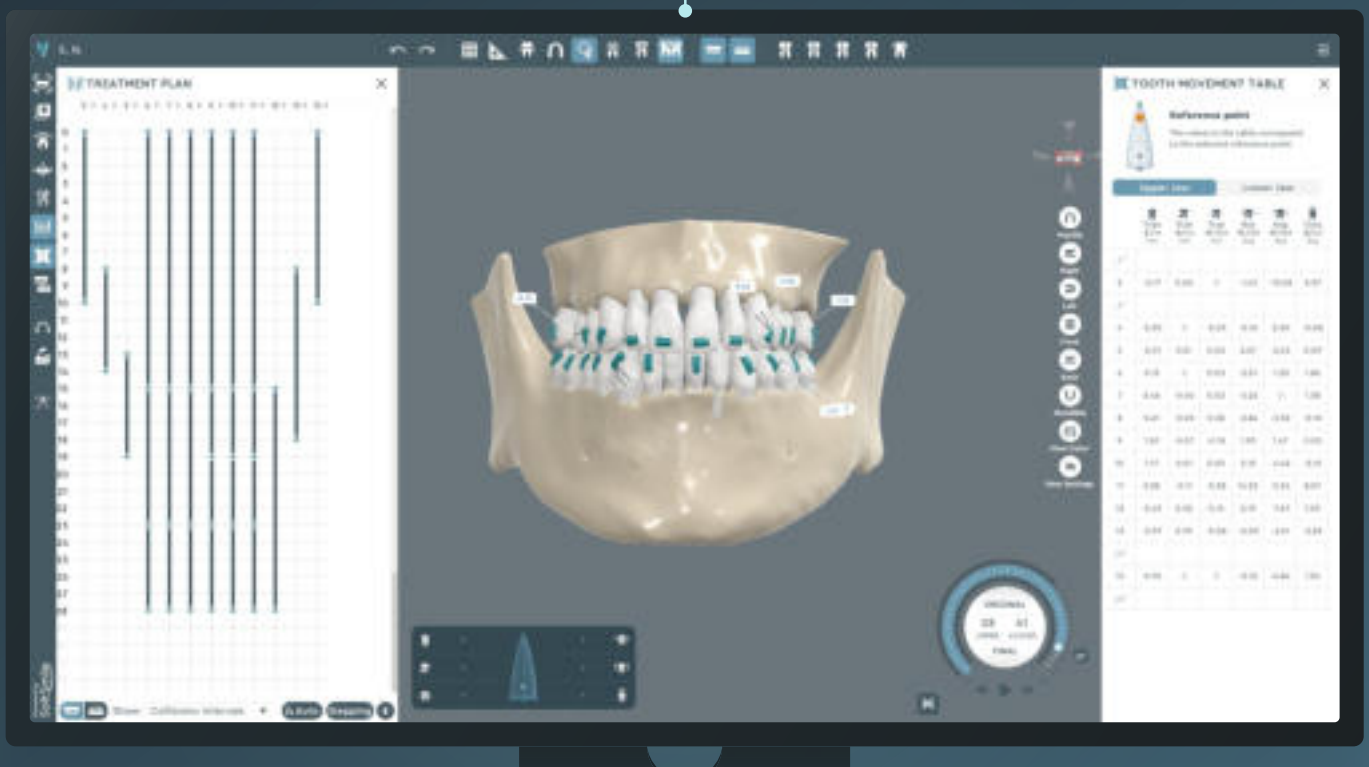
Asymmetric Posterior Segment Movement: Controlled mesialization of the lower-left posterior segment to manage the 3.4 edentulous space, combined with slight distalization of the lower-right posterior segment to correct the Class III tendency.

Strategic placement of optimized attachments to ensure maximum biomechanical control for the complex and opposing movements required, including root tipping, mesialization, and distalization.

Midline and Tip Correction: Controlled tipping of the lower incisors to upright them and align the dental midlines.

Molar Angulation Correction: Precise root and crown movement to correct the angulation of molars, establishing proper occlusion.

Integration of CBCT data directly into the SoftSmile Vision software, providing precise visualization of root and bone anatomy to ensure all planned movements are biologically safe and predictable.



TREATMENT SUMMARY

Parameter	Details
Software:	SoftSmile Vision
Arches treated:	Upper & Lower
Aligners:	28 upper / 41 lower
Total treatment time:	20 months
Key Movements:	Asymmetric sagittal correction; Midline correction; Lower-left mesialization; Lower-right distalization; Leveling smile arc.
IPR:	None planned. (Space management achieved via mesialization/distalization).
Extractions:	None planned. (Plan manages pre-existing edentulous spaces at 1.6, 2.6, and 3.4).
Attachments:	Optimized attachments placed for anchorage, torque, and root control.
CBCT:	Pre-treatment data integrated for root and bone visualization.
Elastics:	Asymmetric elastics: Class II (left side) and Class III (right side) for sagittal correction.

VISION

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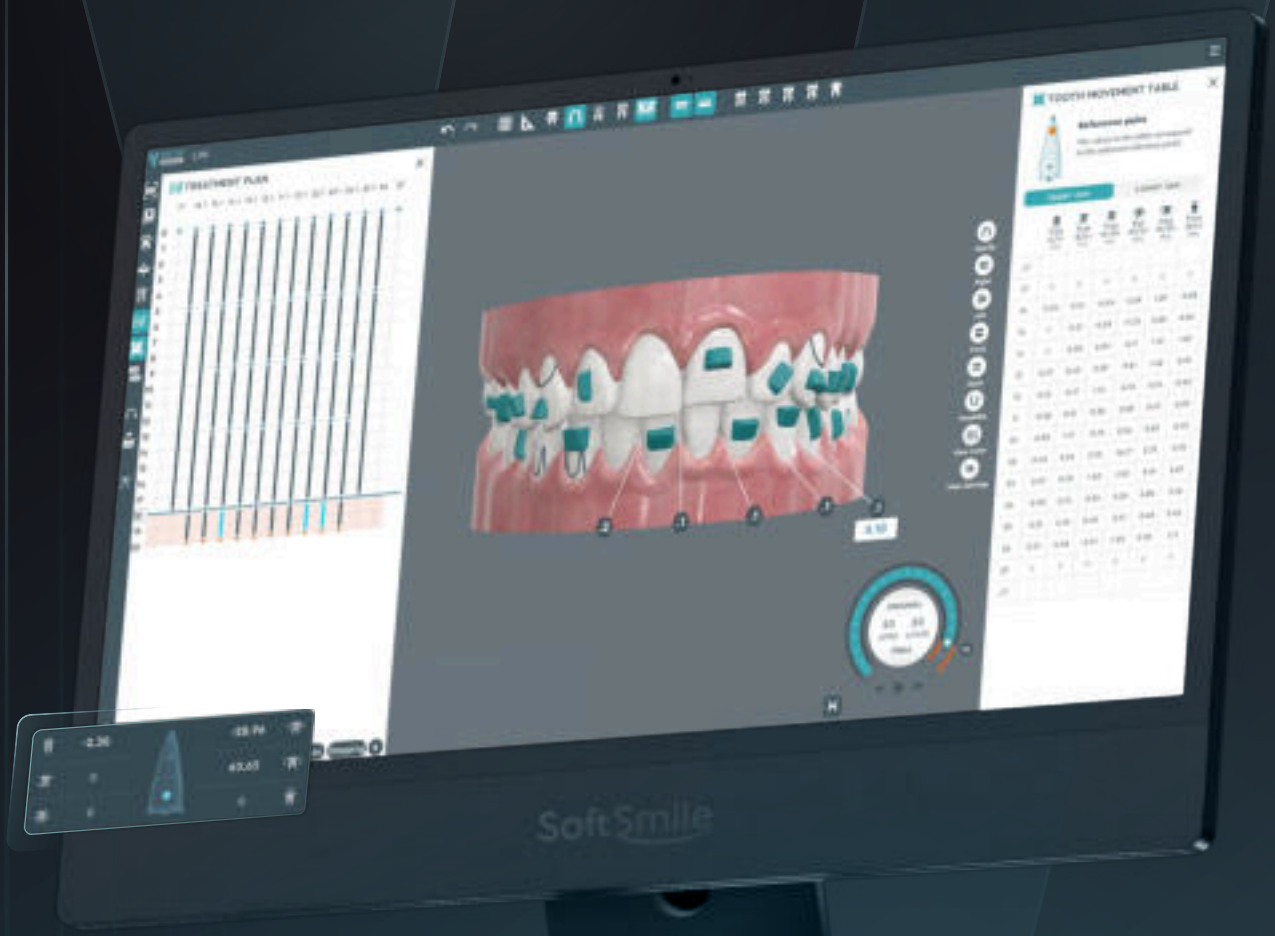
BEFORE AND AFTER

Microesthetics Class I correction using Vision by SoftSmile – Dr. Luca Galli



SoftSmile Case

ABOUT THE CASE

This case presents a Class I orthodontic correction planned and executed with a strong emphasis on microesthetic control, rather than a limited refinement. Although the occlusion was relatively stable and the right side showed acceptable alignment at baseline, the treatment focused on optimizing smile harmony through precise control of anterior tooth position, arch form, and occlusal detailing. From the initial Digital Smile Design (DSD), the primary goal was defined as aligning the smile, with particular attention to the vertical and bucco-lingual positioning of the maxillary incisors. Tooth 21 played a central role in the aesthetic planning, where controlled intrusion was performed to improve the smile line, anticipating a restorative phase with a composite veneer to match the final crown length to tooth 11. The case combines subtle anterior movements with targeted auxiliary mechanics on the left side to improve alignment and intercuspation, demonstrating how Vision can be used to manage microesthetic objectives while maintaining biomechanical predictability in a full Class I orthodontic treatment.

Age:	**34**
Gender:	**Female**
Patient initials:	**L. W.**
Treatment time:	**10 months**
Number of aligners:	**20 L / 20 U**

CHIEF COMPLAINT:

The patient's chief complaint was related to the lack of harmony in her smile, particularly in the anterior region. She expressed dissatisfaction with the alignment and vertical positioning of the maxillary incisors, noting that her smile did not appear balanced despite having no major functional complaints.

The patient specifically requested an improvement in smile symmetry and tooth display, aiming for a more aligned and refined aesthetic outcome. From her perspective, the goal of treatment was not a dramatic orthodontic correction, but rather a precise adjustment of tooth position to enhance smile esthetics and achieve a more uniform and pleasing appearance.

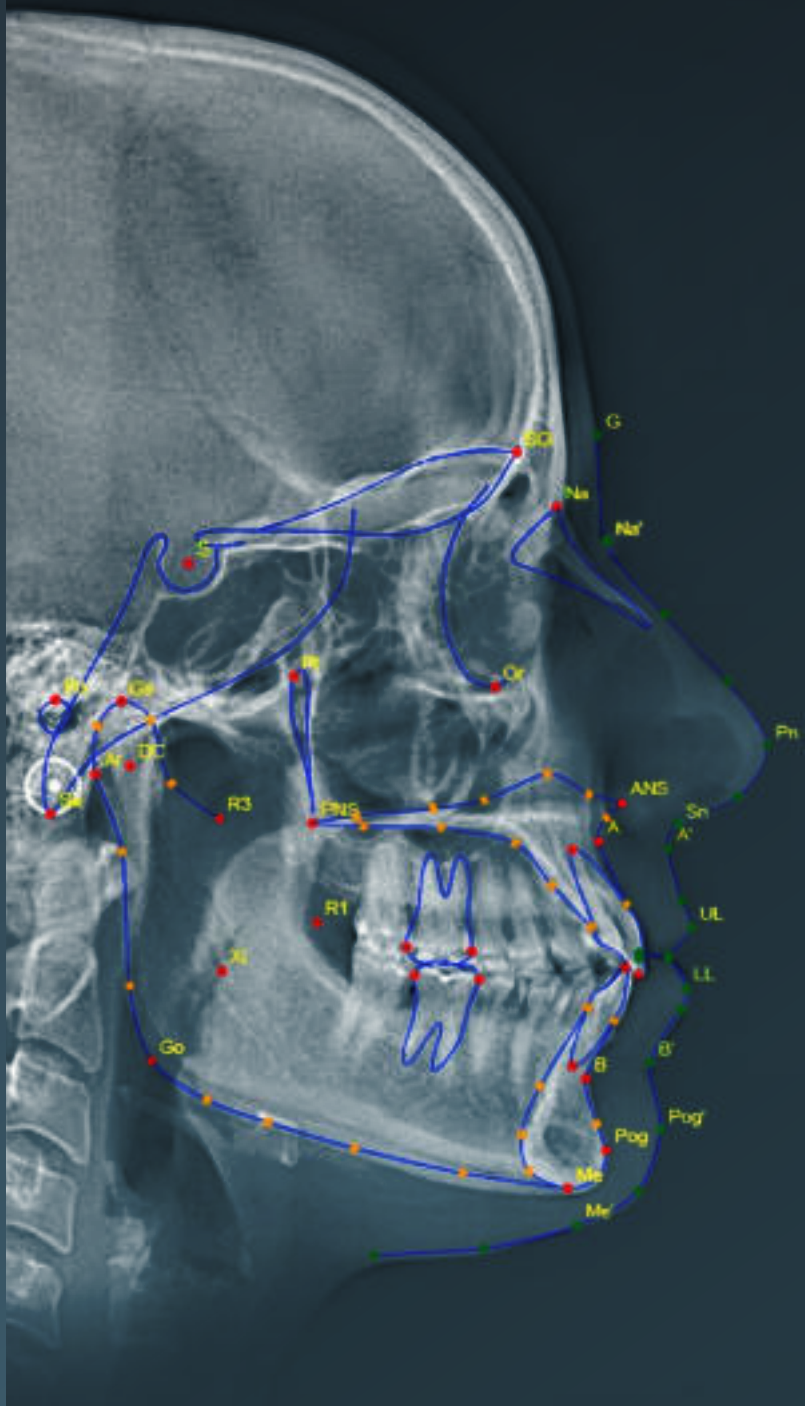
CLINICAL EXAMINATION AND DIAGNOSIS

Facial phenotype / profile
he patient presents a mesofacial phenotype with a generally harmonious facial profile on clinical examination. No relevant facial asymmetries are observed. Lip competence is adequate at rest, and the soft-tissue balance is favorable for aligner-based treatment. From an aesthetic standpoint, the smile line and incisal display were key elements considered during diagnosis, as the treatment objectives were strongly driven by micro-aesthetic demands rather than major skeletal correction.

Cephalometric analysis (Steiner):
Cephalometric evaluation shows a skeletal Class I pattern (ANB 4.2°), with bimaxillary protrusion relative to Steiner norms (SNA 88.5°, SNB 84.3°). Maxillary incisors are positioned close to normative values in both angular and linear measurements (U1–NA 20.8°, 4.4 mm). Mandibular incisors show a tendency toward proclination (L1–NB 30.9°, 8.3 mm), reflected in a mildly reduced interincisal angle (124.1°). Overall, the cephalometric findings are consistent with a Class I orthodontic case suitable for dentoalveolar correction using clear aligners.

Vertical analysis. C Vertically, the patient exhibits a low to average mandibular plane angle (SN–GoGn 23.3°), with no significant vertical skeletal discrepancy. Vertical control was nevertheless considered during treatment planning, particularly in the final stages, to ensure occlusal stability and avoid posterior open bite development during finishing.

Anterior aesthetics (spacing)
Anterior dental aesthetics represented the main focus of the treatment. Micro-irregularities in incisor position were evident, particularly in the maxillary anterior segment. Special attention was given to vertical positioning and labiolingual inclination of the maxillary incisors, especially tooth 21, which was intruded to improve smile line harmony. A restorative plan involving a composite veneer on tooth 21 was defined from the beginning to achieve optimal symmetry and respect the Digital Smile Design (DSD) established at the diagnostic stage.

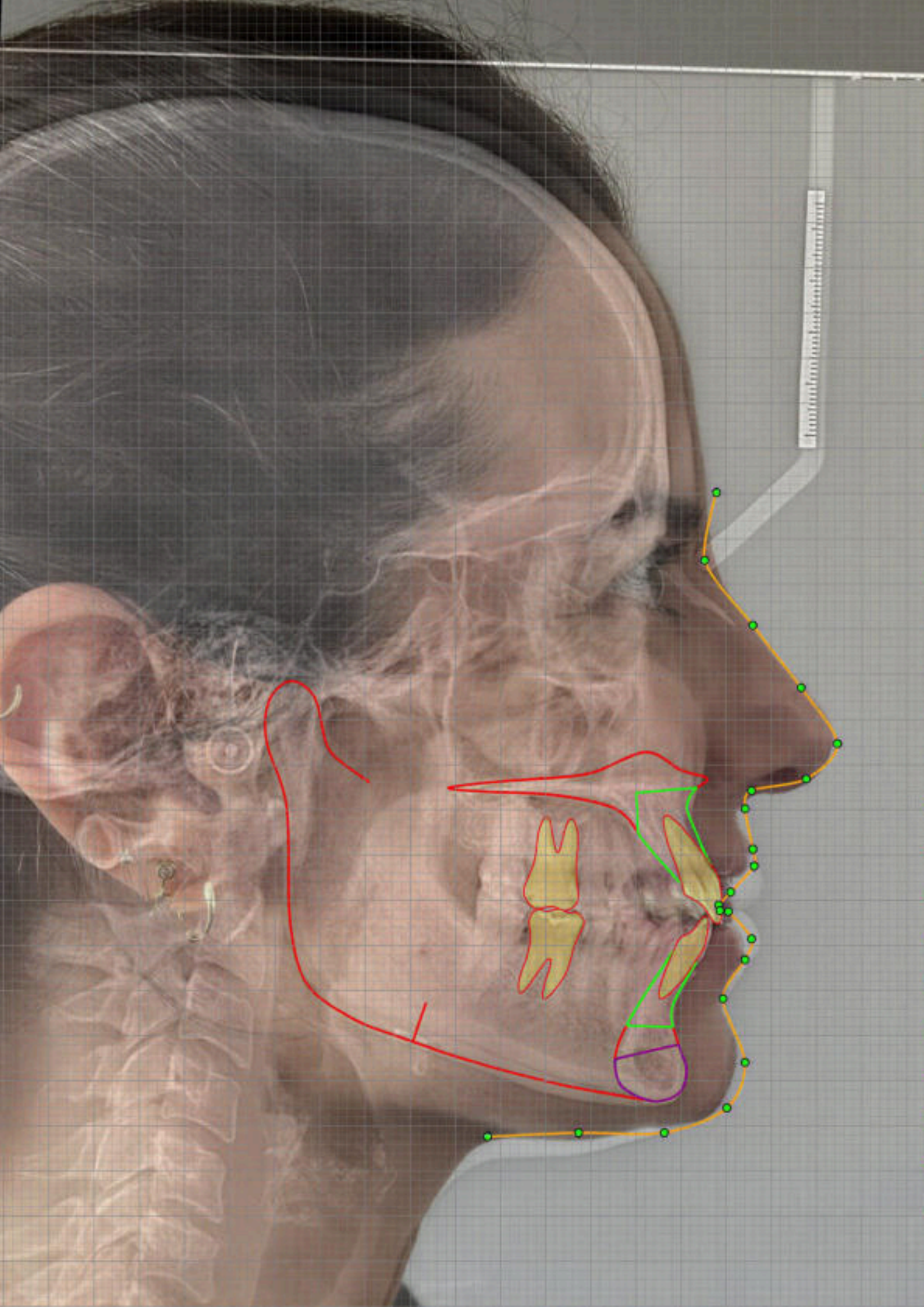


Sagittal relationship (dental)
Dentally, the patient presents a bilateral Class I relationship. The right side shows good intercuspation and alignment, while the left side displays mild discrepancies in alignment and occlusal engagement. These asymmetries were addressed through a combination of aligner biomechanics and auxiliary mechanics.

Transverse / arch coordination
No transverse discrepancy is observed. Both arches present acceptable symmetry; however, arch form refinement was indicated, particularly in the anterior segments, to improve coordination and aesthetic continuity. Improvements in arch shape and incisor alignment were a key part of the treatment objectives.

Functional considerations (parafunction)
No major functional complaints were reported. As part of the finishing strategy, bite ramps were incorporated in the last stages of treatment to assist vertical control and ensure stable occlusal settling.

Steiner measurement	Patient value	Norm
SNA (°)	88.5	81.08 ± 3.7
SNB (°)	84.3	79.17 ± 3.8
ANB (°)	4.2	2.46 ± 1.8
Occlusal plane to SN (°)	10.6	14.0 ± 4.0
Mandibular plane angle (Go-Gn to SN) (°)	23.3	32.0 ± 4.0
U1 to NA (mm)	4.4	4.0 ± 3.0
U1 to NA (°)	**20.8**	22.0 ± 5.0
L1 to NB (mm)	8.3	4.0 ± 2.0
L1 to NB (°)	30.9	25.0 ± 5.0
Interincisal angle (°)	124.1	130.0 ± 5.8



TREATMENT PLAN

The treatment was planned as a **Class I orthodontic correction focused on micro-aesthetic refinement.** The main objective, as expressed by the patient, was to **improve smile harmony,** with particular emphasis on anterior tooth position and incisal display.

From the diagnostic phase, a **Digital Smile Design (DSD)** was performed to define the ideal aesthetic outcome. Orthodontic movements were therefore planned to support the DSD, especially regarding maxillary incisor position, gingival margins, and smile line symmetry. A restorative phase was anticipated from the beginning to finalize the aesthetic result.

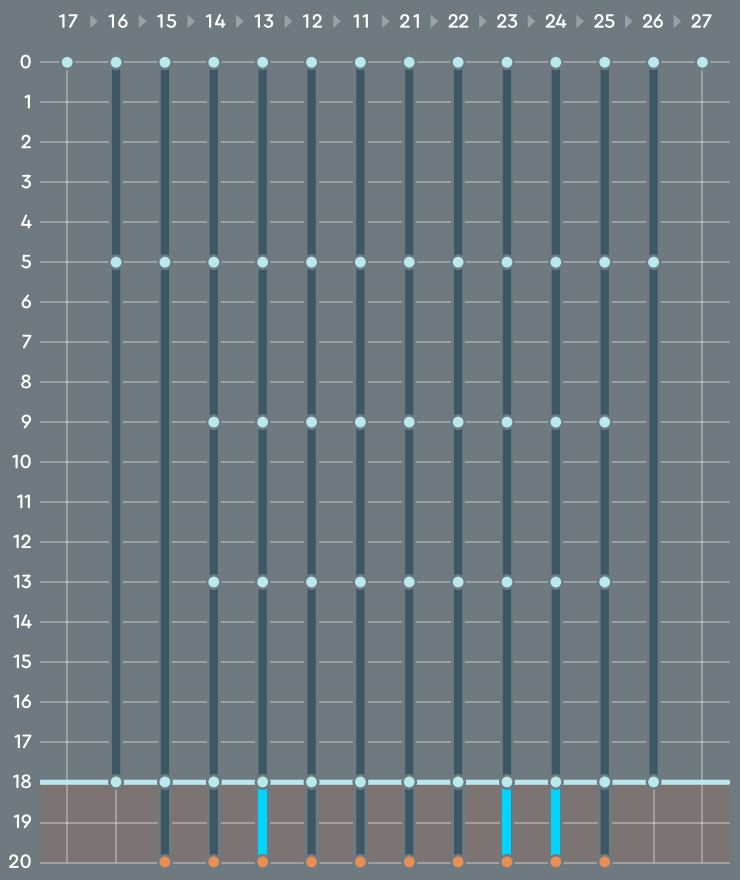
TREATMENT MECHANICS AND STAGING STRATEGY

Treatment was planned for a total of **18 active aligners**, followed by **2 overcorrection aligners** to improve predictability and finishing.

Staging was intentionally segmented to maintain biomechanical control:

- Initial stages focused on **alignment and arch form refinement**, particularly in the anterior segments of both arches.
- In the maxillary arch, special attention was given to **vertical and labiolingual control of the incisors**, with controlled intrusion of tooth 21 and extrusion of 22 to improve smile line symmetry according to the DSD.
- In the mandibular left posterior segment, premolars were first **protruded without rotation**, delaying rotational movements to avoid force interference.

This sequencing allowed movements to be expressed more predictably and reduced unnecessary stress on the aligners.



VISION

VISION

ATTACHMENTS AND AUXILIARY SYSTEMS

Attachments were designed to support controlled movements and aligner tracking, especially in the anterior segments.

For the mandibular left premolars, **simple circular lingual buttons** were bonded. A **continuous lingual power chain** was used between these buttons to generate a rotational couple. Once the desired rotation was achieved, the auxiliary system was removed to allow finishing with aligners alone.

ELASTICS PROTOCOL

Elastics were used selectively to support occlusal stability and sagittal control:

- **Class II elastics on the left side** were used to consolidate the bite and prevent worsening of a very mild Class II tendency during treatment.
- **Class I elastics on the right side**, with lower slits and an upper hook, were used to maintain sagittal stability and support intercuspation.

This asymmetric elastic strategy allowed precise control without altering the overall Class I relationship.

VERTICAL CONTROL

Vertical control was addressed mainly in the finishing phase. **Bite ramps** were incorporated only in the final aligners to assist in occlusal settling and to prevent posterior open bite development.

This approach allowed vertical corrections without compromising aligner fit or tracking during earlier stages.

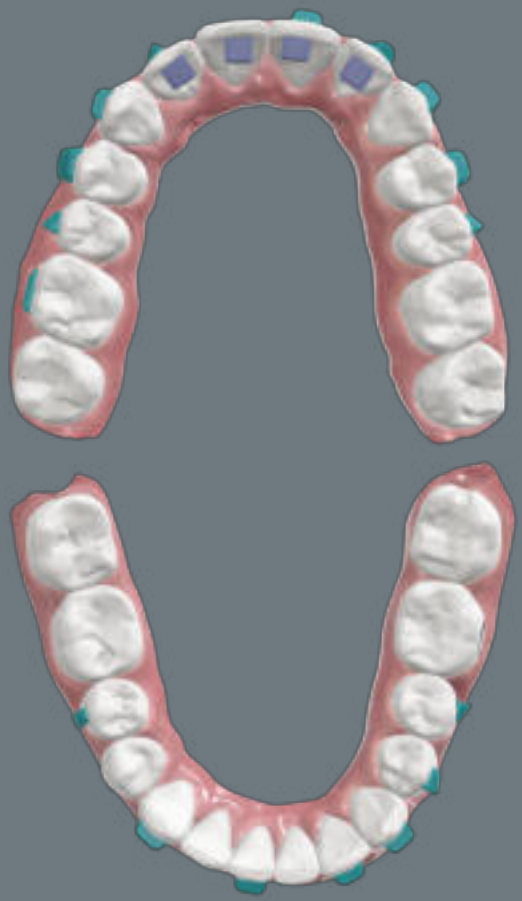
SPACE MANAGEMENT

A **minimal amount of lower anterior IPR** was performed to improve overjet relationships and facilitate alignment. Space management was conservative and fully aligned with the patient's aesthetic goals.

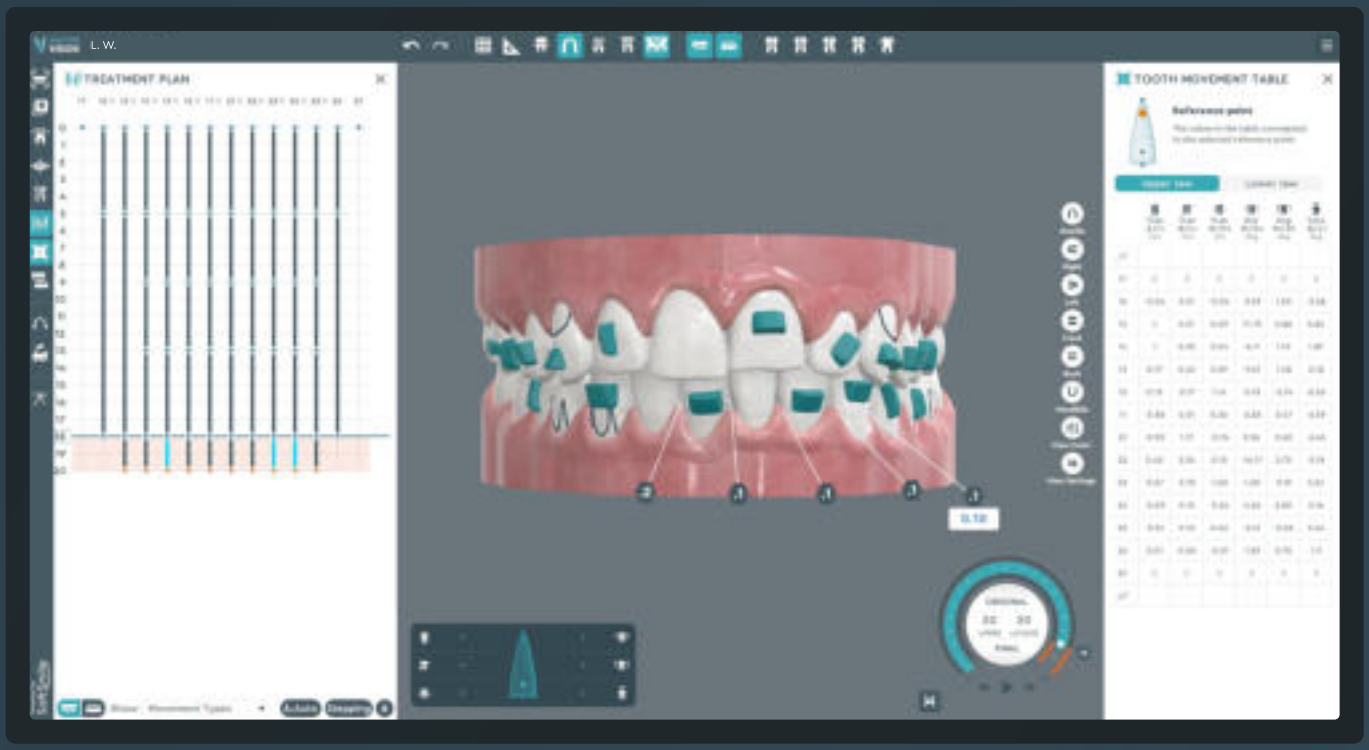
RESTORATIVE CONSIDERATIONS

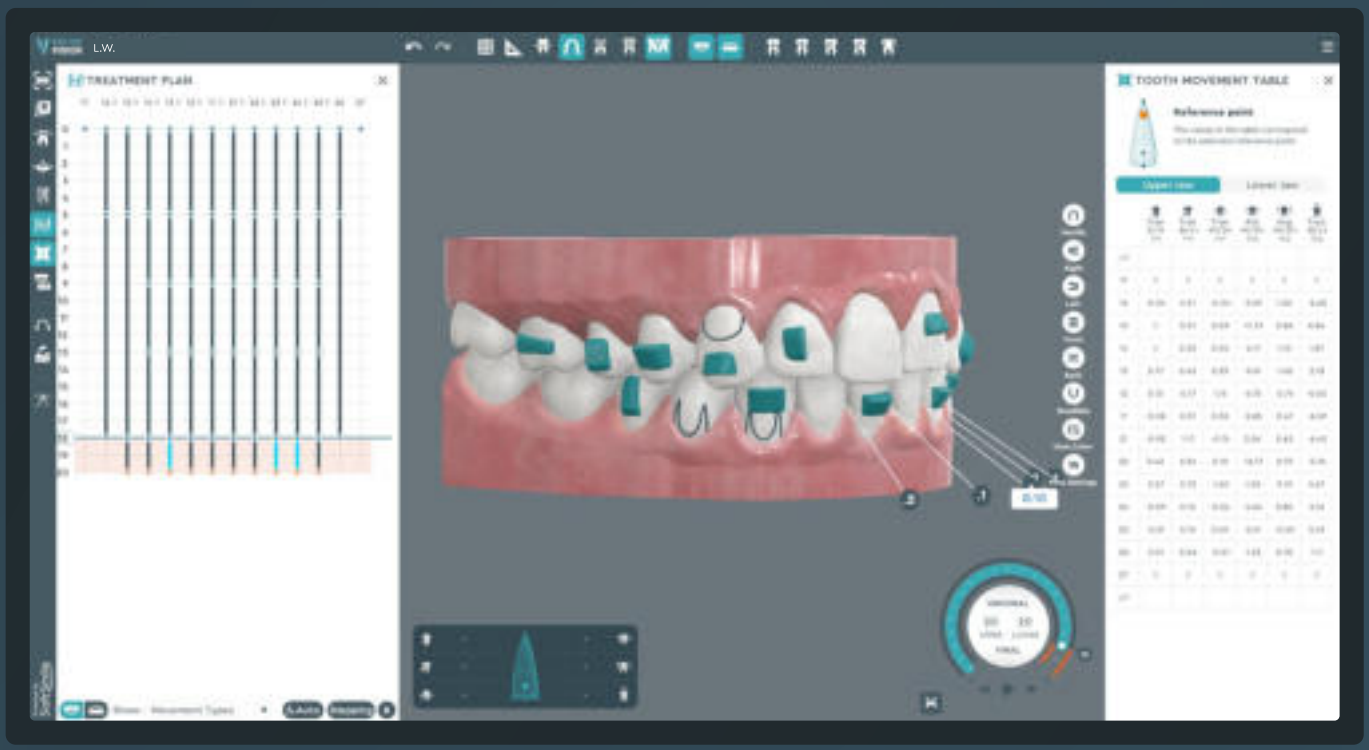
The orthodontic plan was developed in coordination with the restorative strategy from the beginning. After orthodontic treatment, **a composite veneer on tooth 21** and **gingivoplasty on 22** were planned to harmonize incisal length with tooth 11 and fully respect the initial DSD.

Orthodontic movements were therefore designed to create an ideal restorative substrate rather than compensate for restorative limitations.



TREATMENT SETUP





TREATMENT SUMMARY

Parameter	Details
Software:	SoftSmile Vision
Arches treated:	Upper & Lower
Aligners:	18 active aligners + 2 overcorrection aligners
Total treatment time:	10 months
Key Movements:	Upper anterior micro-alignment with vertical and labiolingual correction (notably 21 intrusion); arch form refinement; lower anterior alignment with minimal IPR; rotation and coordination of lower left premolars using auxiliaries; occlusal settling and bite refinement
IPR:	Minimal IPR in the lower anterior region to optimize overjet and alignment
Adjunctive therapy:	Planned restorative approach on tooth 21 (composite veneer)
Attachments:	Standard attachments selected according to movement requirements
Bite ramps:	Used only in the final stages of treatment
Elastics:	Class I elastics on the right side; Class II elastics on the left side
Auxiliaries:	Class I elastics on the right side; Class II elastics on the left side

VISION
by SoftSmile

BEFORE AND AFTER

Correction of a Bilateral Class III Malocclusion and Anterior Open Bite Using SoftSmile Vision

SoftSmile case

ABOUT THE CASE

This case demonstrates the digital correction of a bilateral Class III malocclusion, which is particularly pronounced on the right side. The malocclusion is characterized by a significant anterior open bite and a posterior edge-to-edge bite, further complicated by a slight dental midline discrepancy.

Treatment involves a comprehensive biomechanical approach designed to correct the sagittal relationship and close the bite. This is achieved through the sequential distalization of both arches, selective Interproximal Reduction (IPR), and the use of intermaxillary elastics to support the correction.

Using SoftSmile Vision, the clinician will resolve the anterior open bite and posterior crossbite tendency, correct the midline, and establish a functional Class I occlusion in a treatment plan of 40 upper and 40 lower aligners. This fully digital workflow aims to achieve an ideal overbite and a balanced, aesthetic smile.

Age:	26
Gender:	Male
Patient initials:	M. A.
Treatment time:	20 months
Number of aligners:	40 L / 40 U

CHIEF COMPLAINT:

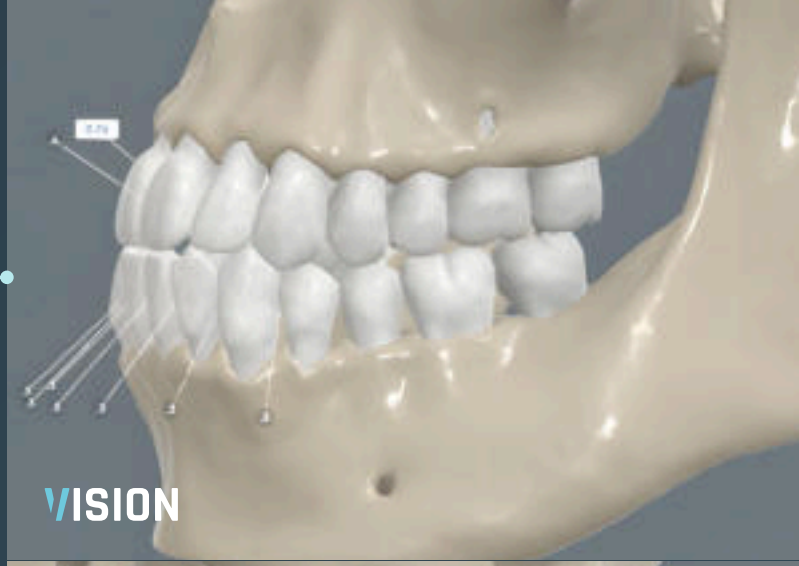
The patient, a 26-year-old man with a mesofacial phenotype and convex profile, presented with concerns regarding an anterior open bite and posterior edge-to-edge occlusion. Clinical examination reveals a bilateral Class III malocclusion and a slight dental midline discrepancy.

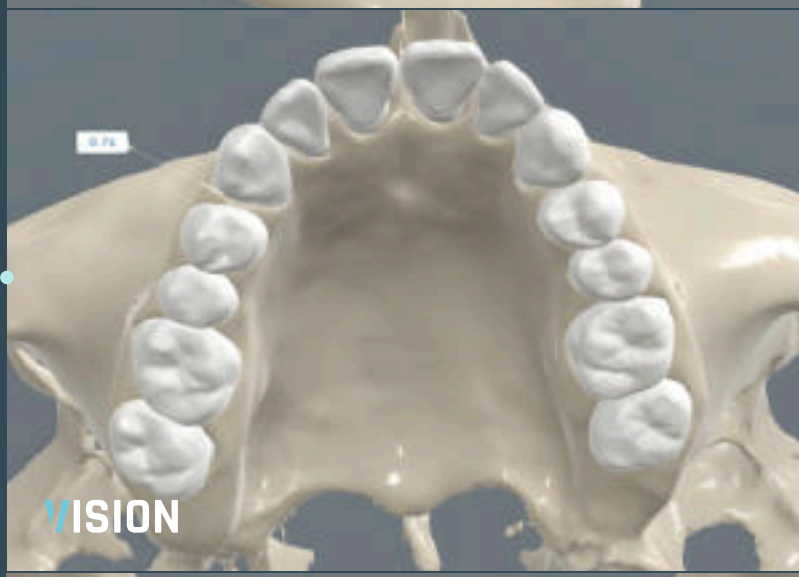
CLINICAL EXAMINATION AND DIAGNOSIS

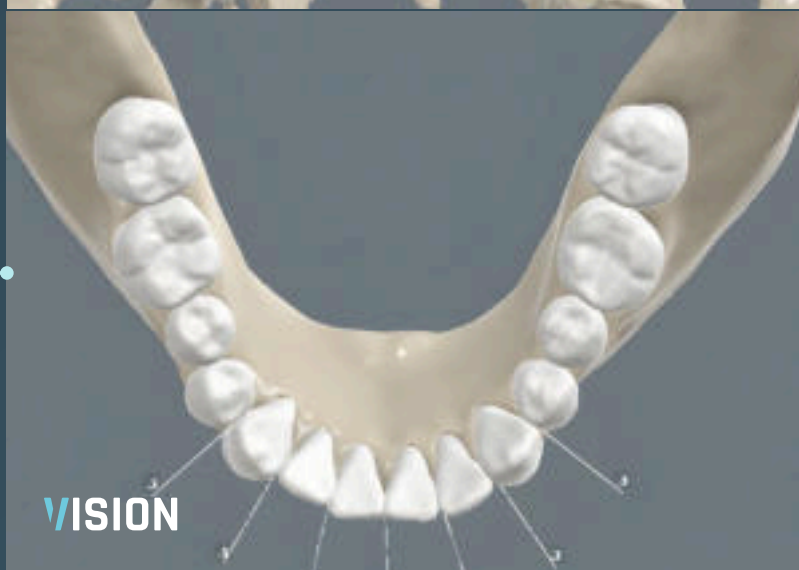
Facial Phenotype: Facial analysis reveals a mesofacial skeletal pattern, characterized by balanced vertical and transverse facial dimensions. This is complemented in the sagittal plane by a convex soft-tissue profile. This convexity is a key diagnostic finding, suggesting the bilateral Class III malocclusion is likely a dentoalveolar compensation rather than a true skeletal prognathism.

Canine/Molar Class: Intraoral examination confirms a bilateral Class III molar and canine relationship. This diagnosis establishes that the malocclusion is sagittal in nature, requiring significant anteroposterior correction to achieve a Class I occlusion.

Overjet/Overbite & Midline: The occlusal presentation is defined by a significant vertical discrepancy, specifically an anterior open bite, where no vertical overlap of the incisors is present. Transversely, the posterior segments occlude in an edge-to-edge relationship. A detailed analysis of the frontal photograph also confirms a slight dental midline discrepancy.







Crowding/Spacing: The case presents a mild-to-moderate arch-length-to-tooth-size discrepancy. This manifests as mild-to-moderate crowding in both the maxillary and mandibular dental arches.

Occlusal Plane & Angulation: The anterior open bite indicates a significant disruption of the occlusal plane in the vertical dimension, requiring intrusion of posterior segments and/or extrusion of anterior segments. The posterior edge-to-edge bite highlights a need for comprehensive transverse arch coordination to establish a stable intercuspation.

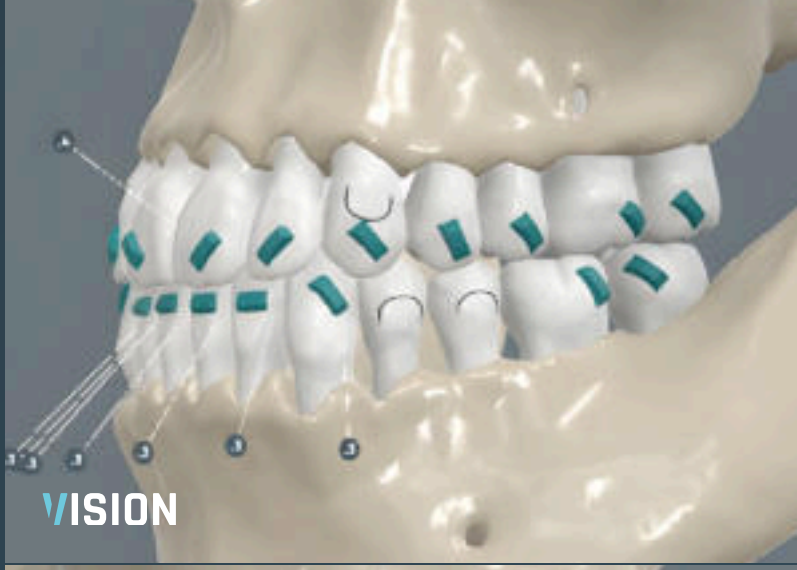
TREATMENT PLAN

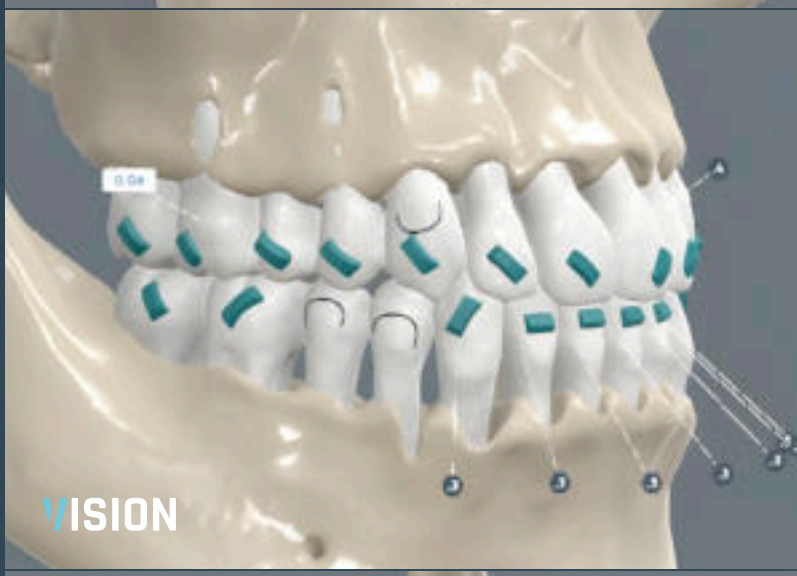
The treatment strategy is designed to correct a complex bilateral Class III malocclusion and a significant anterior open bite. The primary goal is to establish a functional Class I occlusion with a positive overbite, while also correcting the posterior edge-to-edge bite and the slight midline discrepancy.

This will be achieved through a multi-faceted biomechanical approach, including **sequential distalization of both arches** and selective **Interproximal Reduction (IPR)**. The plan requires a **two-phase intermaxillary elastic protocol** to manage both the sagittal and vertical corrections. The entire treatment is planned with 40 upper and 40 lower aligners.

KEY OBJECTIVES FOR THIS TREATMENT INCLUDE:

- Correction of the bilateral Class III sagittal relationship to achieve a stable Class I occlusion.
- Resolution of the anterior open bite and establishment of a functional, positive overbite.
- Correction of the posterior edge-to-edge bite through transverse arch coordination.
- Resolution of the mild-to-moderate crowding in both arches.
- Correction of the dental midline discrepancy.
- Aesthetic closure of the black triangle between the upper central incisors.





TREATMENT SETUP

Sagittal Correction:
A staged protocol of sequential distalization is planned for both the maxillary and mandibular arches to gain space and correct the Class III relationship.

Vertical Correction:
The anterior open bite is primarily resolved through the programmed extrusion of the anterior teeth. This is supported by a later phase of elastics for premolar extrusion.

Transverse Correction:
The posterior edge-to-edge bite is addressed through slight maxillary expansion combined with slight mandibular compression to achieve proper intercuspation.

Interproximal Reduction (IPR):
A precise IPR protocol is planned for the upper and lower anterior segments, beginning from the start of treatment. This includes targeted IPR between the upper central incisors to manage the black triangle.

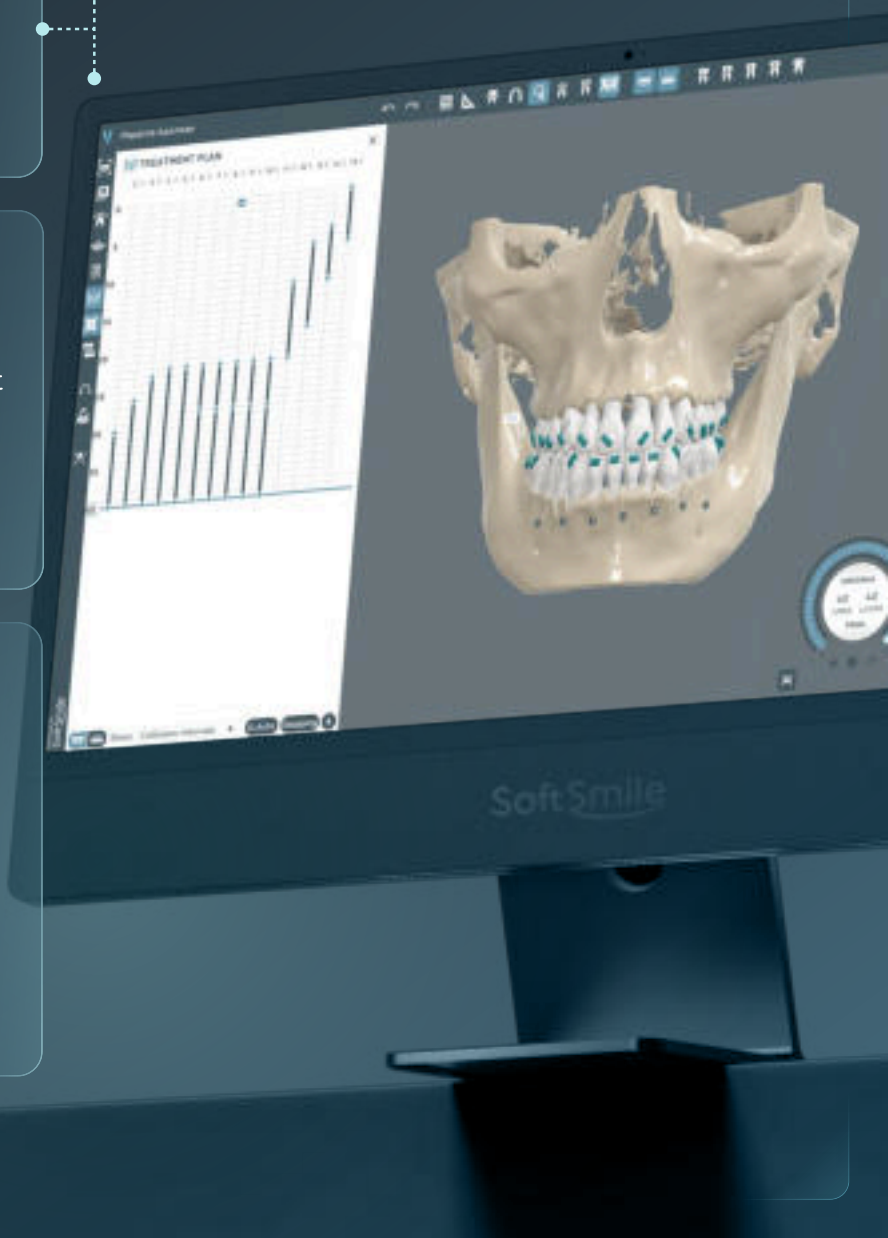
Elastics: A two-phase bilateral elastic protocol is essential.

Phase 1: Bilateral Class III elastics are used to support the sagittal correction and distalization.

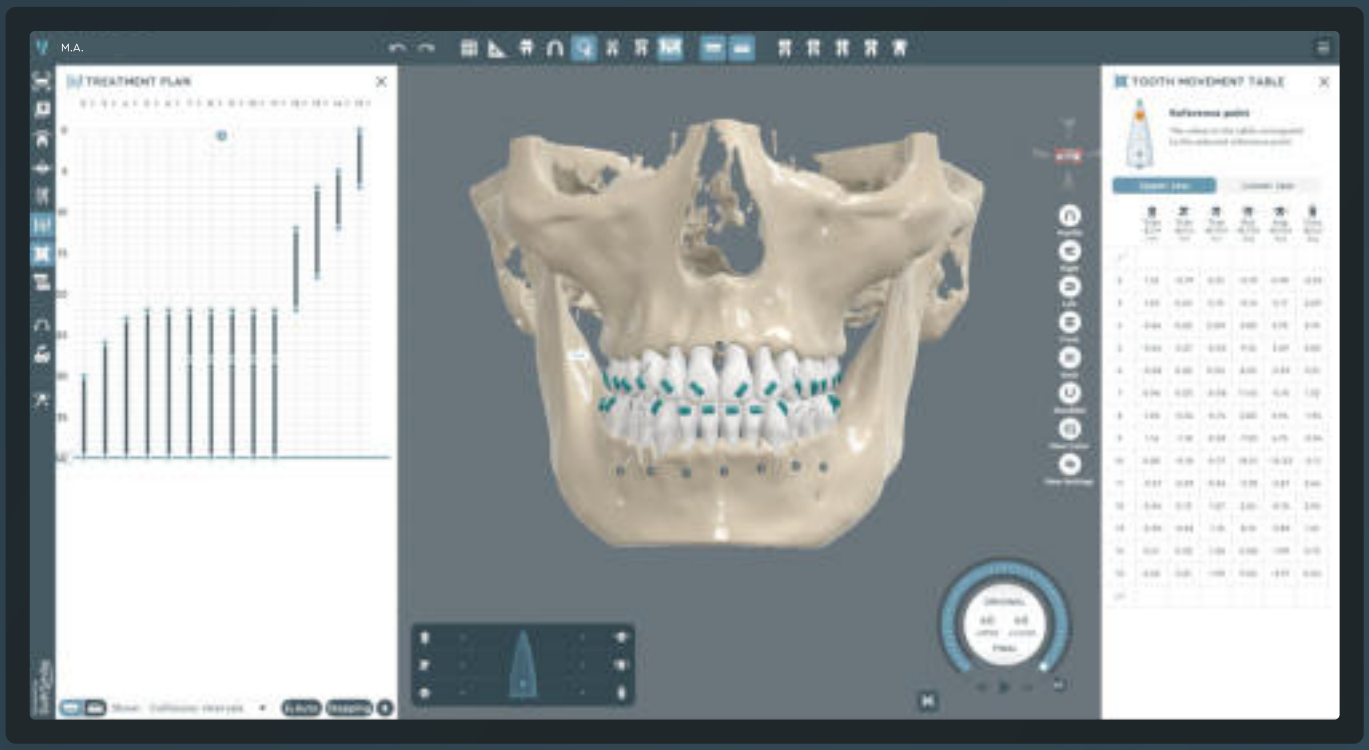
Phase 2: Bilateral elastics for premolar and canine extrusion are used to aid in the final closure of the bite.

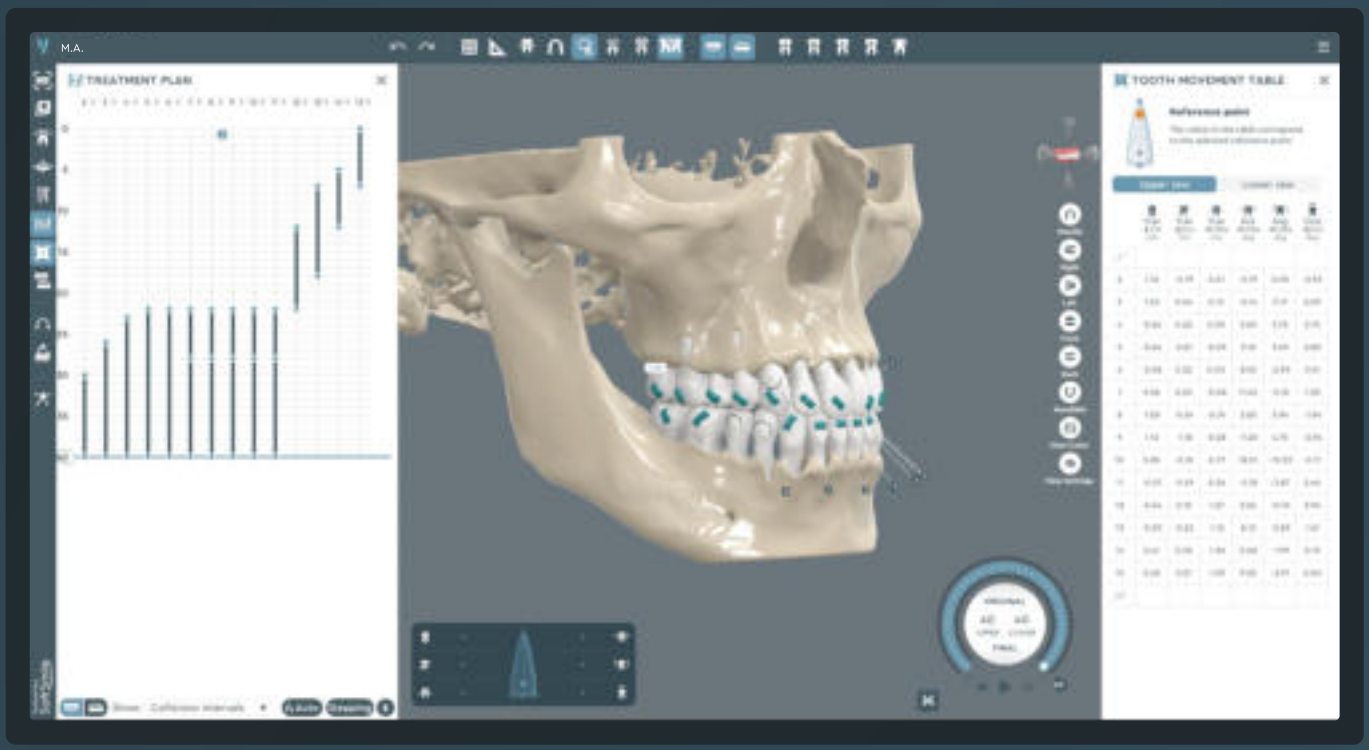
Attachments: Strategic placement of optimized attachments is used to ensure maximum biomechanical control over all planned complex movements, including distalization, extrusion, and root torque.

Integration of CBCT data:
Integration of CBCT data directly into the SoftSmile Vision software, providing precise visualization of root and bone anatomy to ensure all planned movements are biologically safe and predictable.



TREATMENT SETUP





TREATMENT SUMMARY

Parameter	Details
Software:	SoftSmile Vision
Arches treated:	Upper & Lower
Aligners:	40 upper / 40 lower
Total treatment time:	20 months
Key Movements:	Bilateral sequential distalization; Class III correction; Anterior open bite correction; Anterior extrusion; Arch coordination.
IPR:	Planned in upper & lower anterior segments (starting from Step 1).
Extractions:	None planned.
Attachments:	Optimized attachments placed for anchorage, torque, and root control.
CBCT:	Pre-treatment data integrated for root and bone visualization.
Elastics:	Two-phase protocol: 1) Bilateral Class III elastics; 2) Bilateral elastics for premolar extrusion.

VISION

by SoftSmile

BEFORE AND AFTER

Correction of a Class I Malocclusion with Moderate Crowding Using SoftSmile Vision

SoftSmile case

ABOUT THE CASE

This case demonstrates the digital correction of a bilateral Class I malocclusion, primarily characterized by severe anterior crowding in both arches and a mandibular dental midline deviation to the right.

Treatment involves a multi-faceted biomechanical approach designed to create space by combining transverse expansion of the maxillary arch, distal tipping ("tip-back") of the mandibular molars, and selective Interproximal Reduction (IPR). The entire correction is achieved without the use of intermaxillary elastics.

Using SoftSmile Vision, the clinician will resolve the crowding, correct the mandibular midline deviation, and achieve comprehensive leveling of the occlusal planes in an efficient treatment plan of 14 upper and 17 lower aligners. This fully digital workflow integrates CBCT data to ensure all movements are biologically safe and predictable.

Age:	**36**
Gender:	**Female**
Patient initials:	**A.V.**
Treatment time:	**8 months**
Number of aligners:	**17 L / 14 U**

CHIEF COMPLAINT:

The patient, a 36-year-old adult female, presented for orthodontic consultation with a chief complaint of aesthetic dissatisfaction. This concern was primarily attributed to a notable discrepancy in the anterior dental segment, specifically characterized as significant crowding.

Further clinical examination confirmed this primary finding and also identified secondary aesthetic challenges. A slight, yet noticeable, deviation of the maxillary dental midline was observed, canted towards the left side. Additionally, an analysis of the smile aesthetics indicated that the smile arc was non-consonant, highlighting a need for vertical correction and leveling to improve the overall smile line.

From an occlusal perspective, the foundational diagnosis was determined to be a stable bilateral Class I molar and canine relationship. This establishes the case as one focused on resolving alignment discrepancies and aesthetic refinements rather than requiring significant sagittal correction.

CLINICAL EXAMINATION AND DIAGNOSIS

Facial Phenotype: Facial analysis reveals a brachyfacial skeletal pattern, which is characterized by a dominant transverse dimension (bizygomatic width) relative to the vertical facial height. This horizontal growth tendency is complemented in the sagittal plane by a straight soft-tissue profile.

Canine/Molar Class: Intraoral examination confirms a stable, bilateral Class I molar and canine relationship. This diagnosis establishes that the malocclusion is non-sagittal, with therapeutic goals focused primarily on alignment and transverse/vertical discrepancies.

Overjet/Overbite & Midline: A detailed analysis of the frontal and smiling photographs confirms that the mandibular dental midline is slightly deviated to the right relative to the patient's facial midline. As a direct sequela of the anterior crowding, the occlusion is characterized by a constricted ("tight") overjet and a reduced, nearly edge-to-edge vertical overlap (overbite) in the anterior segment.

Occlusal Plane & Angulation: The severe crowding is directly associated with adverse dental angulations (tip) of the anterior teeth. The mandibular arch, in particular, exhibits a disorganized and uneven occlusal plane, presenting a disrupted curve of Spee that necessitates comprehensive leveling to achieve a functional and aesthetic incisal plane.

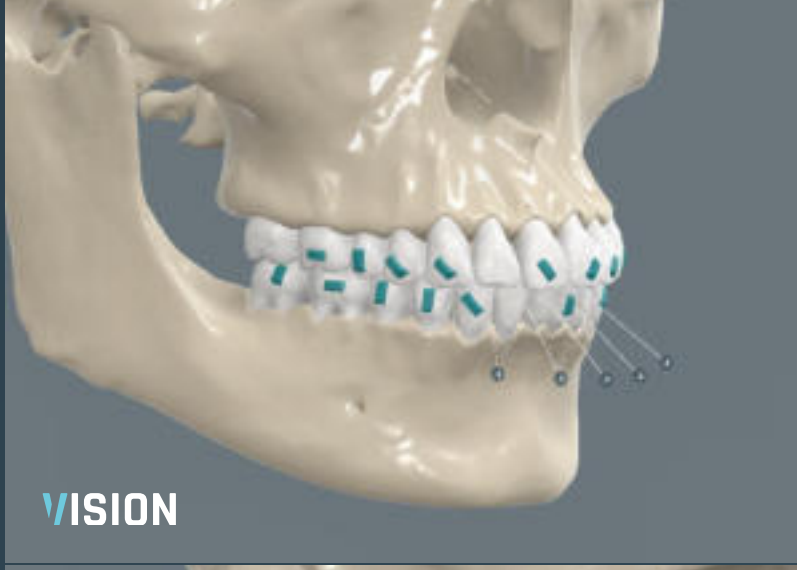
Crowding/Spacing: The primary diagnostic finding is a significant arch-length-to-tooth-size discrepancy. This manifests as severe anterior crowding in both the maxillary and mandibular dental arches.

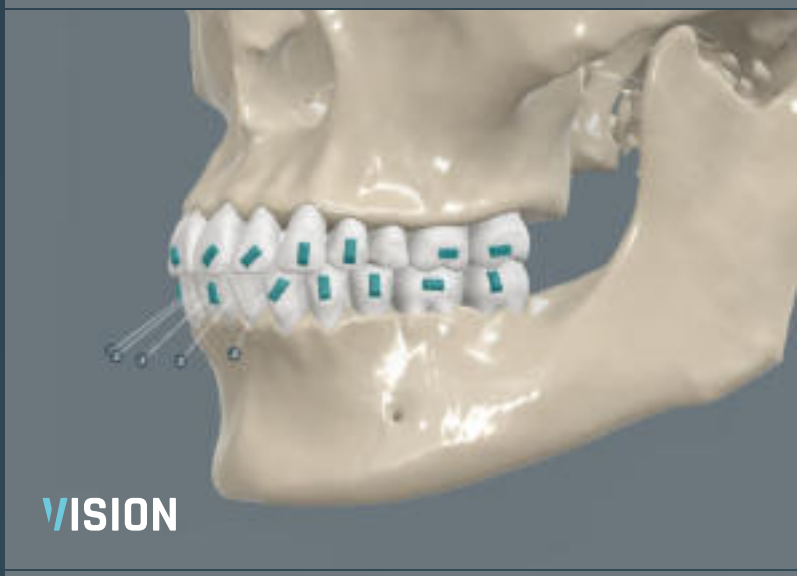
TREATMENT PLAN

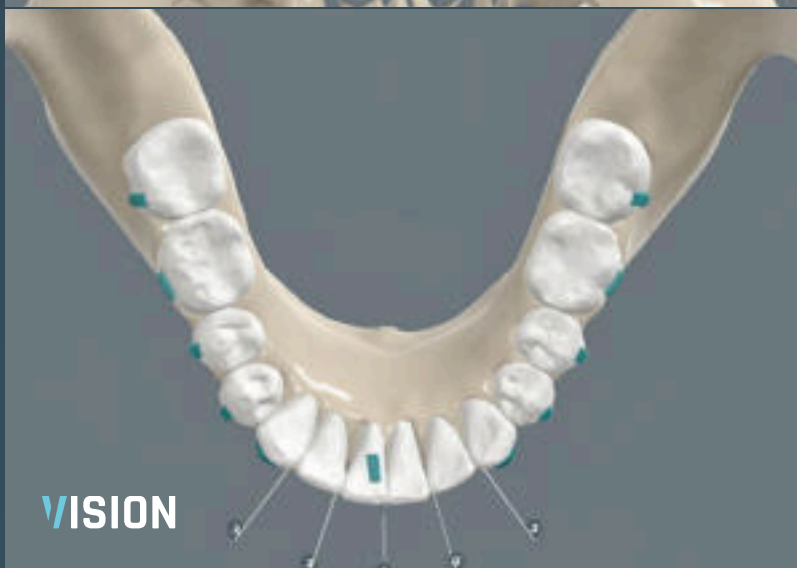
The treatment strategy is designed to resolve significant anterior crowding within a stable, bilateral Class I occlusal framework. The primary goal is to create sufficient space for ideal alignment, correct the mandibular midline deviation, and level the occlusal planes. This will be achieved through a multi-faceted biomechanical approach, including transverse expansion in the maxilla, distal tipping in the mandible, and selective interproximal reduction. The entire treatment is planned efficiently with 14 upper and 17 lower aligners and does not require the use of intermaxillary elastics.

KEY OBJECTIVES FOR THIS TREATMENT INCLUDE:

- Resolution of the severe anterior crowding in both the maxillary and mandibular arches.
- Correction of the mandibular dental midline deviation to ensure coincidence with the centered maxillary and facial midlines.
- Comprehensive leveling of the occlusal plane, particularly in the mandibular arch.
- Correction of the adverse anterior dental angulations (tip) to establish ideal inclination.
- Achievement of a functional and aesthetic Class I occlusion with proper intercuspation.







TREATMENT SETUP

Maxillary Arch: Transverse development is planned through the controlled expansion of the premolar and first molar segments. This movement is synergistically supported by the derotation and slight retraction of the second molars, ensuring efficient and stable biomechanics.

Interproximal Reduction (IPR): A precise IPR protocol is planned for the anterior segments, scheduled to begin at Step 12, to finalize the resolution of the crowding.

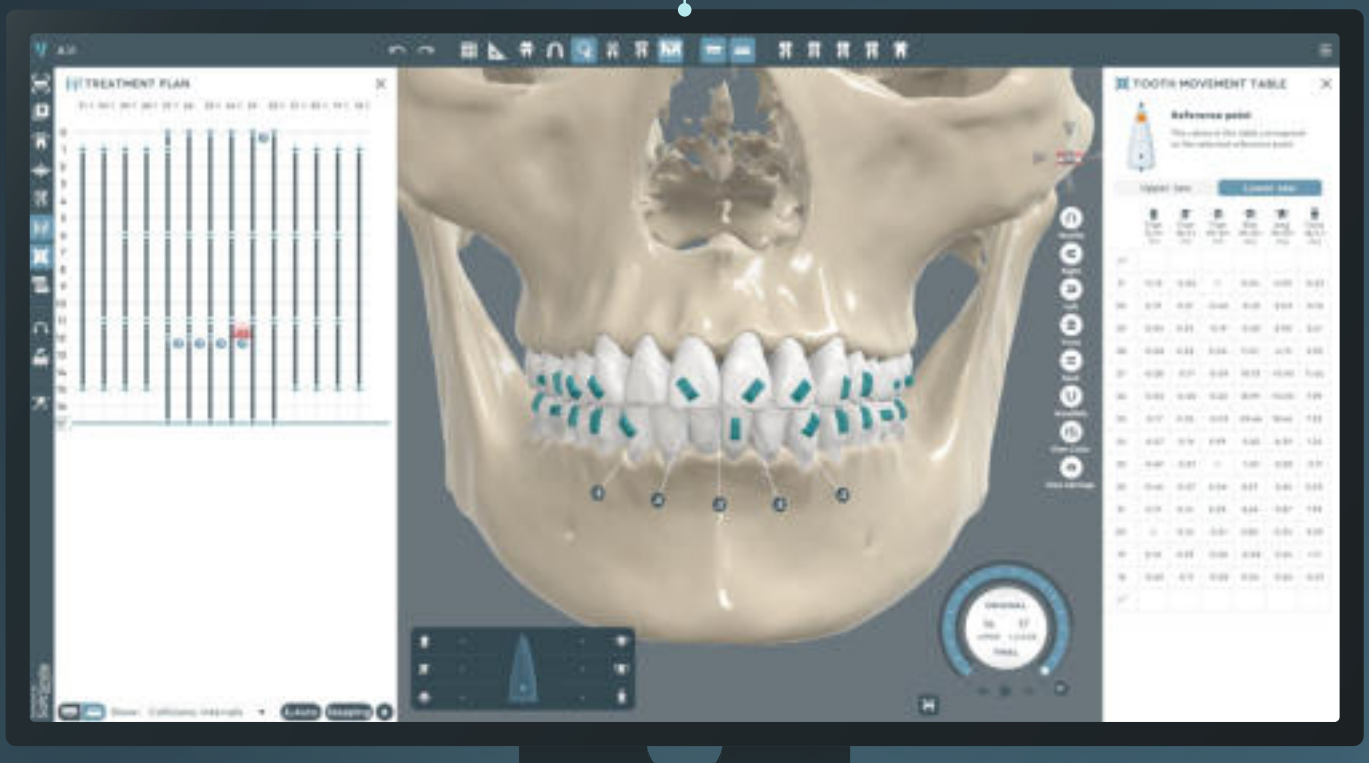
Attachments: Strategic placement of optimized attachments is used to ensure maximum biomechanical control over all planned movements, including root torque, distal tipping, and leveling.

Mandibular Arch: Space creation is achieved via two primary mechanics: distal tipping ("tip-back") of the mandibular molars to gain posterior arch length, and programmed Interproximal Reduction (IPR).

Finishing: The plan includes the final correction of anterior dental tip and the comprehensive leveling of the occlusal planes.

Elastics: No intermaxillary elastics are required for this treatment plan.

Integration of CBCT data directly into the SoftSmile Vision software, providing precise visualization of root and bone anatomy to ensure all planned movements are biologically safe and predictable.



TREATMENT SUMMARY

Parameter	Details
Software:	SoftSmile Vision
Arches treated:	Upper & Lower
Aligners:	14 upper / 17 lower
Total treatment time:	8 months
Key Movements:	Crowding resolution; Midline correction; Lower molar distal tipping ("tip-back"); Upper transverse expansion; Leveling of occlusal plane.
IPR:	Planned in anterior segments (starting at Step 12) to resolve crowding.
Extractions:	None planned.
Attachments:	Optimized attachments placed for anchorage, torque, and root control.
CBCT:	Pre-treatment data integrated for root and bone visualization.
Elastics:	None planned.

VISION

by SoftSmile

BEFORE AND AFTER

Correction of a Class II Malocclusion and Anterior Crowding Using SoftSmile Vision

SoftSmile case

ABOUT THE CASE

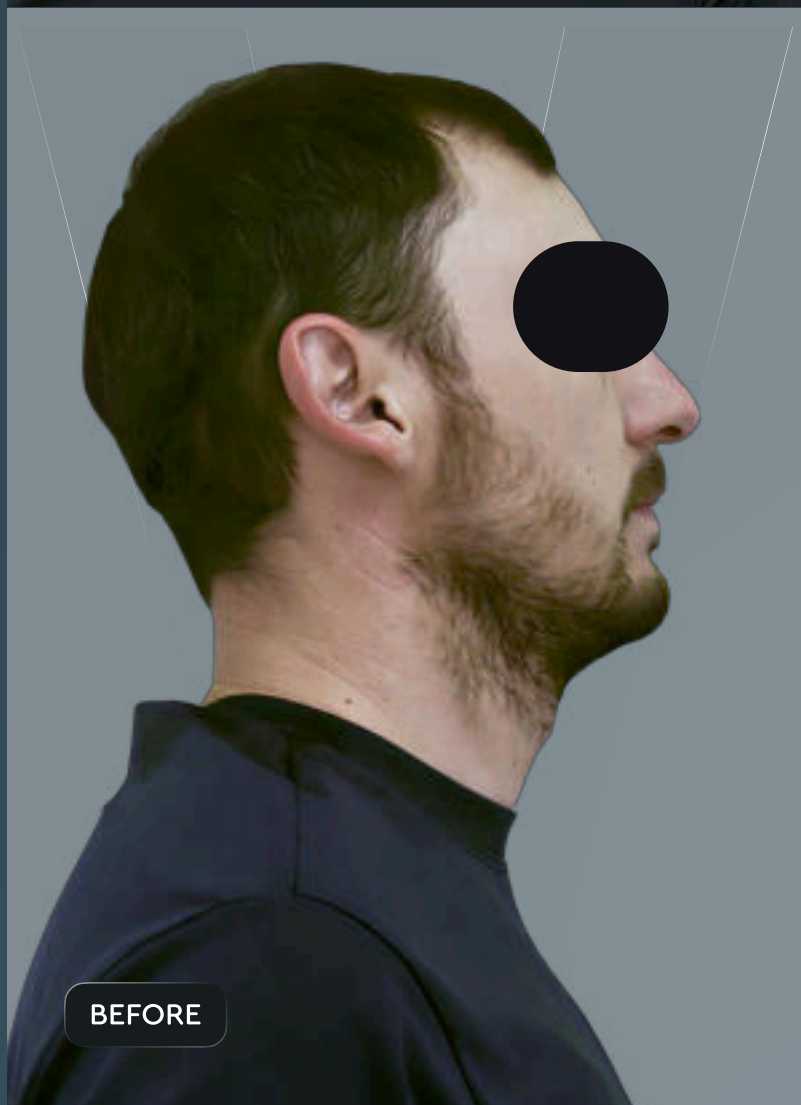
This case demonstrates the digital correction of a unilateral Class II malocclusion, primarily characterized by significant spacing and decompensation on the left side. The initial presentation also included a slight lower midline deviation to the left.

The treatment plan is designed to resolve the canine class and through a combination of biomechanics. In the lower arch, space is gained by the distal tipping of molars ("tip-back") and anterior mesialization. In the upper arch, the plan includes distalization of the premolars and first molars, along with the retraction of the anterior teeth.

Using SoftSmile Vision, the clinician will correct the midline deviation, level the occlusal plane, and correct the anterior and posterior dental tip.

PATIENT DATA

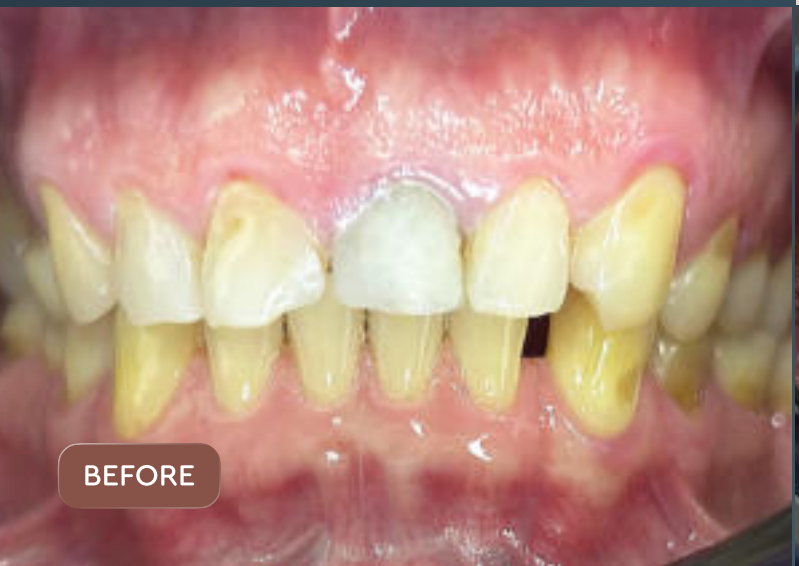
Age:	39
Gender:	Male
Patient initials:	S.B.
Treatment time:	16 months
Number of aligners:	32 L / 32 U



CHIEF COMPLAINT:

The patient presented with a chief complaint of aesthetic dissatisfaction, primarily stemming from significant crowding observed in both the maxillary and mandibular arches, which compromises the overall harmony of the smile.The clinical examination confirms a Class II sagittal malocclusion, characterized by an increased vertical overlap (deep bite).

The clinical presentation is further complicated by the presence of multiple edentulous spaces and generalized dental attrition affecting the occlusal and incisal surfaces of both arches.



CLINICAL EXAMINATION AND DIAGNOSIS

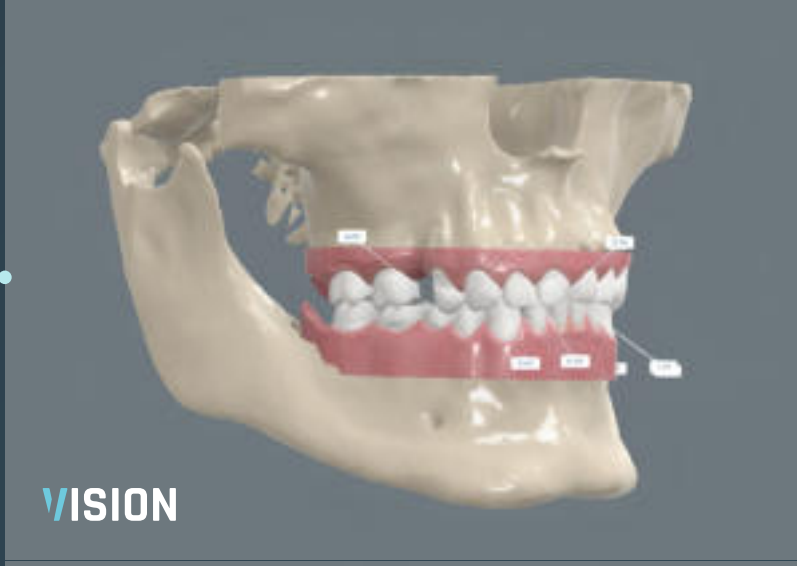
Facial Phenotype: Facial analysis reveals a mesofacial skeletal pattern, complemented by a straight soft-tissue profile.

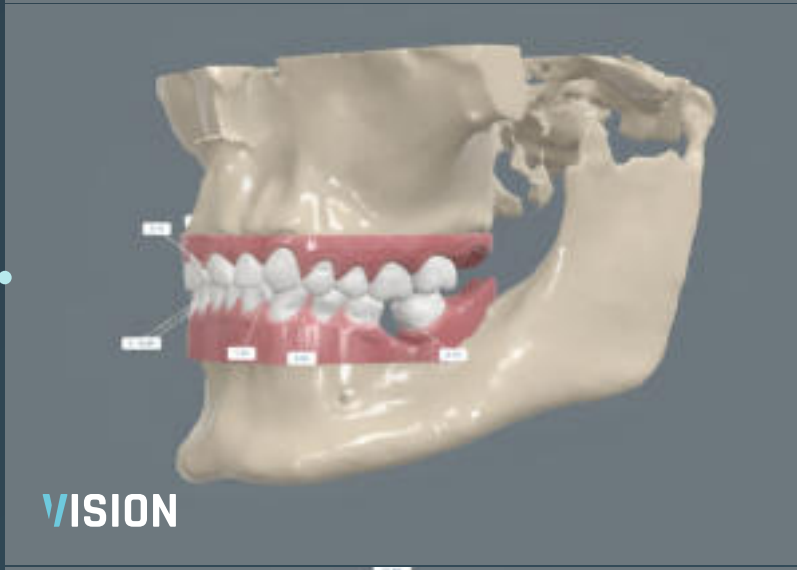
Canine/Molar Class: Intraoral examination indicates a Class II molar and canine relationship, which is localized to the left side.

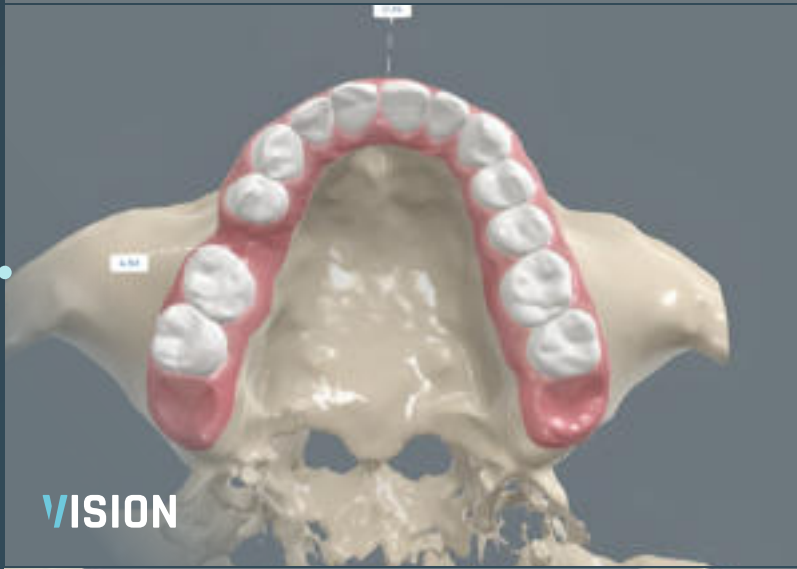
Overjet/Overbite: In the vertical dimension, a mild deep bite (increased overbite) is observed. Sagittally, the patient presents with a constricted or "tight" overjet.

Crowding: Arch analysis shows moderate crowding in the maxillary arch. The mandibular arch exhibits a more complex presentation, characterized by moderate-to-severe anterior crowding combined with posterior spacing (diastemas) on the left side.

Missing Teeth: The patient is congenitally missing or has a history of extraction of teeth 1.5 (maxillary right second premolar) and 3.6 (mandibular left first molar).

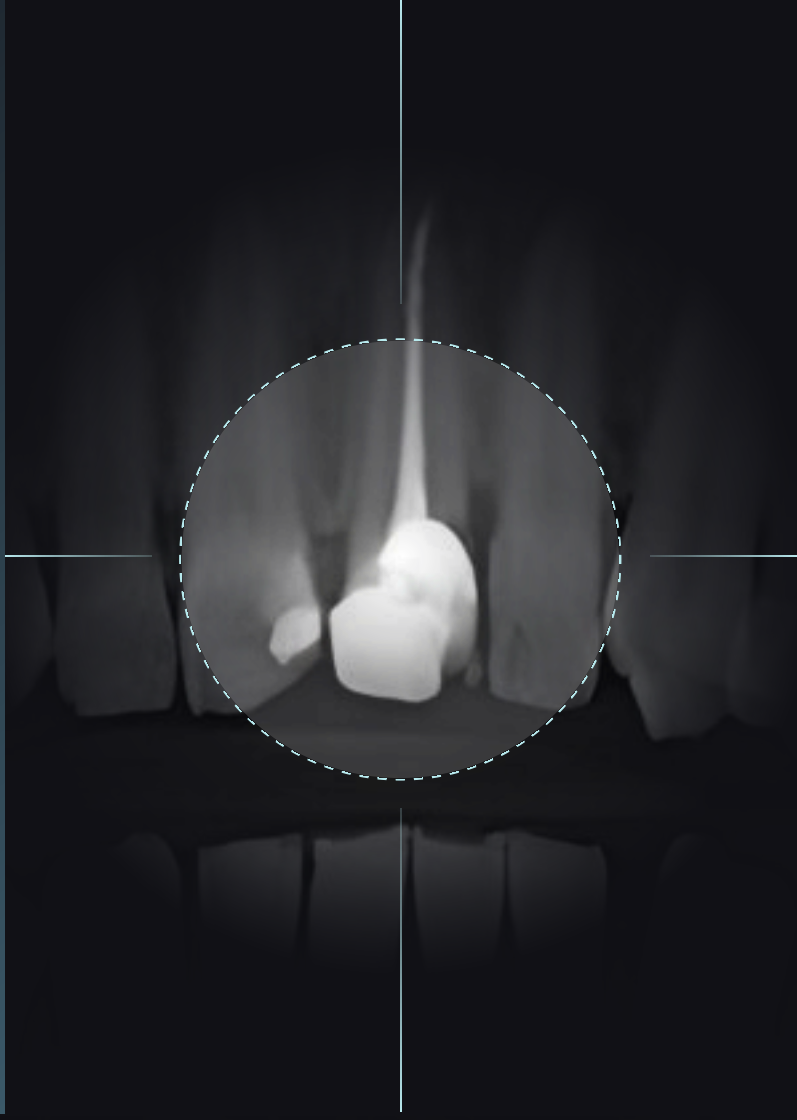






RADIOGRAPHIC FINDINGS (RX):

Radiographic evaluation via panoramic X-ray confirms the edentulous spaces corresponding to 1.5 and 3.6. Tooth 4.8 (mandibular right third molar) is present and noted as impacted. Tooth 2.1 (maxillary left central incisor) displays evidence of endodontic treatment with a post-and-core restoration. Adjacent to the 3.6 edentulous space, tooth 3.7 (mandibular left second molar) exhibits significant mesial tilting. Additionally, multiple posterior restorations are visible throughout the dentition.



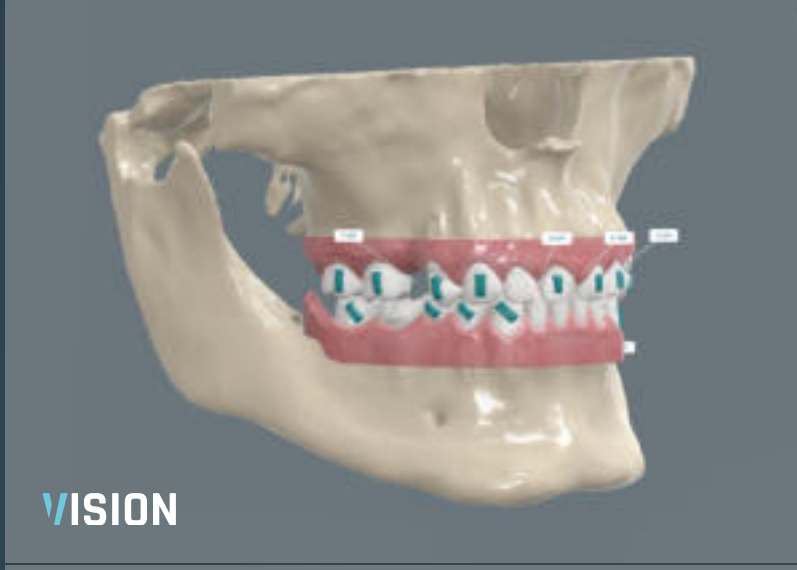
Other: Further clinical observation reveals generalized dental wear, consistent with attrition, affecting the incisal edges of the anterior teeth and the occlusal surfaces of the posterior teeth.

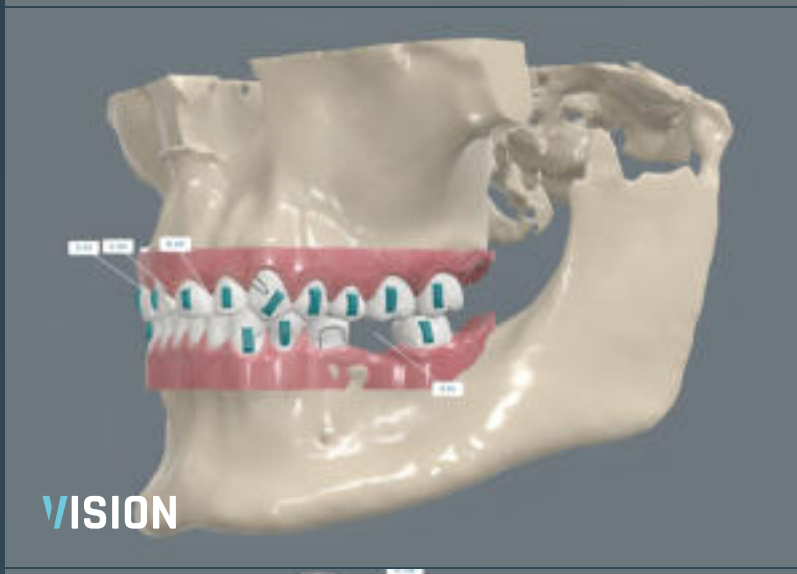
TREATMENT PLAN AND SETUP

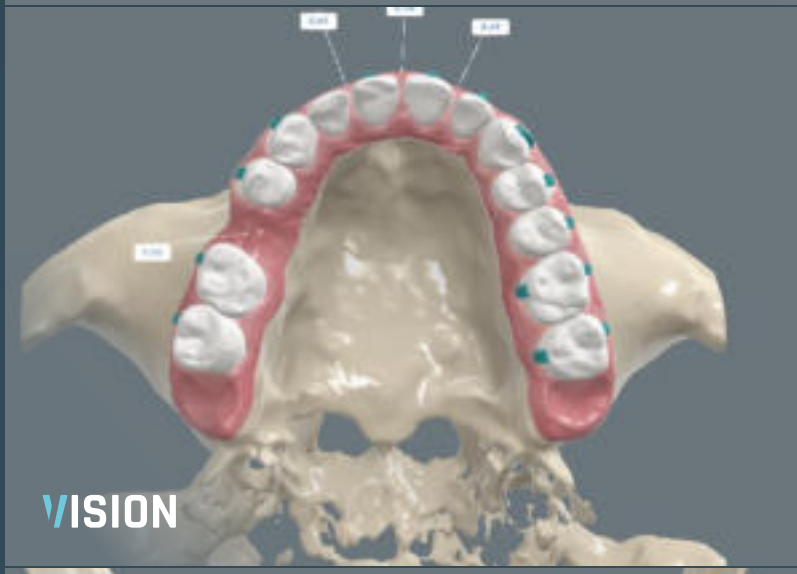
The treatment strategy is designed for a comprehensive occlusal reconstruction. The primary goal is to correct the Class II malocclusion and the deep bite. This sagittal correction will be achieved through a coordinated approach: sequential distalization of the entire upper arch combined with controlled mesialization of the lower posterior segments.

KEY OBJECTIVES FOR THIS TREATMENT INCLUDE:

- Sagittal correction from a Class II to a stable Class I molar and canine relationship.
- Resolution of the deep bite and leveling of the curve of Spee to establish functional anterior guidance and harmonize the smile line.
- Resolution of crowding in both arches through planned alignment and arch form coordination.
- Harmonization of the occlusal plane, which includes the intrusion of the upper left segment to correct discrepancies.
- Systematic management and preparation of the edentulous spaces (at 1.5 and 3.6) for future prosthetic restorations, ensuring ideal positioning and angulation of adjacent teeth.







TREATMENT SETUP

Sequential distalization of the upper posterior teeth to create space and facilitate the Class II correction.

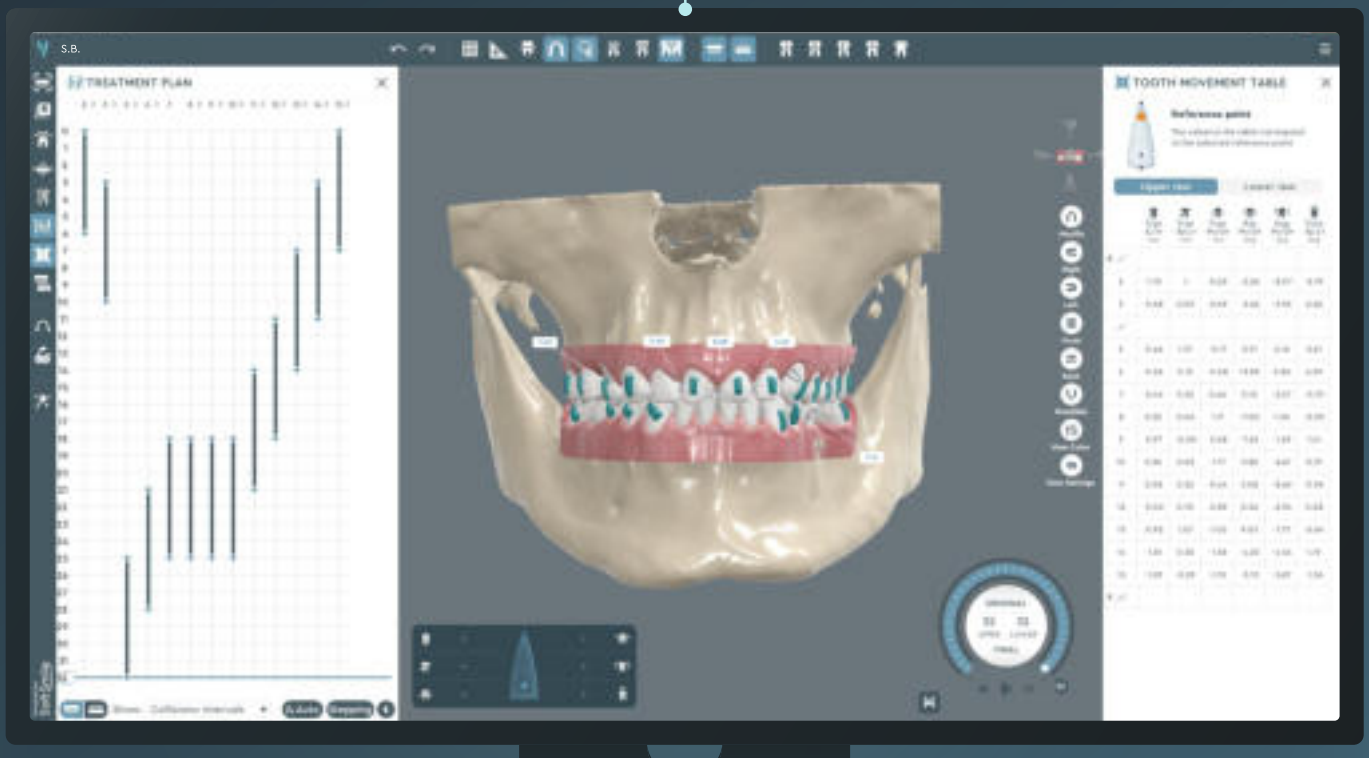
Comprehensive arch coordination and alignment to establish a stable, wide, and functional occlusion. This includes intrusion of the upper left segment to level the occlusal plane and correct interferences.

Strategic placement of optimized attachments to ensure maximum biomechanical control, manage anchorage effectively, and guarantee the precise root torque and angulation required for these complex movements.

Deep bite correction and leveling of the curve of Spee, achieved through a precise combination of lower incisor intrusion and controlled extrusion of the upper posterior teeth

Use of Class II elastics, on the left side, to reinforce anchorage during the sagittal correction phase and support the planned distalization and mesialization movements.

Integration of CBCT data directly into the SoftSmile Vision software providing precise visualization of root and bone anatomy to ensure all planned movements are biologically safe and predictable.



TREATMENT SUMMARY

Parameter	Details
Software:	SoftSmile Vision
Arches treated:	Upper & Lower
Aligners:	32 upper / 32 lower
Total treatment time:	16 months
Key Movements:	Upper arch distalization; Lower arch mesialization; Deep bite correction; Leveling of Curve of Spee.
IPR:	None
Extractions:	All 3rd molars extracted previously
Attachments:	Optimized attachments placed for anchorage, torque, and root control.
CBCT:	Pre-treatment data integrated for root and bone visualization.
Elastics:	Class II elastics planned (left side) for sagittal correction.