



University "G. d'Annunzio" Chieti – Pescara
Department of Medical , Oral and Biotechnological Science
Director Prof. Sergio Caputi



Orthodontics Specialty School
Director Prof. Felice Festa

Terapia ortodontica 3D dell'ATM, pre-chirurgica e dei casi complessi 3D Prof Felice Festa



47th SIDO International Congress

**"Patient-important outcomes
in Orthodontics"**

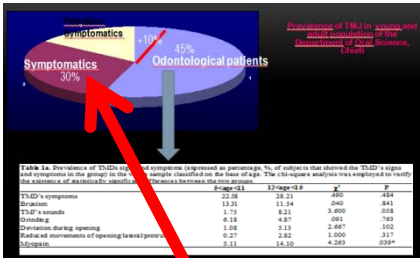
Florence 13-15 October 2016

- Terapia ortodontica 3D dell'ATM
- Terapia ortodontica 3D pre-chirurgica
- Terapia ortodontica dei casi complessi 3D
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- Terapia ortodontica 3D dell'ATM
- Terapia ortodontica 3D pre-chirurgica
- **Terapia ortodontica dei casi complessi 3D**
-





Orario	Poltrona 1	Poltrona 2	Poltrona 3	Poltrona 4
13:30 - 14:00	/	/	/	/
14:00 - 14:30	/	/	/	/
14:30 - 15:00	/	/	/	/
15:00 - 15:30	/	/	/	/
15:30 - 16:00	/	/	/	/
16:00 - 16:30	/	/	/	/
16:30 - 17:00	/	/	/	/
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17:30 - 18:00	/	/	/	/
18:00 - 18:30	/	/	/	/

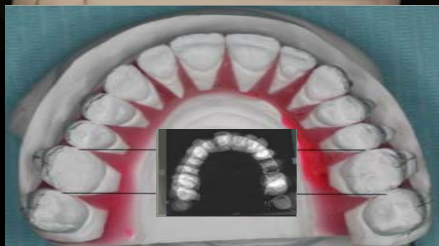
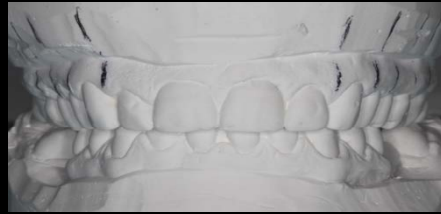
Case 18 TMJ Extrarticular: Class I, Deep Bite Pass. Aligners+Corticision First+ Lingual Appliance

TMJ: Severe Postural Imbalance+Severe Myofascial Pain Syndrome , severe soreness Temporalis Tendon RL, Sternocleidomastoideus RL

Age:39 years

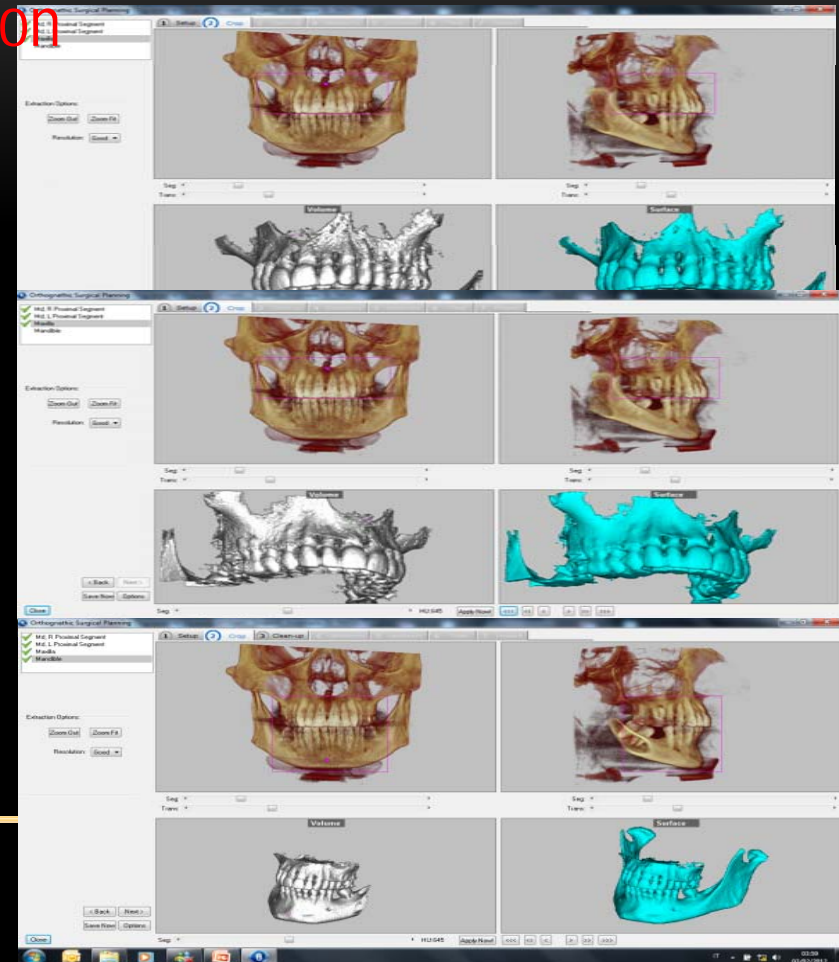
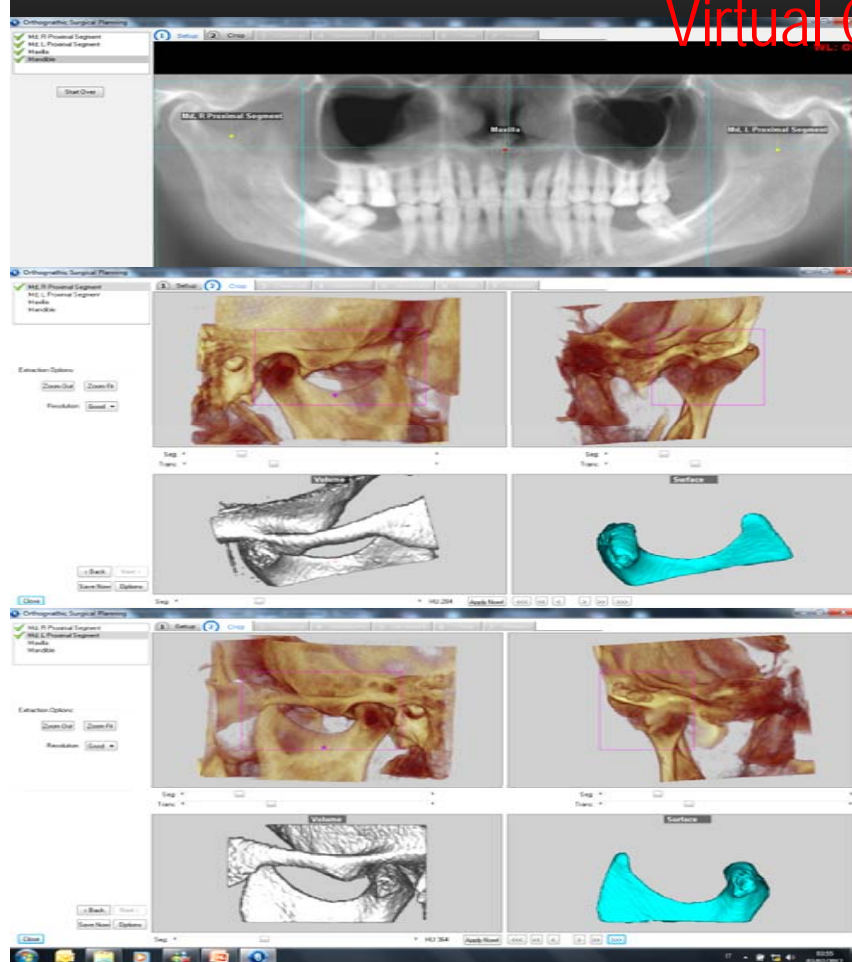
2 months Passive Aligner + Corticision First + Lingual System 6 Months therapy

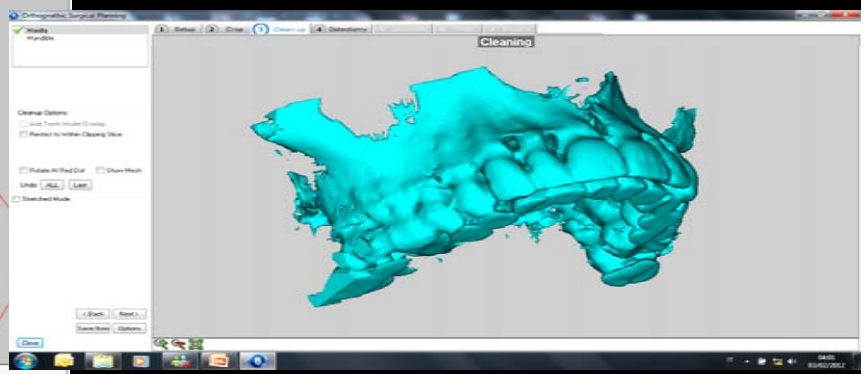
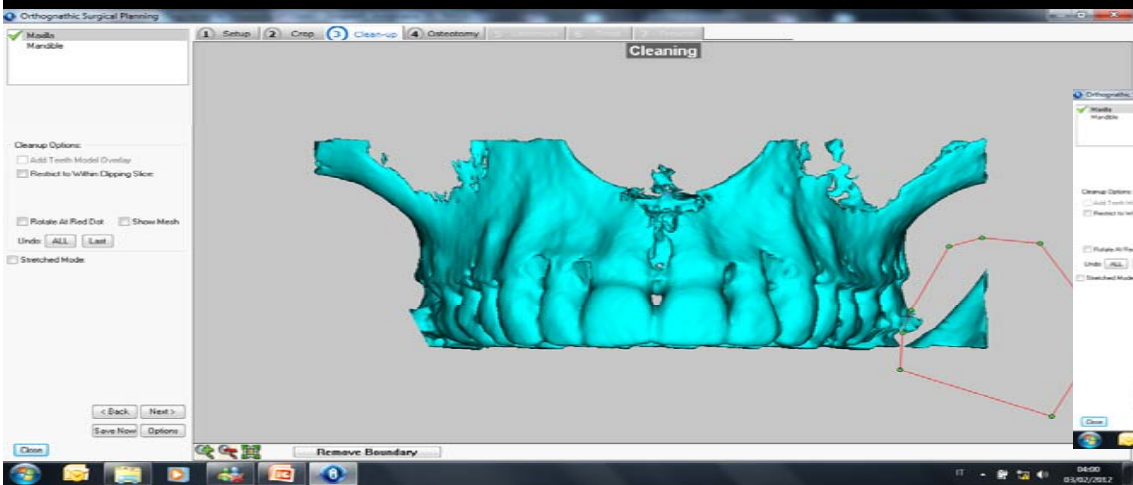
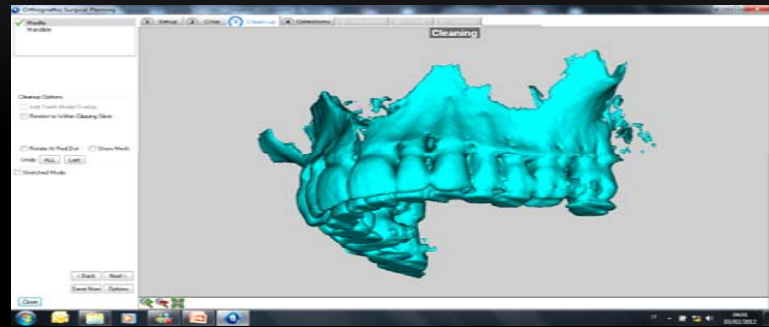
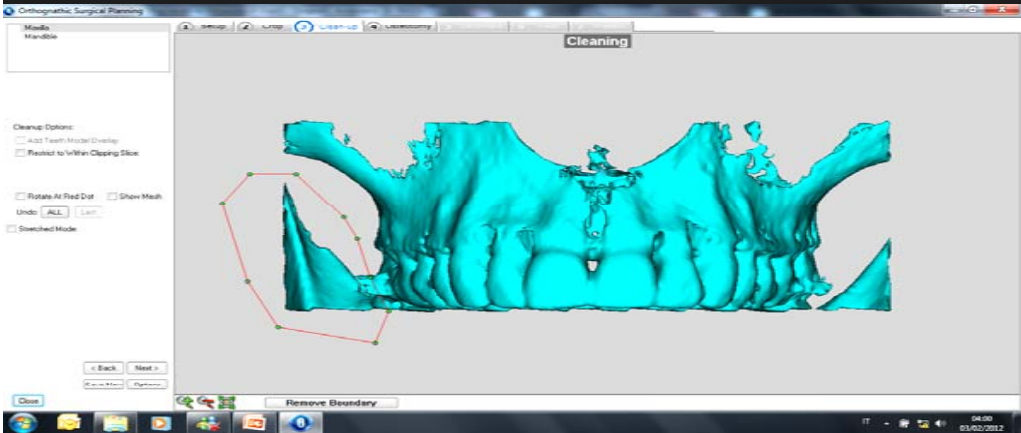
VTO : set-up models Virtual Corticision

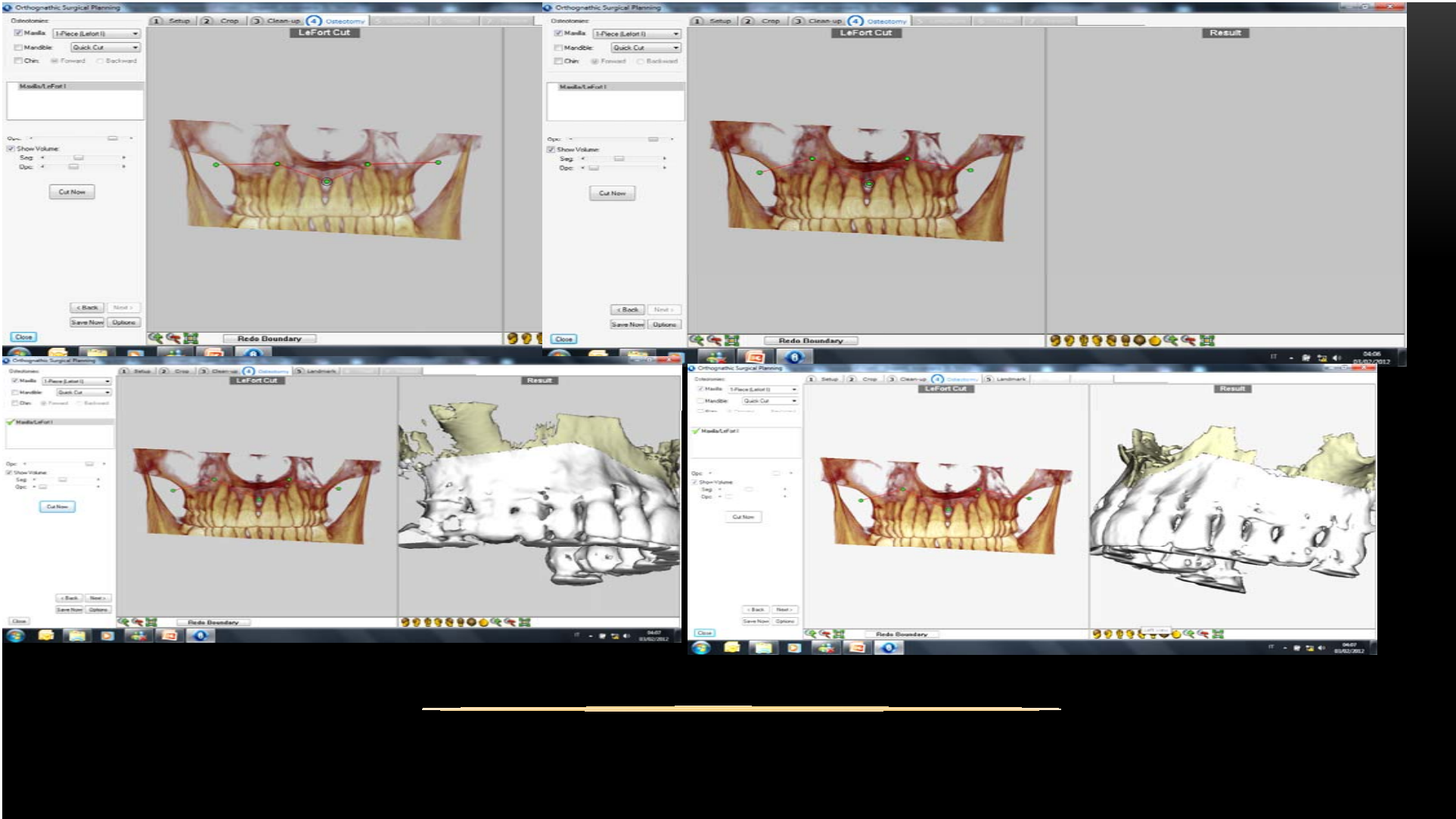


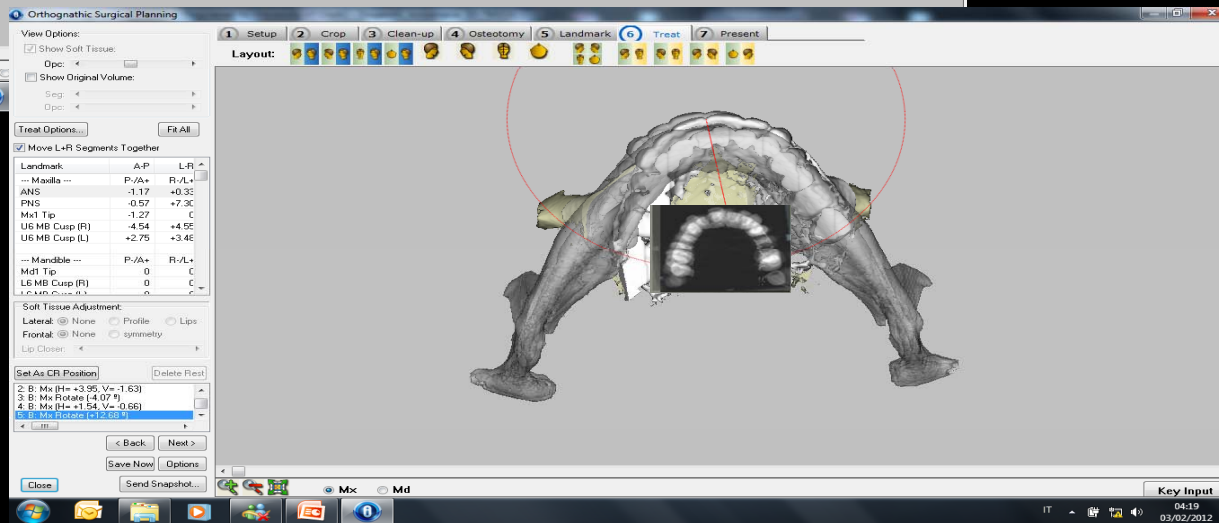
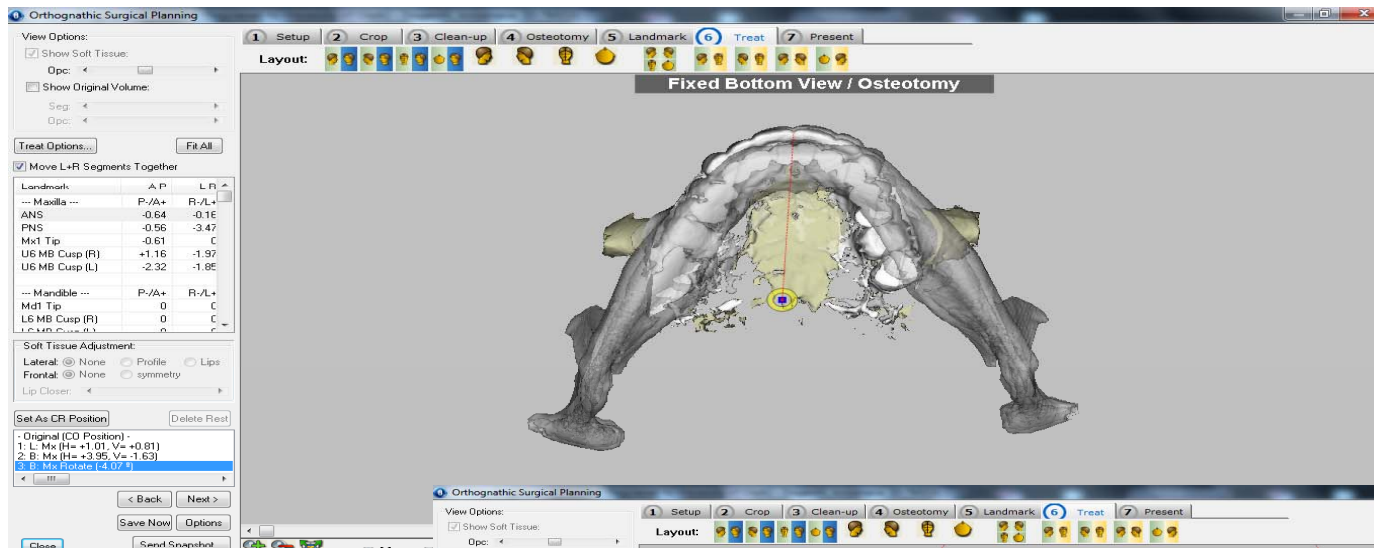
VTO : Set-up modes

Virtual Corticision





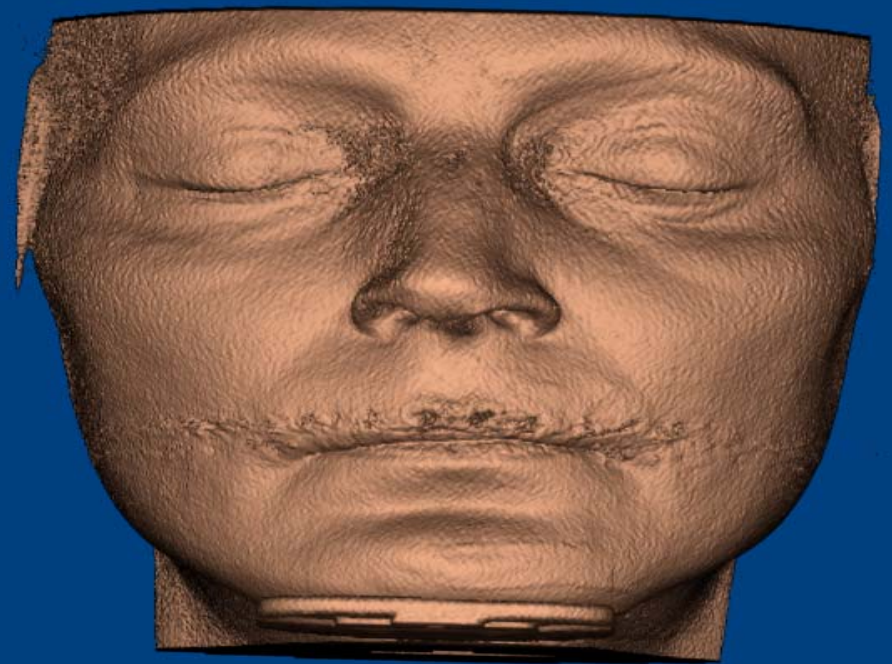
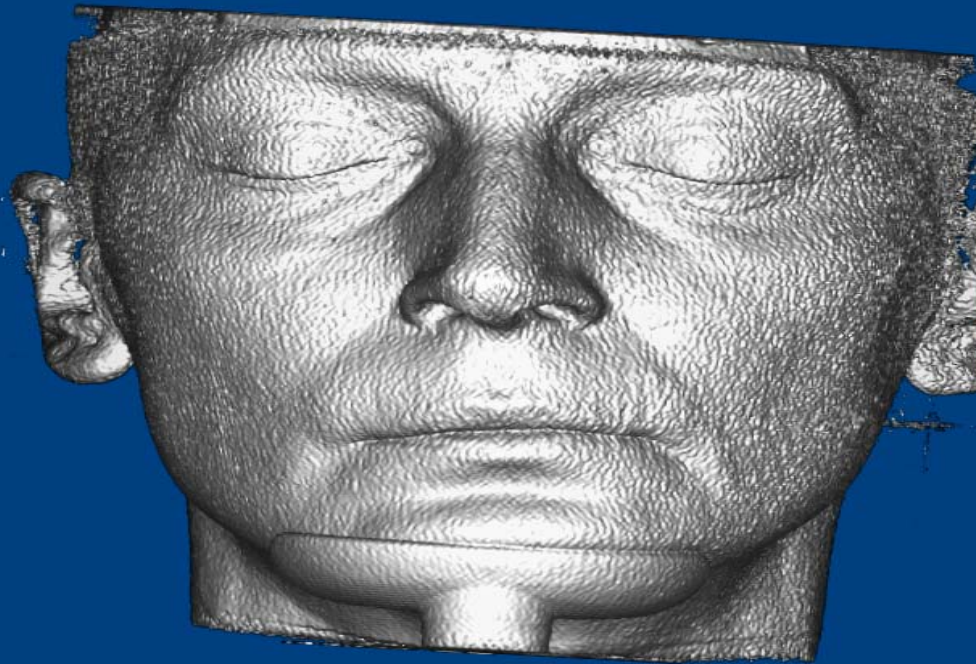




1 Month after Piezosurgery+Lingual System

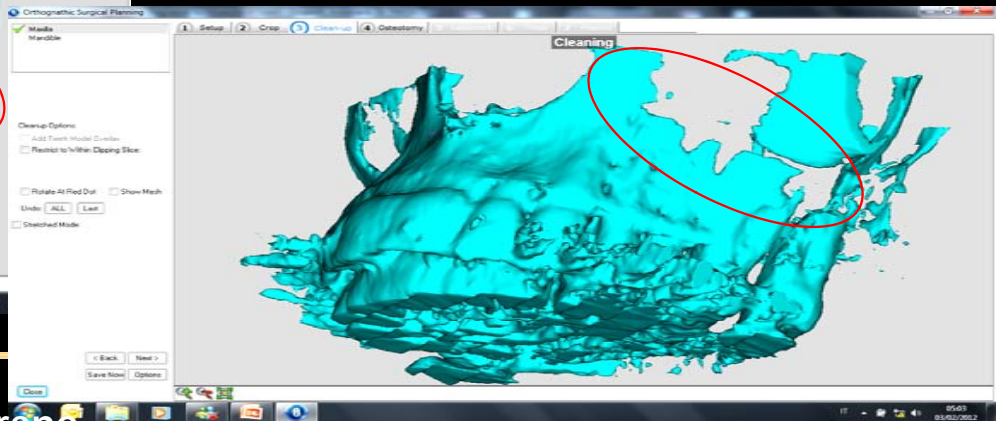
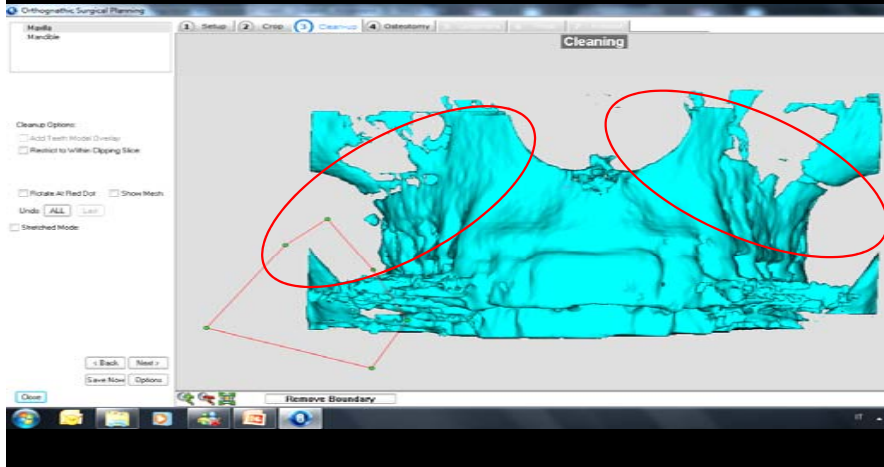
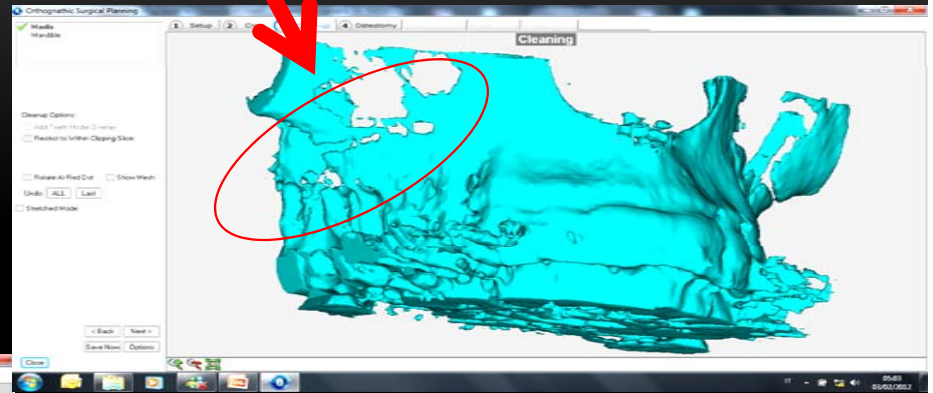
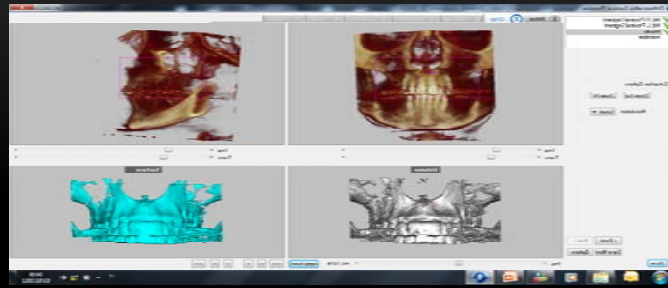


1 Month after Corticision First+Lingual System



1 Month after Corticision First+Lingual System

Bone reconstruction starts inside lateral cuts



Corticision performed from prof. A. Scarano

Orthognathic Surgical Planning

- 1 Setup
- 2 Crop
- 3 Clean-up
- 4 Osteotomy
- 5 Landmark
- 6 Treat
- 7 Present

Digitizing Options:

Add Soft Tissue Select...

Lip posture: Lips Closed

Show Original Volume:

Seg: ← →

Opc: ← →

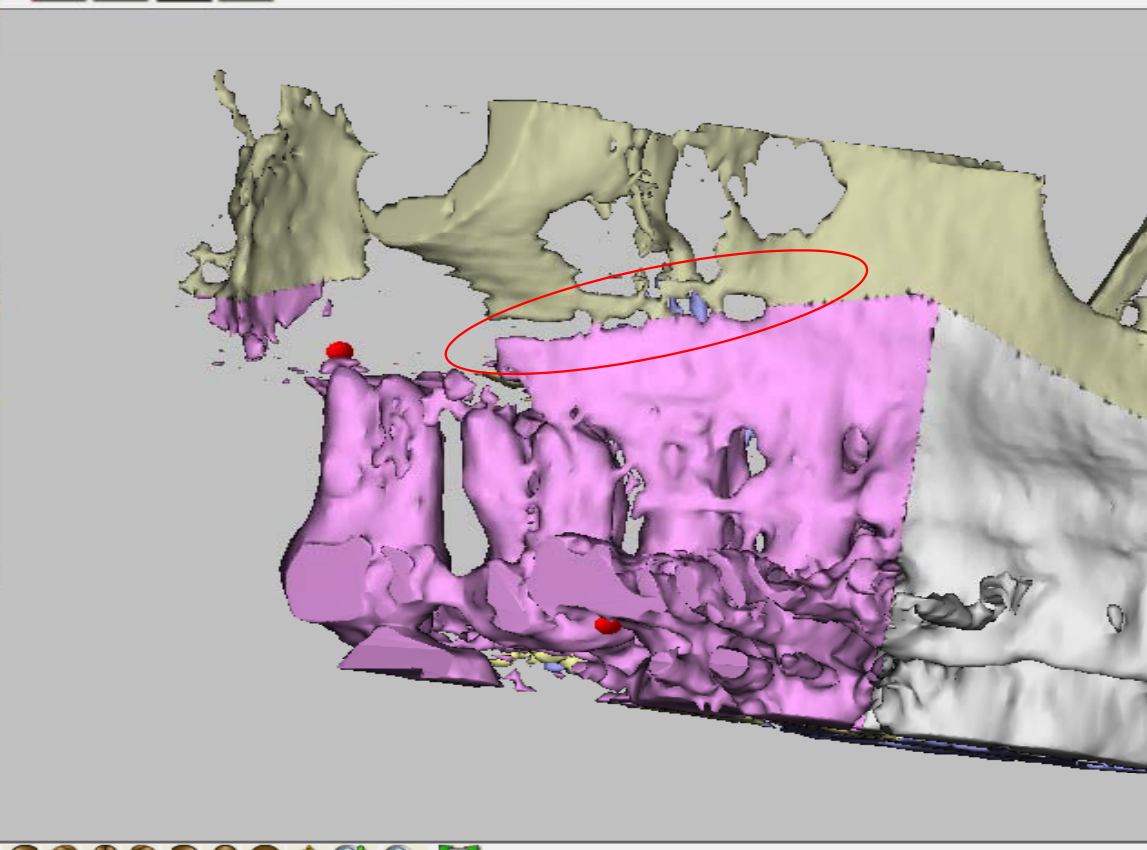
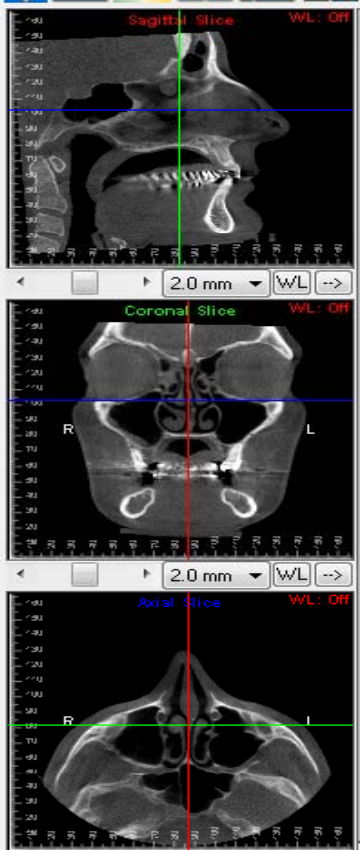
Digitize/Modify Landmarks On (Go To):

- Maxilla
- Mandible
- Facial Right
- Facial Left
- Facial Front

Orientation...

- < Back
- Next >
- Save Now
- Options

Close

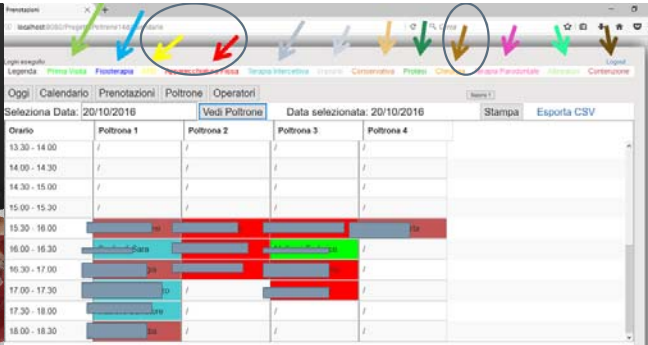
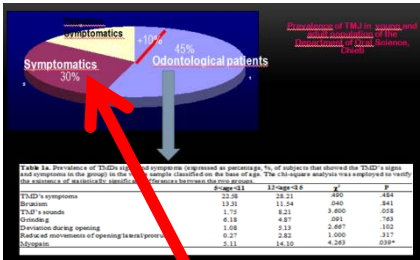


- **Terapia ortodontica 3D dell'ATM**
- **Terapia ortodontica 3D pre-chirurgica**
- **Terapia ortodontica dei casi complessi 3D**
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Genomic Anthropology applications to orthognatic surgery

PROF. G. IANNETTI
Dr. M. PAGNONI



Case 20 TMJ Extrarticular: Class III, severe Asymmetrical Long face syndrome, Passive Aligners + straight wire + virtual Splint + Orthognatic Surgery

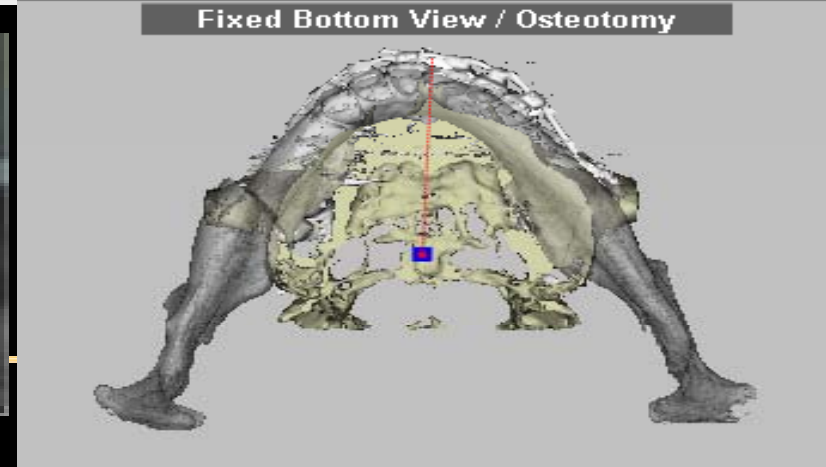
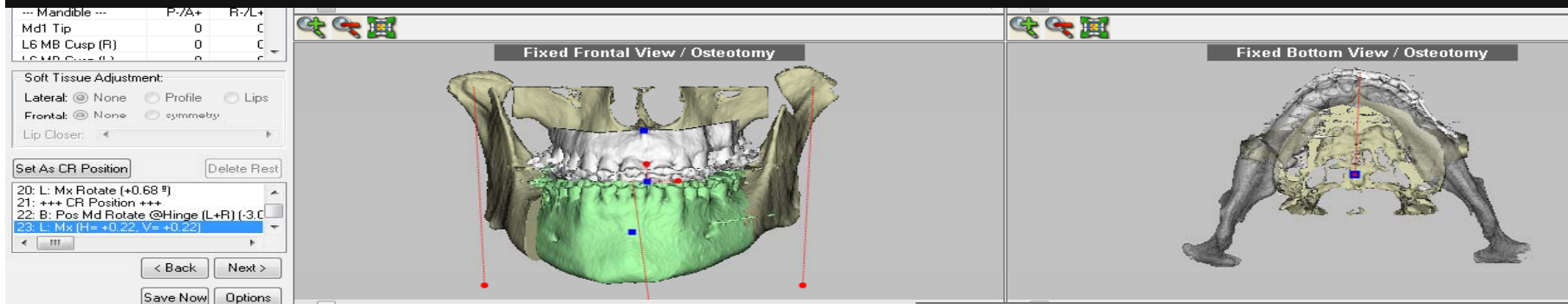
TMJ: Severe pain Temporalis Tendon L, Right Upper Trapezius

Age: 23 years 2 Months Passive Aligners 6 Months low-friction 12 Months retention Ppassive Aligners

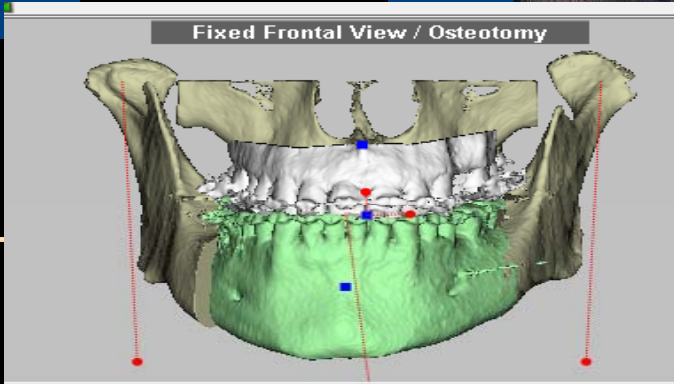
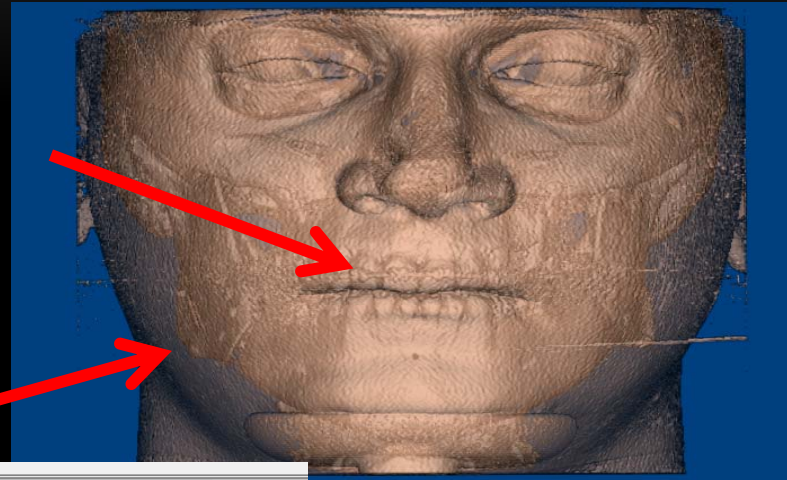
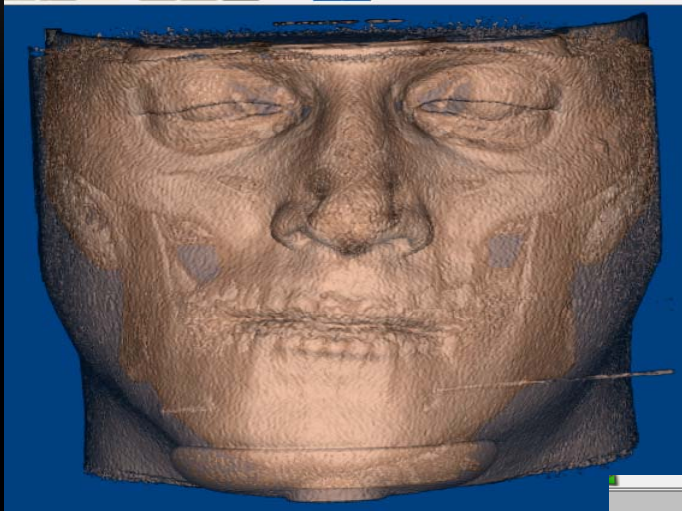
Surgical VTO for Virtual splint Upper
(mandibular traslation) and Lower (Maxillary
traslation) needed 29 VTO microadjustments to
adapt maxillo-mandibular asymmetry

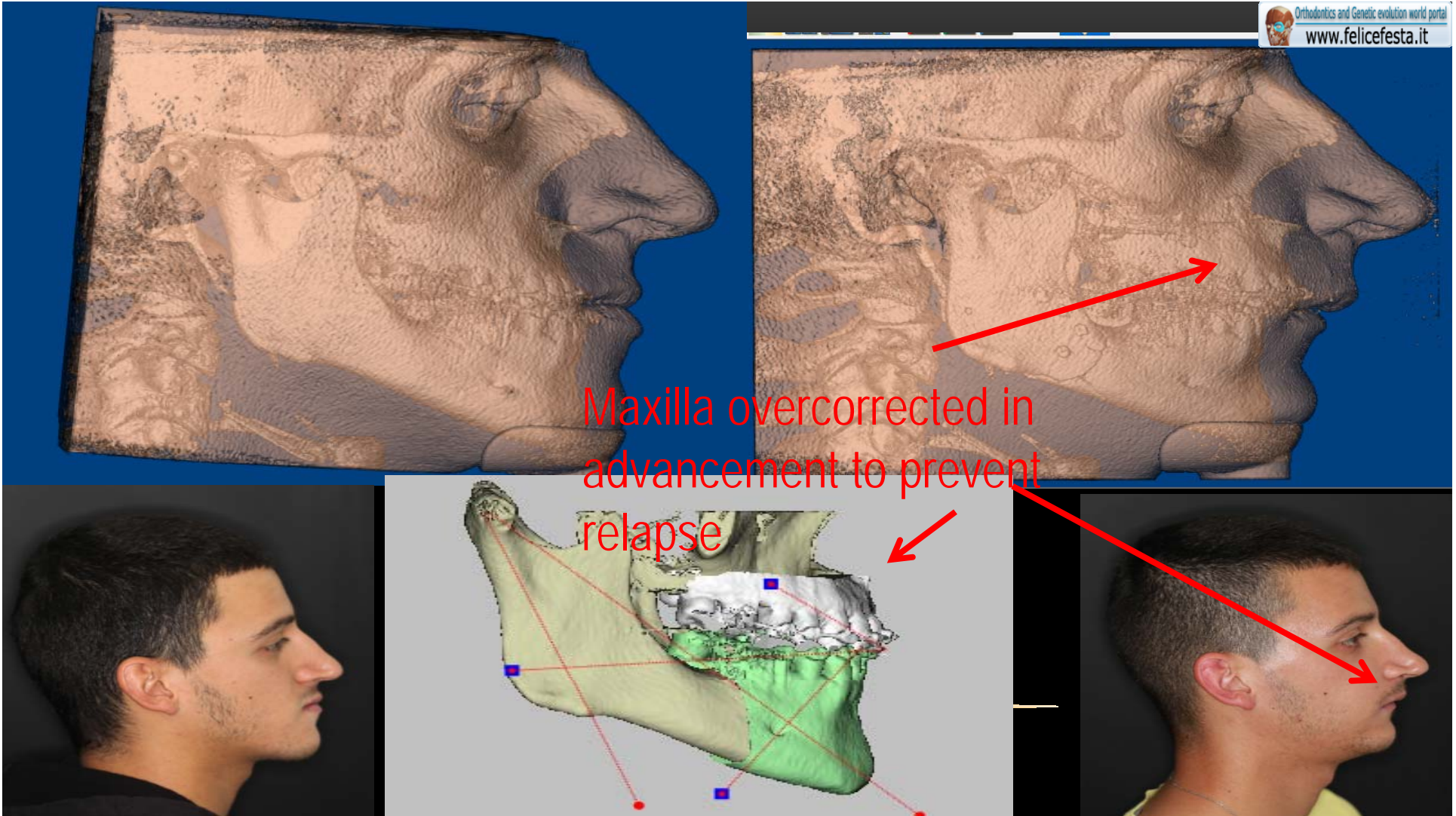


DOLPHIN 3D VTO > OPI



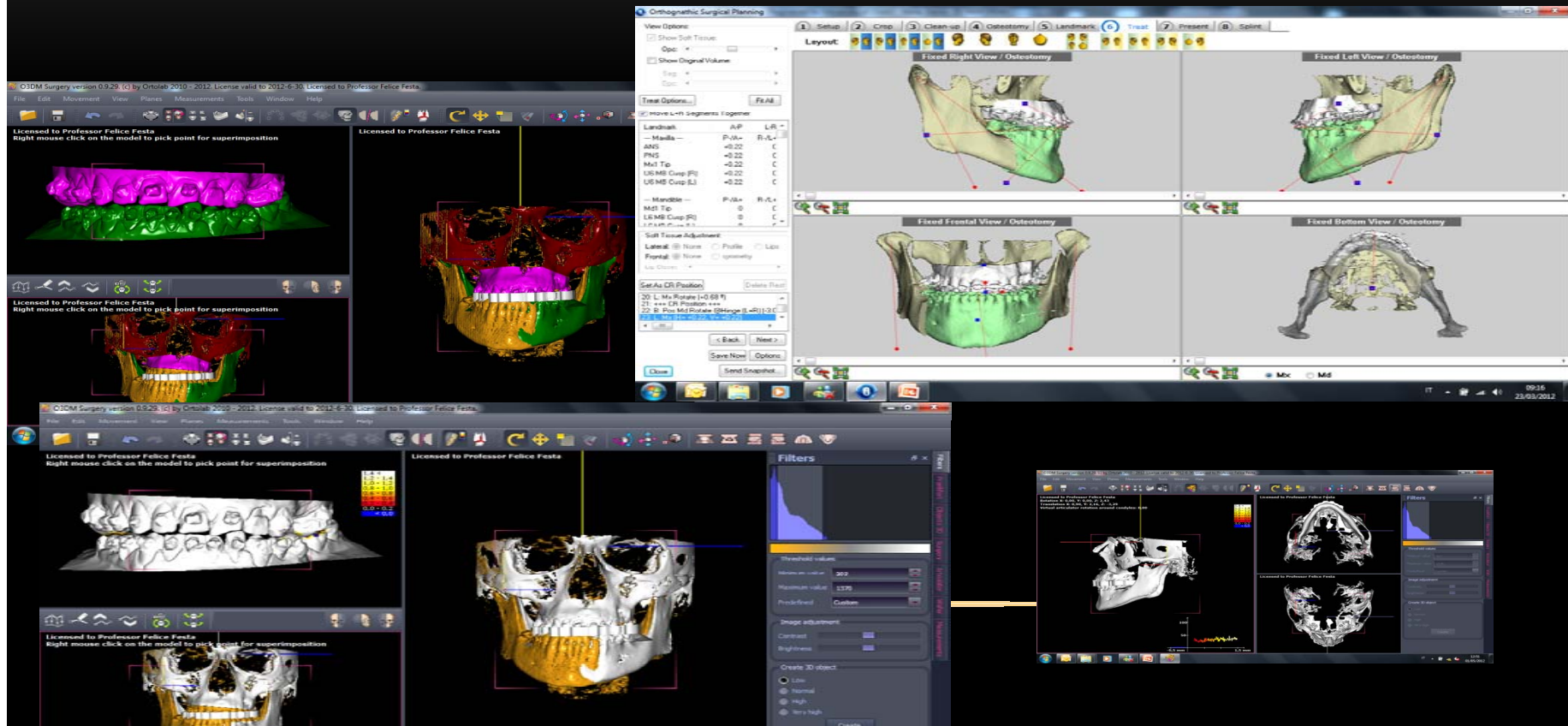
ORTHOGNATIC SURGERY PERFORMED FROM PROF. G. IANNETTI AND DR. MARIO PAGNONI





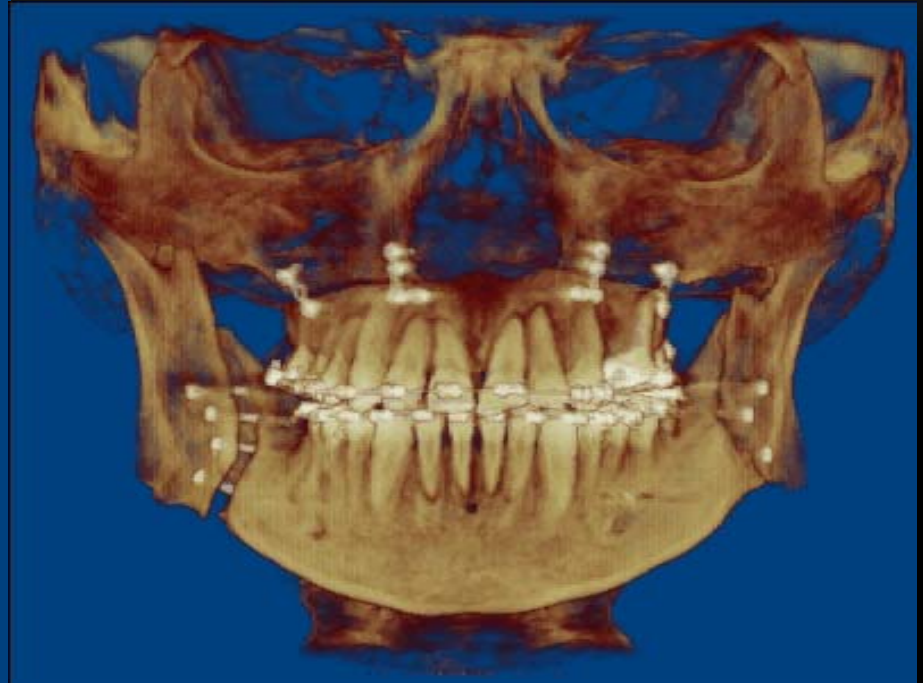
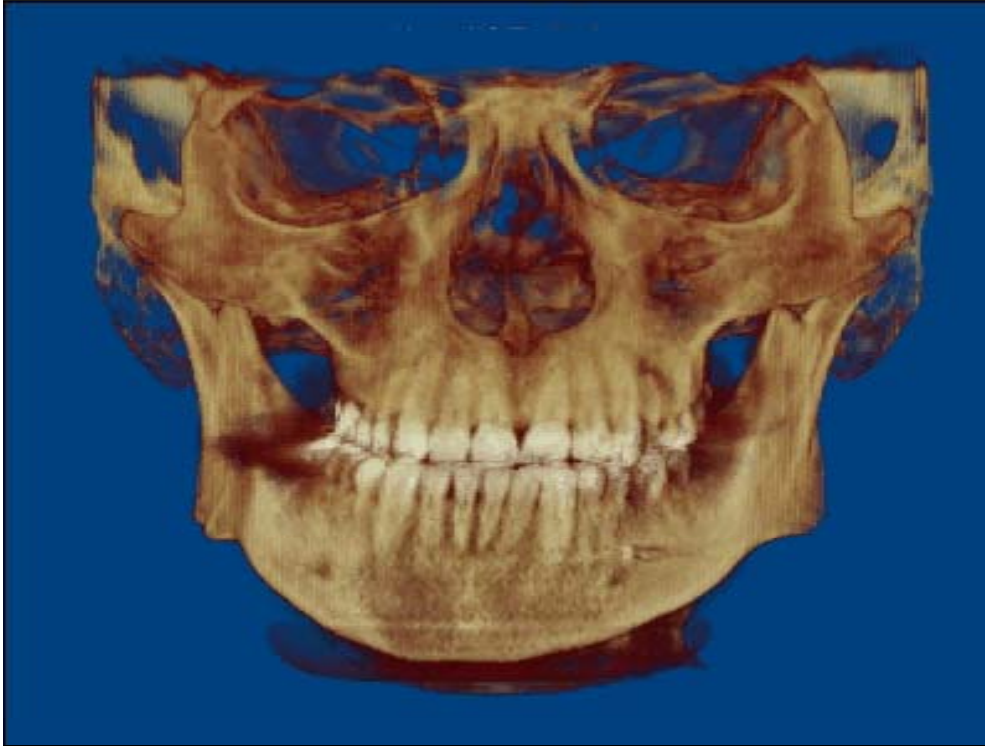
Maxilla overcorrected in advancement to prevent relapse

O3DM SOFTWARE (PL)+DOLPHIN BETA VERSION TO REALIZE VIRTUAL SPLINTS



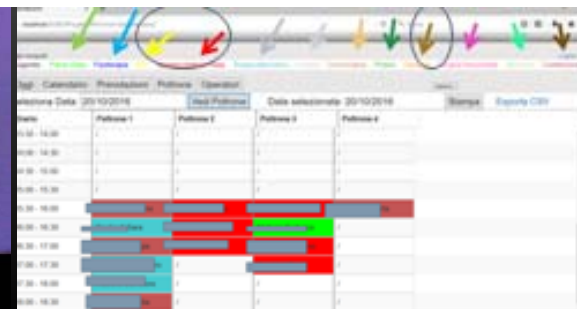
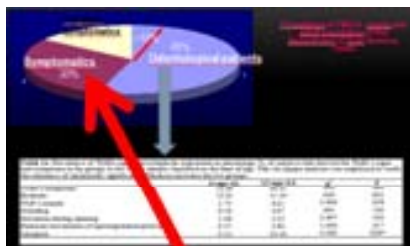
BEFORE

AFTER



- **Terapia ortodontica 3D dell'ATM**
- **Terapia ortodontica 3D pre-chirurgica**
- **Terapia ortodontica dei casi complessi 3D**
-





Case 26 TMJ intratrarticular: Caucasian Class II, severe Symmetrical short mandible, Surgery First + Straight wire+ virtual Splint + Orthognatic Surgery

TMJ: Bilateral reciprocal late clicking Severe pain
Temporalis Tendon R, Right Upper Trapezius

Age:28 years Surgery First + 6 Months straight-wire 12 Months retention Passive
 Aligners+ Tongue /spine exercises

23/11/2011



02/01/2012





17/02/2012



24/05/2012

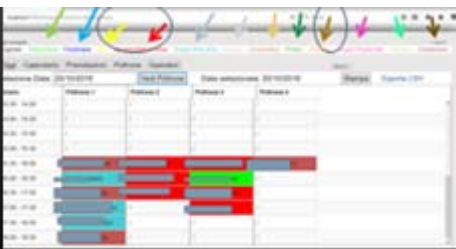
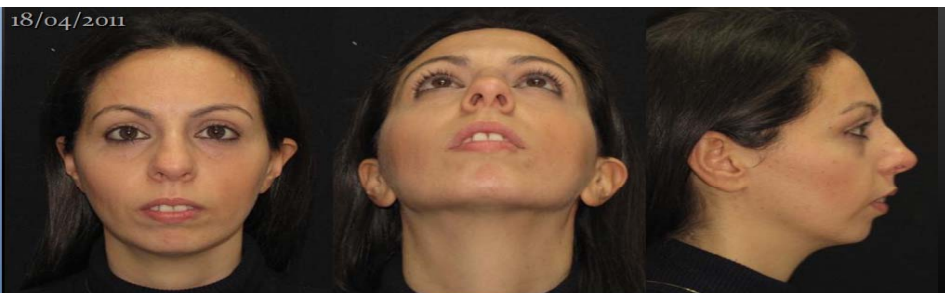
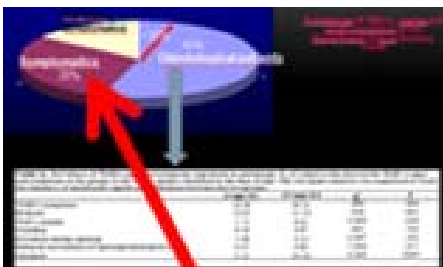


TMJ FOR THE ORTHODONTIST COURSE WORKFLOW

- Genomic Anthropology applications to orthodontics, head-neck-spine postural disorders etiopathogenesis and therapy protocols.
- Chieti-Moscow TMJ-orthodontics clinical chart odontological patients etiopathogenetic studies, low dose CBCT studies.
- TMJ patient work flow chart, face-neck muscles dissectional anatomy, face-neck trigger points.
- First step: intraarticular TMJ dysfunction diagnosis/treatment, Extraarticular TMJ dysfunction diagnosis/treatment. 3D diagnosis, intraoral scanners. Clicking and locking diagnosis, physical therapy-osteopathy.
- Second step: Functional therapy and appliances, Frankel lab protocols, Frankel therapy. _____
- Strategy of orthodontist during treatment of adults and young patients with TMJ dysfunction, miniscrews, SLLF with OPI arch form, piezosurgery,

- **Terapia ortodontica 3D dell'ATM**
- **Terapia ortodontica 3D pre-chirurgica**
- **Terapia ortodontica dei casi complessi 3D**
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Orthodontics and Genetic evolution world portal
www.felicefesta.it

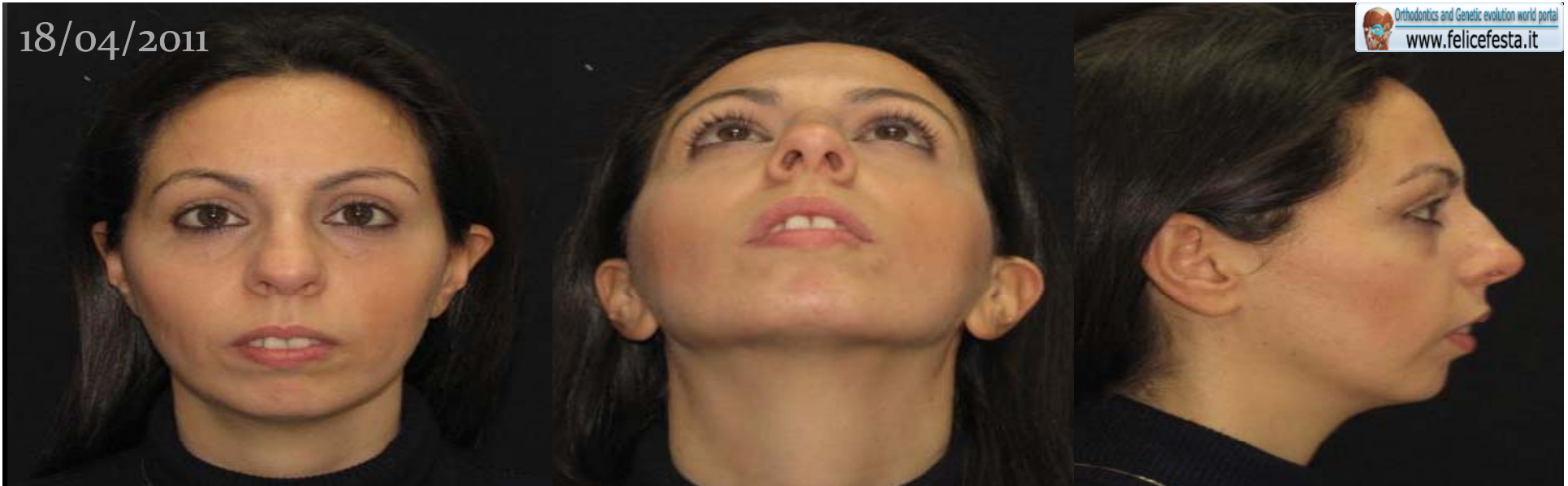
Case 27 TMJ Extratratricular: TMJ Intra/Extraarticular Caucasian Class II, severe Symmetrical short mandible, Bilateral posterior maxilla contraction, Surgery First + Damon 3 + virtual Splint + Orthognatic Surgery

TMJ: Bilateral reciprocal late clicking Severe pain

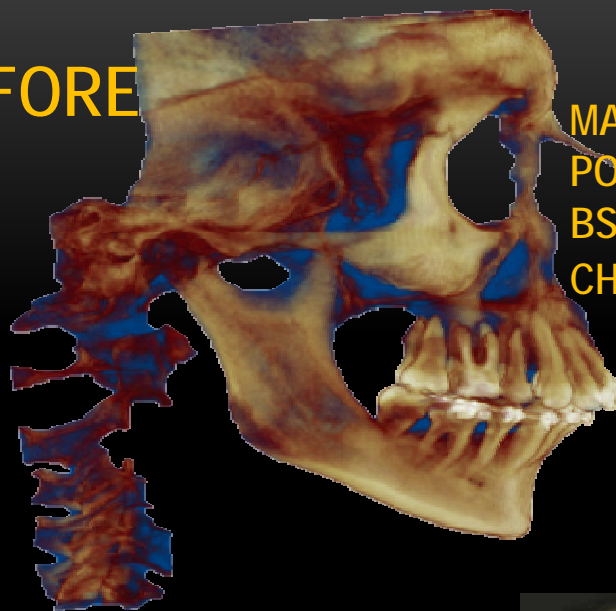
Temporalis Tendon L, Right Upper Trapezius

Age:33 years Surgery First + 6 Months self ligating low friction to expand maxilla posteriorly 12 Months retention Passive Aligners+ Tongue /spine exercises

18/04/2011

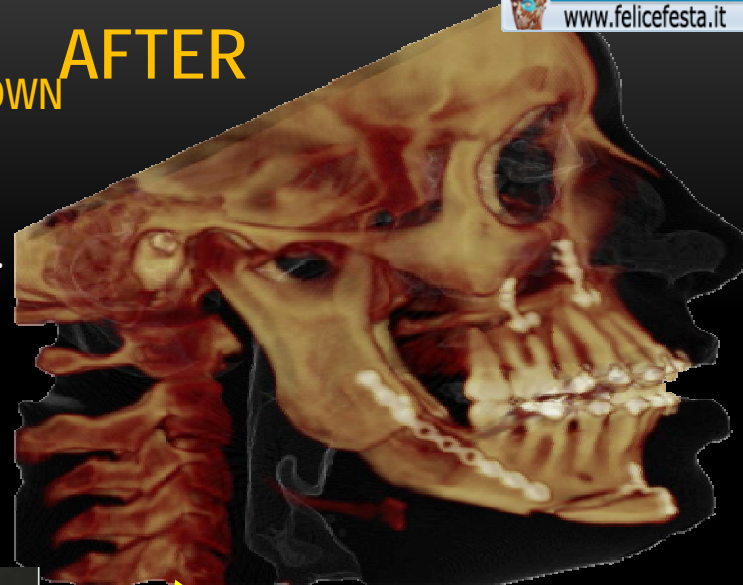


BEFORE



MAXILLA BODILY 3 MM. DOWN
POSTERIOR DOWN 6 MM.
BSSO 15 MM.
CHIN ADVANCEMENT 8MM.

AFTER



COMPLETELY
REVERSE
CERVICAL SPINE

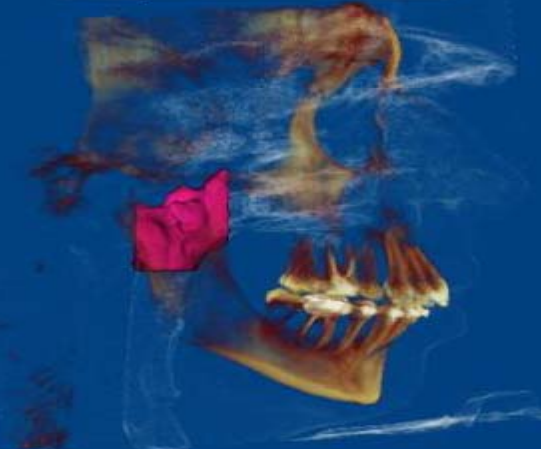


COMPLETELY
RESTORED
CERVICAL SPINE

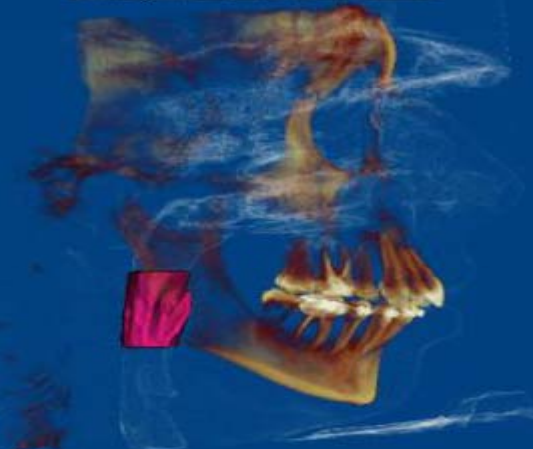
17/12/2011



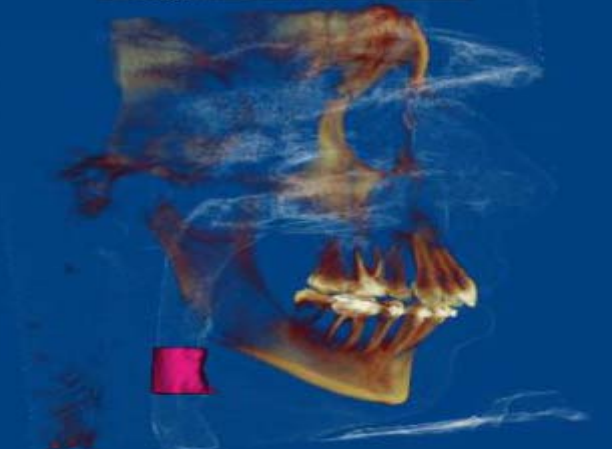
Airway Volume = 14507.1 mm³



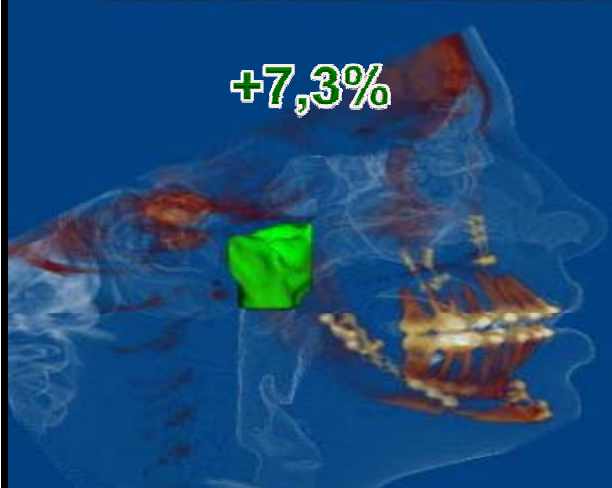
Airway Volume = 9639.0 mm³



Airway Volume = 4502.5 mm³



Airway Volume = 15567.4 mm³



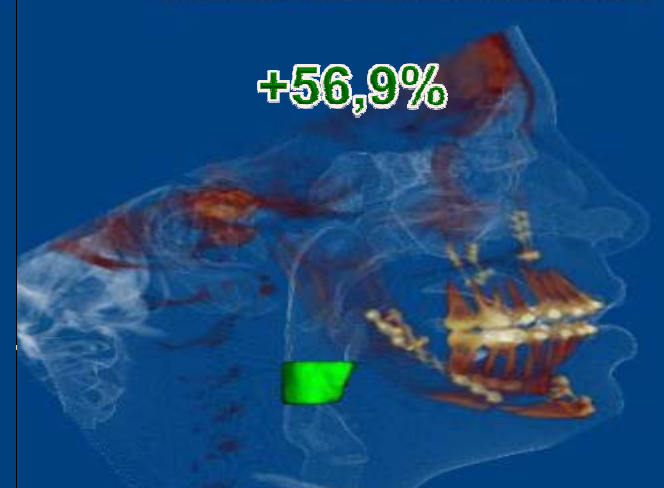
+7,3%

Airway Volume = 12727.9 mm³



+32,1%

Airway Volume = 7067.4 mm³



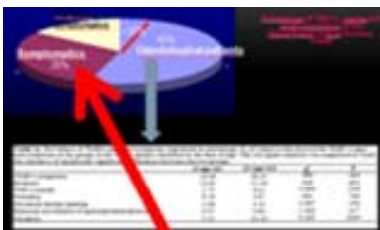
+56,9%

APPLICAZIONI DEL 3D IN ODONTOIATRIA

- GENETICA
- IMPLANTOPROTESI
- GNATOLOGIA
- CHIRURGIA ORALE
- ORTOGNATODONZIA
- ATM E FISIOTERAPIA
- CHIRURGIA MAXILLO-FACCIALE
- CONEBEAM BASSO DOSAGGIO

- Terapia ortodontica 3D dell'ATM
- Terapia ortodontica 3D pre-chirurgica
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-



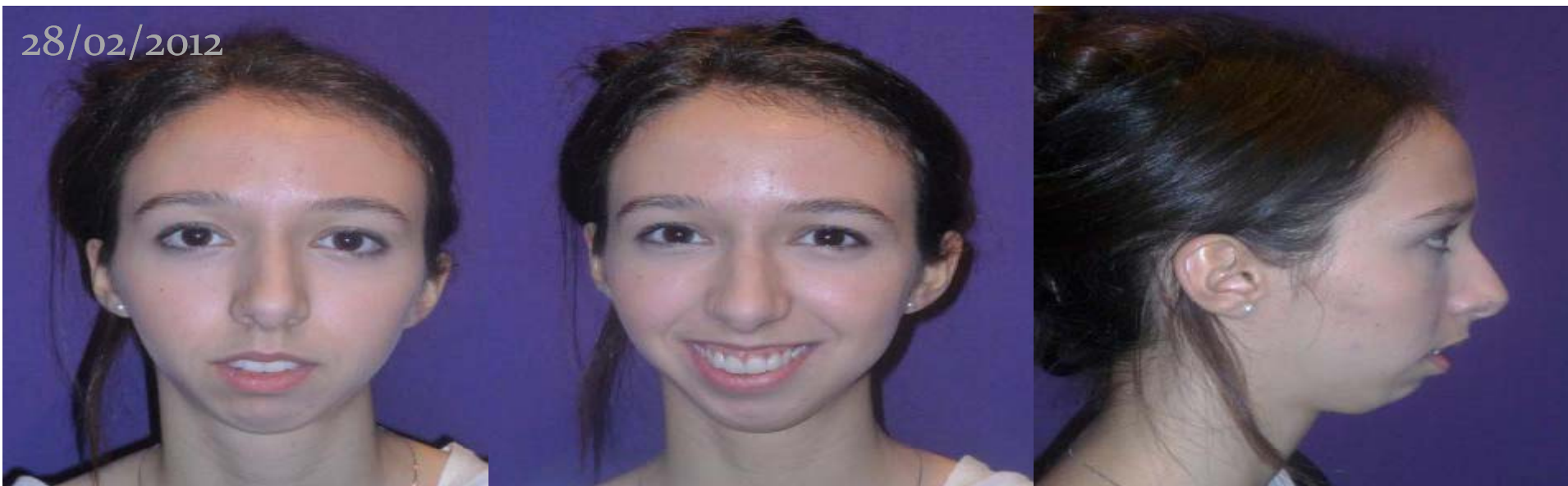


Case 28 TMJ Intrarticular: Caucasian Class II, severe Symmetrical short mandible, Condylar reumatoid Arthritis, Severe Dolichofacial, Surgery First + Straight wire+ virtual Splint + Orthognatic Surgery

TMJ: Bilateral reciprocal late clicking Severe pain
External Upper Pterygoid Tendon L, Right Upper
Trapezius

Age:28 years Surgery First + 6 Months straight-wire 12 Months retention Passive
Aligners+ Tongue /spine exercises

28/02/2012

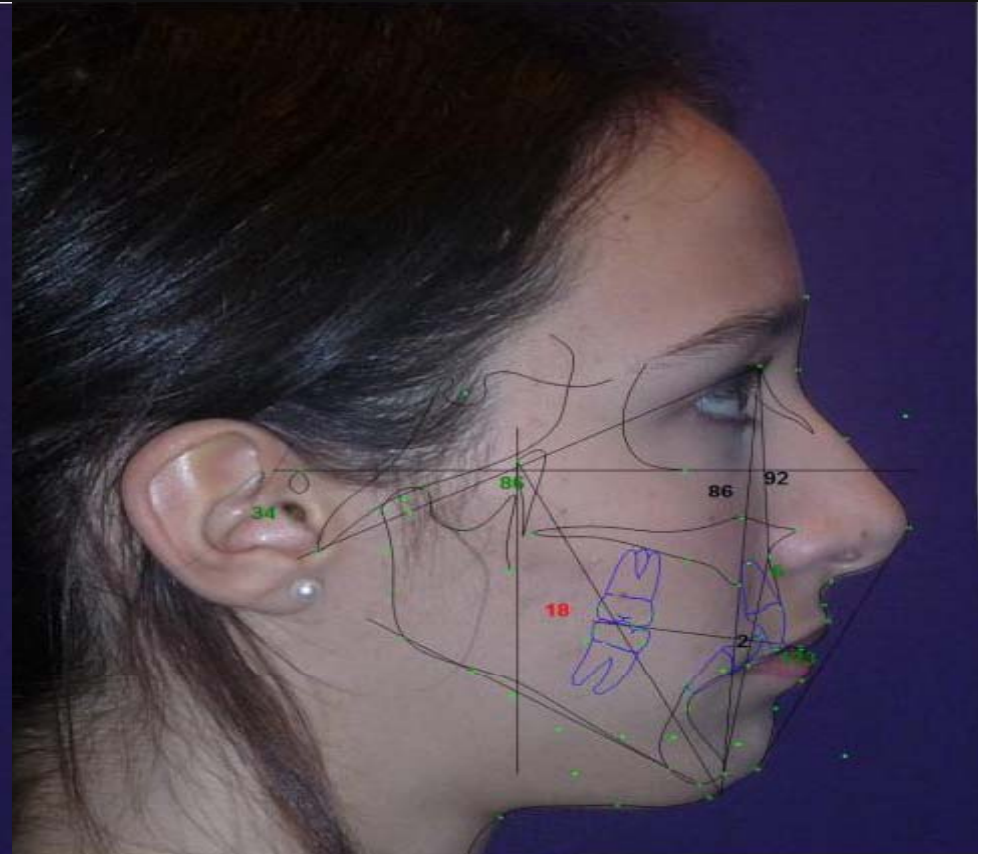
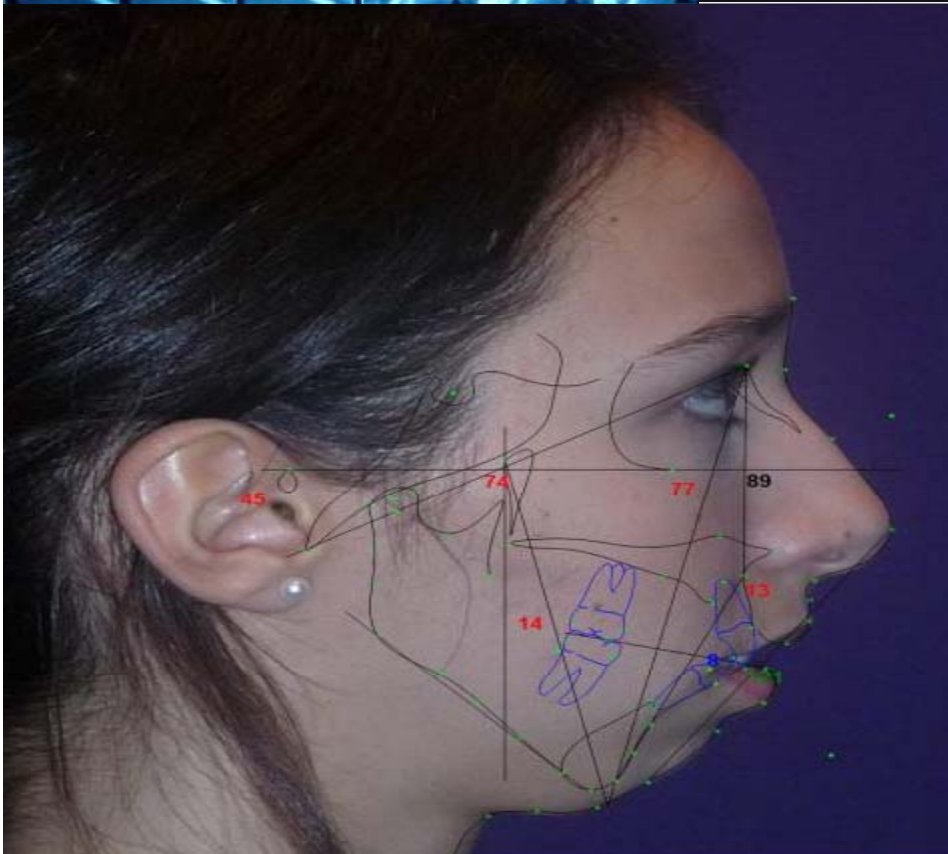
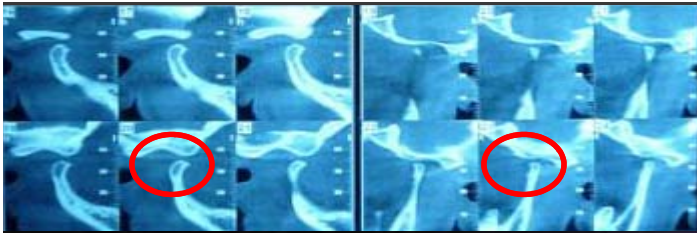


**CONDYLAR REUMATOID ARTRITIS
RIGHT CLASS II**

**SEVERE DOLICOFACIAL
GUMMY SMILE**



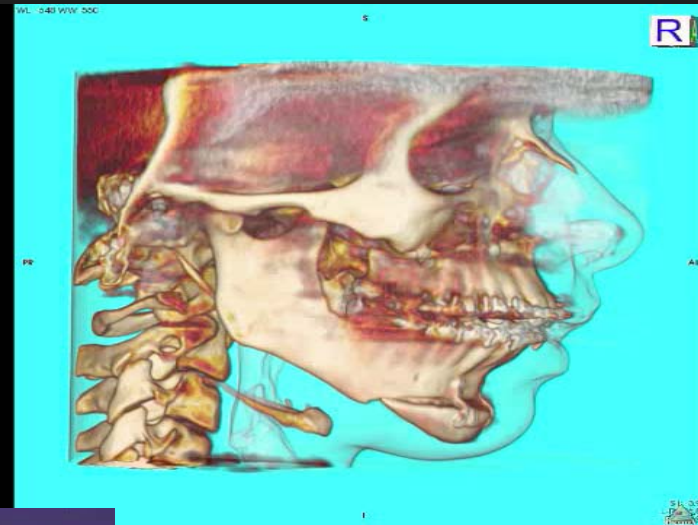
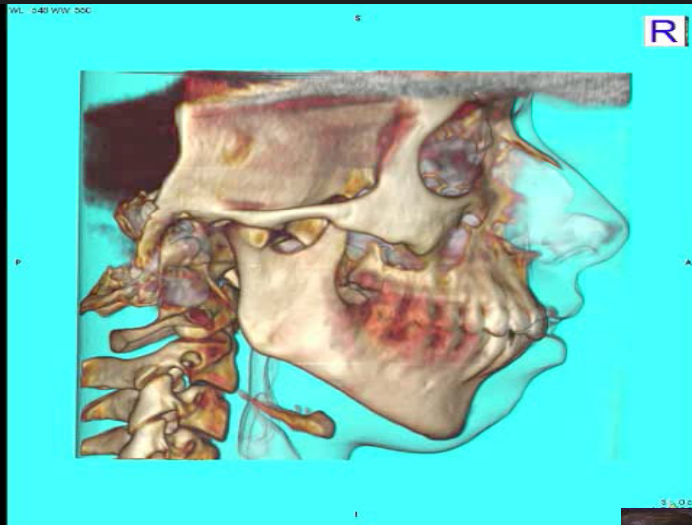
LE FORT I & CHIN SURGERY DOLPHIN 2D SIMULATION



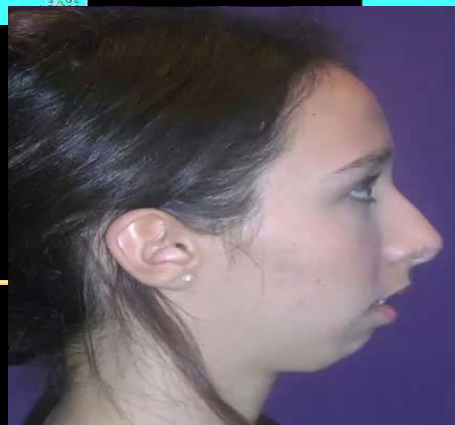
12/03/2012



LE FORT I & GENIOPLASTY VTO SIMULATION



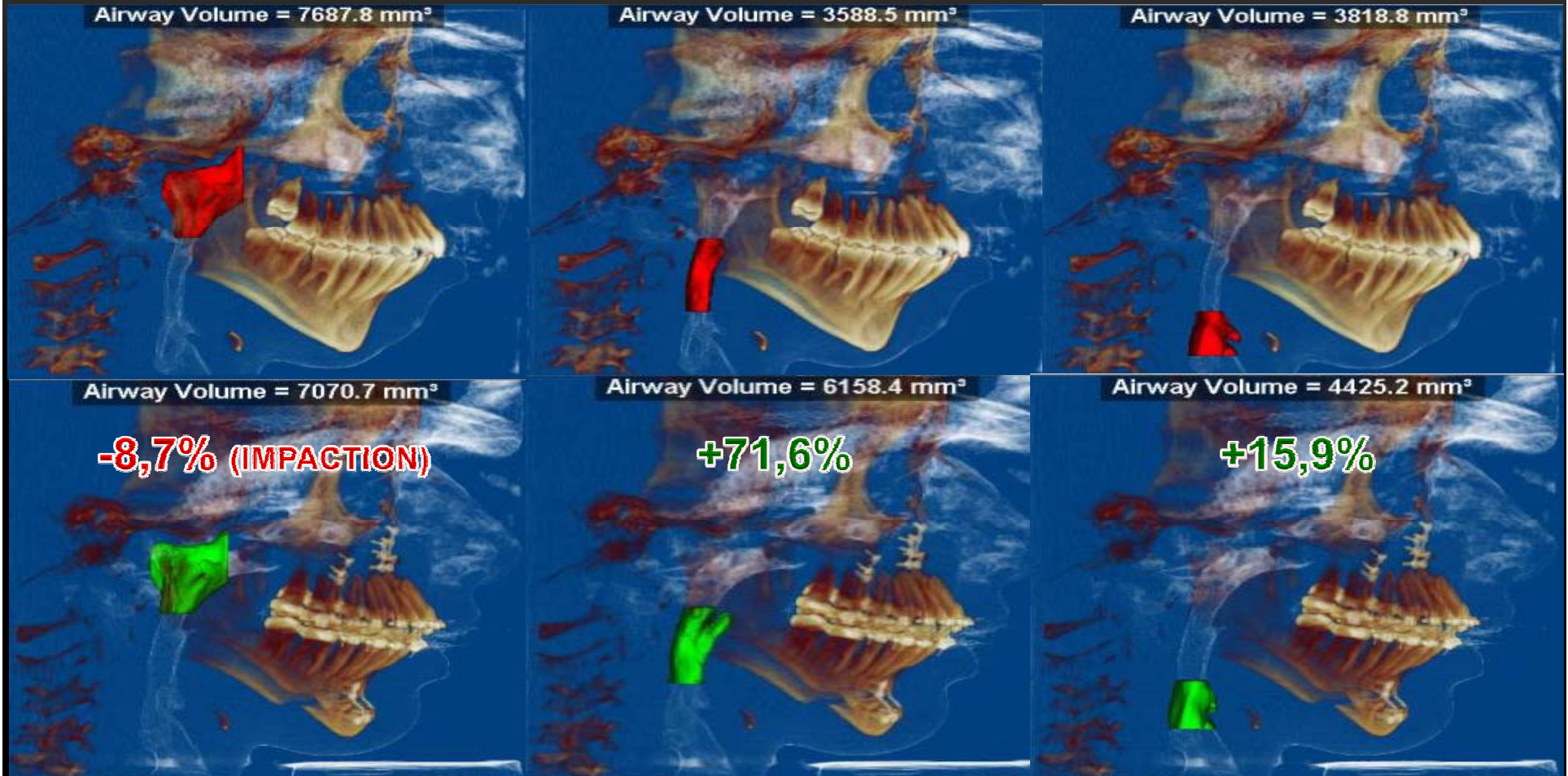
PRE



POST

11/05/2012





APPLICAZIONI DEL 3D IN ODONTOIATRIA

- GENETICA
- IMPLANTOPROTESI
- GNATOLOGIA
- CHIRURGIA ORALE
- ORTOGNATODONZIA
- ATM E FISIOTERAPIA
- CHIRURGIA MAXILLO-FACCIALE
- CONEBEAM BASSO DOSAGGIO

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