

# Caso n° 2

## Malocclusione dell'adulto

Compensazione Terza Classe Adulto

2019

Redi Gerxhani

Età paziente: 35,2

Sesso: M





Fotografie extraorali - Data 14/07/2015

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Fotografie intraorali iniziali - Data 14/07/2015



**Modelli in gesso iniziali - Data 14/07/2015**

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# ORTOPANTOMOGRAFIA

## Formula dentaria

inserire formula corretta cancellando i denti mancanti

8	7	6	5	4	3	2	1		1	2	3	4	5	6	7	8
8	7	6	5	4	3	2	1		1	2	3	4	5	6	7	8



## Commenti:

Permanent dentition. A periapical lesion is present above the distal root of the 16. The periodontal bone level does not show significant defects. 48 is horizontally positioned. element 28 has a mesial cavity. TMJs, sinus maxillaries and bones do not show anomalies.

# Teleradiografia latero-laterale e cefalometria iniziale



Data 14/07/2015

inserire dati corretti

## RAPPORTI SCHELETRICI SAGITTALI

Posizione del Mascellare S.N / A	±	[ 82° ]
Posizione della Mandibola S.N / Pg	±	[ 89° ]
Relazione inter-mascellare sagittale A.N / Pg	±	[ -7° ]

## RAPPORTI SCHELETRICI VERTICALI

Inclinazione del Mascellare S.N / ANS.PNS	±	[ 5° ]
Inclinazione della Mandibola S.N / Go.Gn	±	[ 21° ]
Relazione Inter-mascellare Verticale ANS.PNS / Go.Gn	±	[ 18° ]

## RAPPORTI DENTO-BASALI

Inclinazione Incisivo Superiore +1 / ANS.PNS	±	[ 104° ]
Inclinazione Incisivo Inferiore -1 / Go.Gn	±	[ 92° ]
Compensazione Incisivo Inferiore -1 / A.Pg (mm.)	±	[ -1mm ]

## RAPPORTI DENTALI

Overjet	±	[ -3mm ]
Overbite	±	[ 3mm ]
Angolo Inter-incisivo	±	[ 131° ]

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# DIAGNOSI

<b>Occlusale Sagittale</b>	Molars class III, canines class III on the right side, class I on the left side, retroinclined L incisors, anterior cross bite from 1.2 to 2.2, negative OJ (-3 mm).
<b>Occlusale Verticale</b>	OB 3mm
<b>Occlusale Trasversale</b>	Centered midline, concordance in the ratio between transversal U-L intermolar coordination widths, normal hard palate.
<b>Scheletrica Sagittale</b>	Skeletal: The sagittal relationship is judged Skeletal Class III (A-N-Pg: $-7^\circ$ ) with a protrusion of the mandible (S-N-Pg: $89^\circ$ ).
<b>Scheletrica Verticale</b>	The skeletal vertical pattern is hypodivergent (S-N/Go-Gn: $21^\circ$ ) vertical jaw relations (ANS-PNS/Go-Gn: $18^\circ$ )

# DESCRIZIONE DEL CASO

Profile: Compared to the TV line (through subnasale), the position of the U lip is slightly retruded; L lip and B point are retruded; soft tissue Pog is protruded; naso-labial angle is normal; accentuated labio-mental fold, thick mandibular symphysis.

Frontal: Slight asymmetric face with right deviation of the jaw, inferior third of the face decreased, competent lips. Smile macro-esthetics: U mid-line centered to the philtrum, reduction of ratio between arch-width and smile-width, teeth curvature not coincident with lower lip curvature, unacceptable incisor display. CR-MI discrepancy (mandibular anterior shift), normal mouth opening, absence of correct protrusion and laterotrusion guidance. Nose breathing, normal deglutition. Mandibular arch: Symmetrical arch form, slight teeth disalignment, space analysis prevision: 3,5mm space required.

Maxillary arch: Symmetrical arch form, moderate dental crowding, space analysis prevision: no space required.

Occlusion Sagittal: Molars class III, canines class III on the right side, class I on the left side, retroinclined L incisors, anterior cross bite from 1.2 to 2.2, negative OJ (-3 mm).

Occlusion Vertical: OB 3 mm.

Occlusion Transversal: Centered midline, concordance in the ratio between transversal U-L intermolar coordination widths, normal hard palate.

## Patient's chief complaint

# PIANO DI TRATTAMENTO

Obtain a proper mastication and solve anterior crossbite. No major esthetic complaints

## Treatment goals

Occlusal: Resolve teeth disalignment and anterior crossbite, obtain molars and canines class I relationship, obtain proper OJ and OB. Restoration of incisal portion of the upper incisors chipped and worn by the animal occlusion.

Cephalometric: increase the U incisors inclination and decrease L incisors inclination, obtaining good positions relative to their bases.

Esthetics: Normalize L lip and B point position, increase the ratio between arch-width and smile-width, achieve a teeth curvature coincident with the lower lip one maintaining a good incisors display, achieve a micro-esthetics of the smile.

Functional: achieve a proper protrusion and laterotrusion guidance, eliminate anterior teeth trauma.

**Treatment consideration, stages and appliances** Relying on the fact that the profile was not badly compromised by class III and the incisors' inclination allowed room for improvement, and considering that the patient didn't want to completely change his face and preferred avoid orthognatic surgery, I decided to take the path of orthodontic compensation. I decided to start the treatment with fixed multibracket appliance choosing a continuous archwire approach. Leveling and aligning sequence except from 2.2 which is initially excluded from engagement. It was engaged after space creation by means of open coil springs. 13/15° degrees bend of negative torque was necessary to correct root position. Correction of anterior cross bite by compensation of upper and lower incisors.

Occlusal blocks on 37 and 47 to eliminate occlusal interference during anterior relationship correction..

Control of the lingualization effects of class III elastics was necessary and was provided by a third order bend of 6/8° on the lower incisors. Finishing.

. At the debonding a proper retention strategy was provided with upper and lower fixed retainers and a hawley appliance in the upper arch.

At the end of orthodontics phase, the patient wanted to improve esthetics of upper incisors which was chipped by the malocclusion, so minor reconstructions of the incisal edges were performed by the general practitioner. On 2.2 a major reconstruction was performed.



Fotografie finali extraorali - **Data** 25/06/2017

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# ORTOPANTOMOGRAMMA FINALE

## Formula dentaria

inserire formula corretta cancellando i denti mancanti

8 7 6 5 4 3 2 1 | 1 2 3 4 5 6 7 8

8 7 6 5 4 3 2 1 | 1 2 3 4 5 6 7 8



## Commenti:

No root resorptions. The bone level was not significantly influenced by the orthodontic treatment. Periapical lesion above distal root of 16 is still present so that mesial cavity on 28. 12 root seems slightly distally inclined. Third molars have to be clinically monitored. TMJs, sinus maxillaries and bones do not show anomalies.

# Teleradiografia latero-laterale e cefalometria finale



inserire dati corretti

## RAPPORTI SCHELETRICI SAGITTALI

Posizione del Mascellare S.N / A	±	[ 84° ]
Posizione della Mandibola S.N / Pg	±	[ 89° ]
Relazione inter-mascellare sagittale A.N / Pg	±	[ -5° ]

## RAPPORTI SCHELETRICI VERTICALI

Inclinazione del Mascellare S.N / ANS.PNS	±	[ 4° ]
Inclinazione della Mandibola S.N / Go.Gn	±	[ 20° ]
Relazione Inter-mascellare Verticale ANS.PNS / Go.Gn	±	[ 20° ]

## RAPPORTI DENTO-BASALI

Inclinazione Incisivo Superiore +1 / ANS.PNS	±	[ 118° ]
Inclinazione Incisivo Inferiore -1 / Go.Gn	±	[ 87° ]
Compensazione Incisivo Inferiore -1 / A.Pg (mm.)	±	[ 0mm ]

## RAPPORTI DENTALI

Overjet	±	[ 1,5mm ]
Overbite	±	[ 1,5mm ]
Angolo Inter-incisivo	±	[ 139° ]

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# SINTESI FINALE

## Risultati scheletrici

Skeletal: The cephalometric data reveals that sagittal jaw relationship remains as a Skeletal

Class III although ANPg has slightly improved (A-N-Pog:  $-5^\circ$ ), The skeletal vertical pattern (s- N/Go-Gn:  $20^\circ$ ) and the vertical jaw relation (ANS-PNS/Go-Gn:  $20^\circ$ ) remains hypodivergent.

## Risultati dentali

Dental: Overjet and overbite are now within the norm (OJ: 1,5 mm; OB: 1,5 mm). The inclination of the upper incisors (U1/ANS-PNS:  $118^\circ$ ) is increased and the inclination of the lower incisors is decreased (L1/Go-Gn:  $87^\circ$ ) in order to have a dental class III compensation. The interincisal angle is increased (U1/L1:  $139^\circ$ ).

## Risultati a carico dei tessuti molli

Gingival inflammation due to incorrect oral hygiene.



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# Grazie!

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