

Prosthodontic Full Mouth Reconstruction of a Trauma Patient: Case Presentation

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Objectives

1. Treatment plan considerations for edentulous patients
2. Options for rehabilitation
3. Definition and indications of fixed implant retained
Hybrid prosthesis
4. Case presentation

Treatment Plan Considerations for Edentulous Patients



- Medical Hx
- Dental Hx
- Intraoral/Extraoral Examination
- Radiographic Records
- Diagnostic Models
- Pictures

Factors that Determine Restoration Type

- Arches size and relationship
- Amount of Inter-arch space
- Residual ridges size and shape
- Lip support, mobility, upper and lower lip line
- Esthetic demand

Prosthetic Options

- Removable Muco-supported
- Removable Implant Retained Muco-supported (overdenture)
- Fixed Implant Supported Bridge
- Fixed Implant Supported Hybrid Appliance



Fixed implant supported Hybrid appliance

Implant retained prosthesis that replaces teeth and soft tissues. Made of metal framework with acrylic, zirconia framework with porcelain, monolithic zirconia or trinia.



Fixed Implant Supported Hybrid Appliance

INDICATIONS

- Totally or partially edentulous
- Implant misalignment
- Decreased lip support
- High smile line
- Esthetic demands

Fixed Implant Supported Hybrid Appliance

• Advantages

- Reduce the impact force of occlusal loads
- Improve retention and stability
- Highly esthetic
- Close to natural feel

• Disadvantages

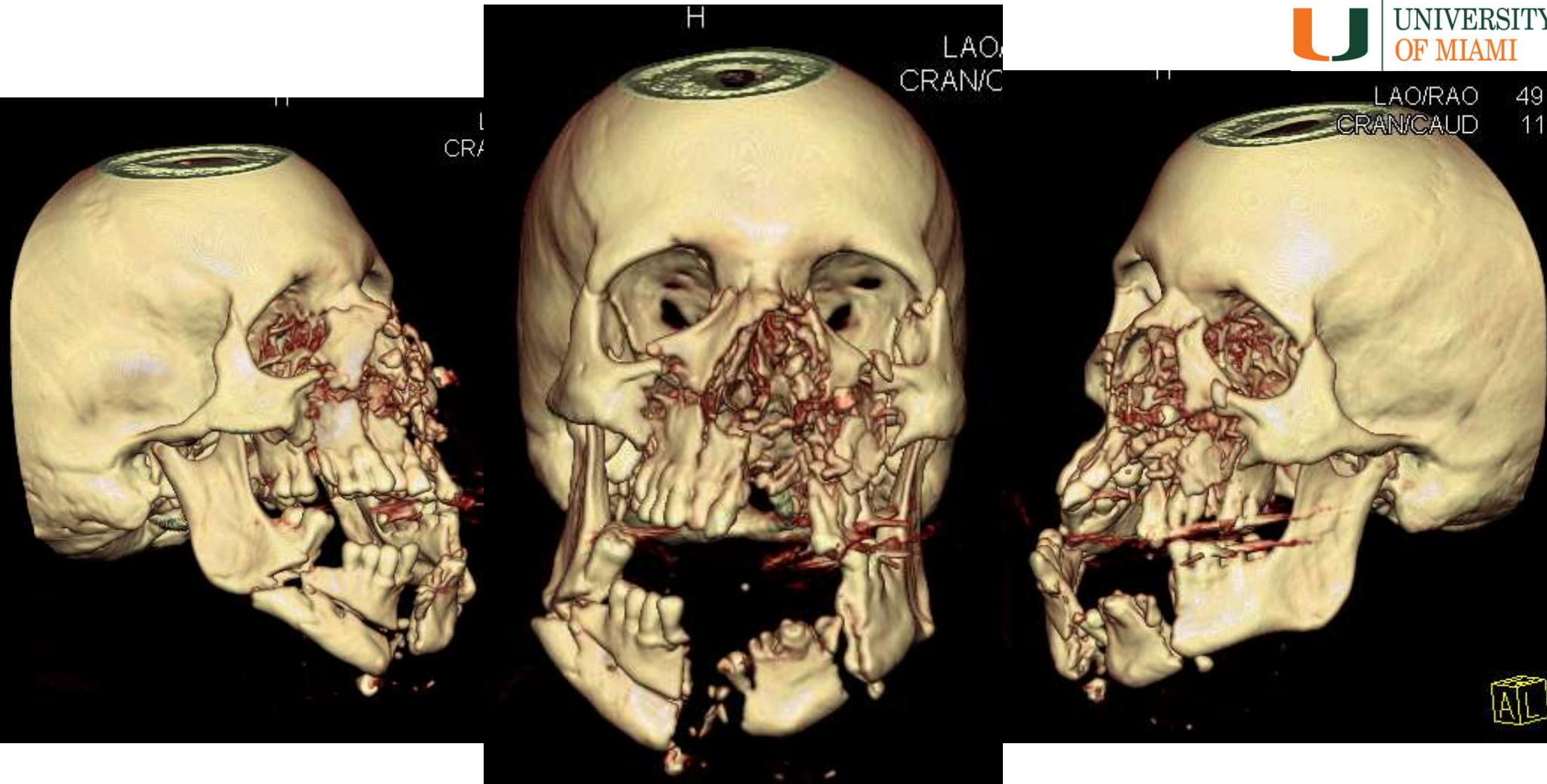
- Long-term maintenance problems due to potential for screws loosening
- Hygiene problems on the maxillary anterior area, because of the design close to the soft tissue to improve phonetics.
- Cost involved with procedure

Case presentation



ASA I

- 48 y/o male s/p GSW to face on 9/10/16 sustaining a comminuted panfacial fracture.
- The patient underwent primary reconstruction of facial complex, then reconstruction of maxilla using osteocutaneous fibula free flap, reconstruction of mandible using osteocutaneous Iliac free flap (DCIA), rhinoplasty, vestibuloplasty, dental implant surgery.
- **Dx:** Major osseous defect of mandible and maxilla
 - Soft tissue deficiency
 - Partially edentulous



Hard tissue Damage SEPT 2016

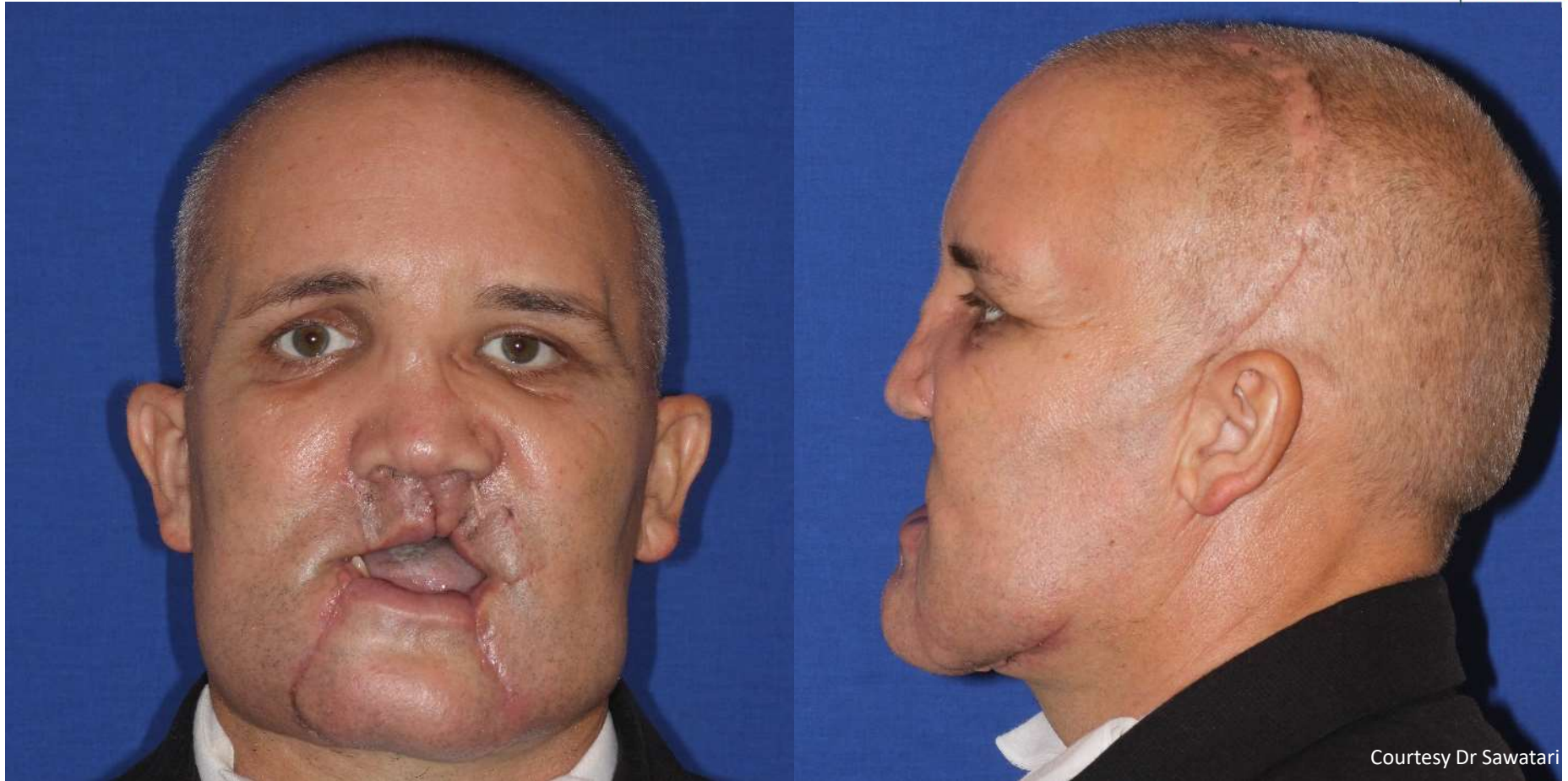
Courtesy Dr Sawatari





Soft tissue Damage SEP 2016

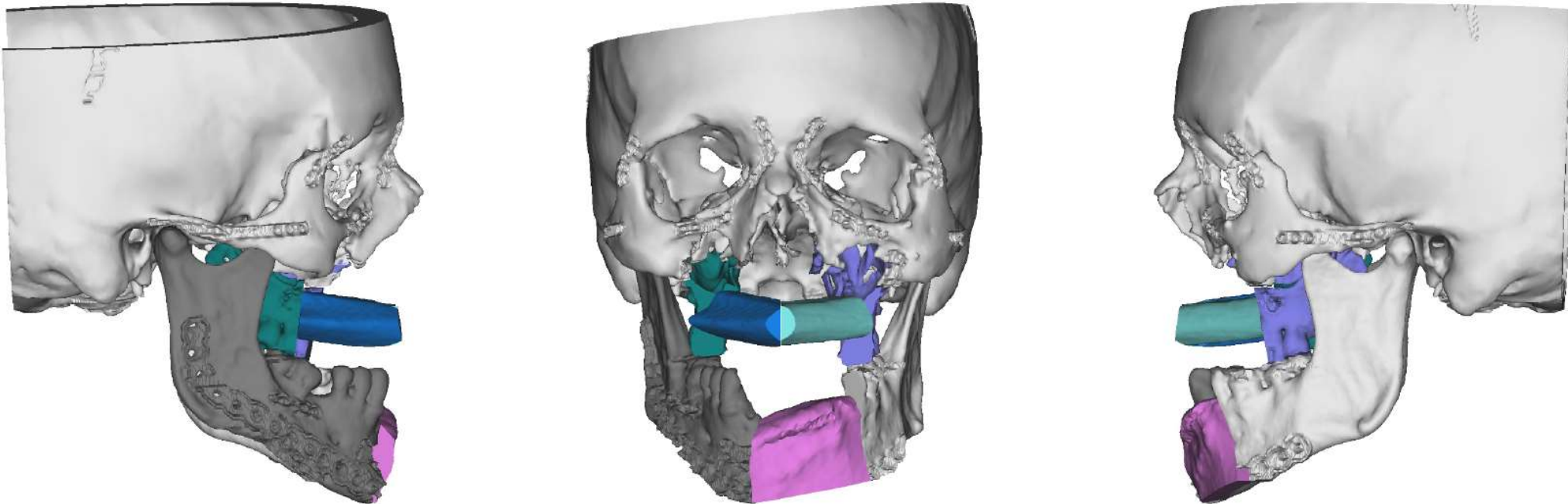
Courtesy Dr Sawatari



Courtesy Dr Sawatari

After Primary reconstruction of the facial complex JAN 2017

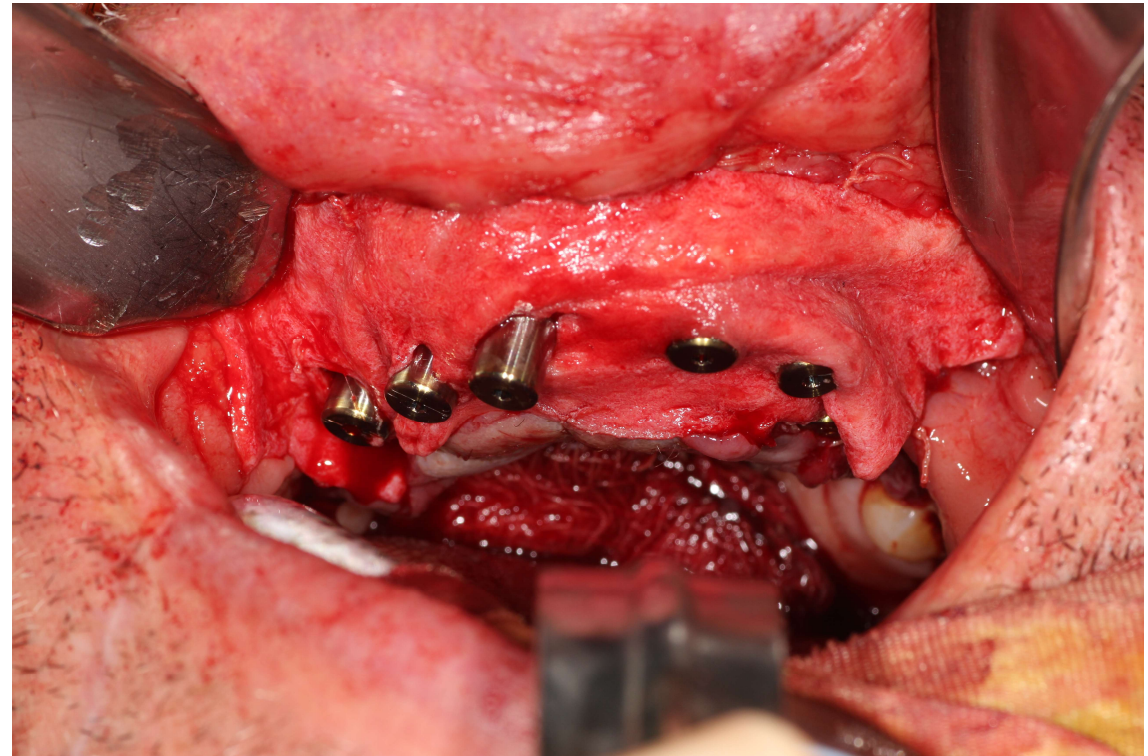
Simulated Postoperative Anatomy



VSP of the bilateral anterior mandible and maxilla

Courtesy Dr Tursun

Reconstruction of bilateral maxilla.



Second stage after placement of 6 upper and 6 lower NBC dental implants into the reconstructed maxilla and mandible.

Courtesy Dr Tursun

Initial Prosthetic Visit

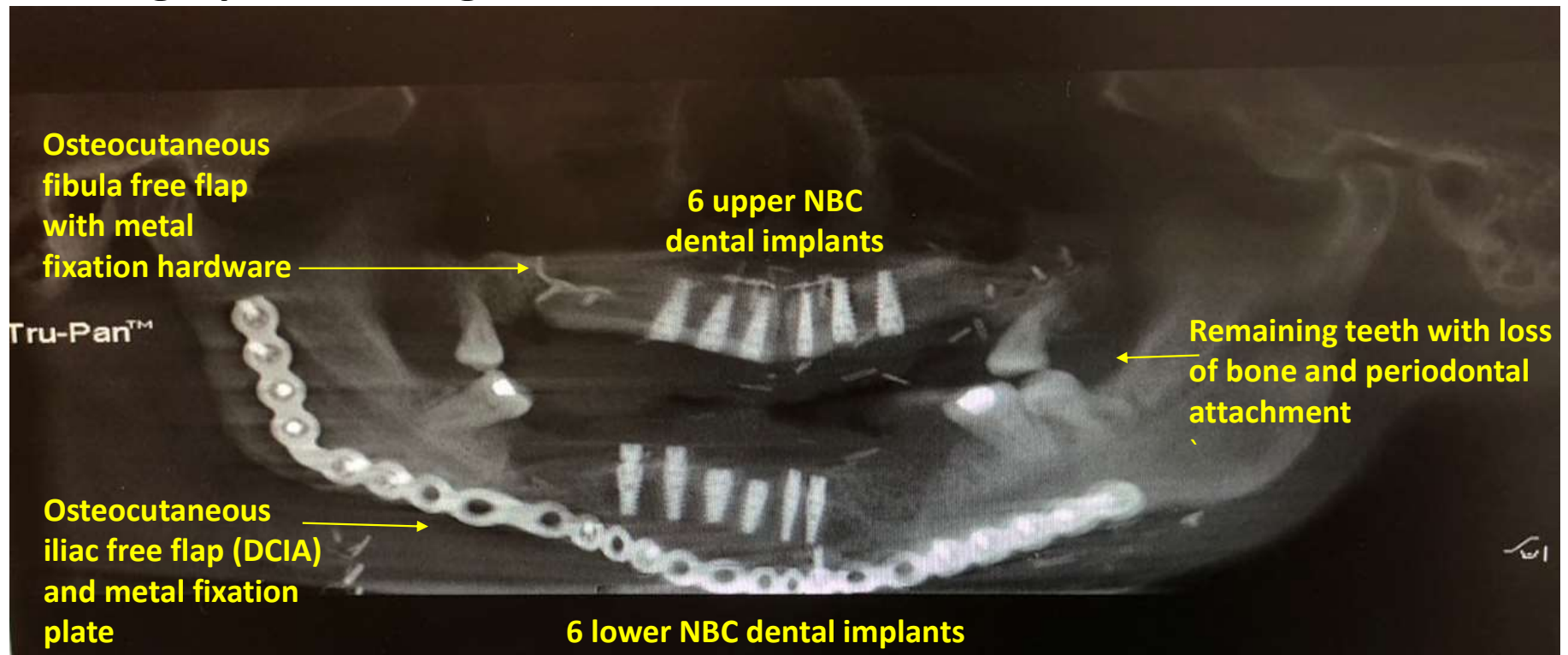
NOV 2017

Clinical findings:

Reduced mouth opening and intra-arch space
Limited or none upper and lower vestibular space
Remaining teeth in the unstable occlusal position
Lips and tongue with reduced mobility due to scar tissue



Radiographic Findings:



Fixed Implant supported screw retained Hybrid upper and lower prosthesis

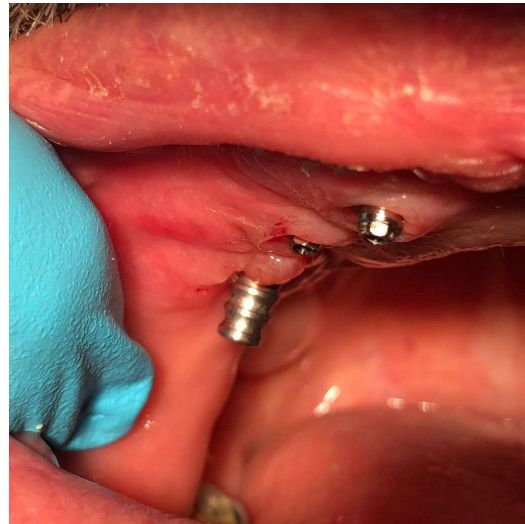
Prosthetic rehabilitation sequence:

1. Final impression
2. Jaw relation records
3. Teeth and metal framework try-in
4. Delivery

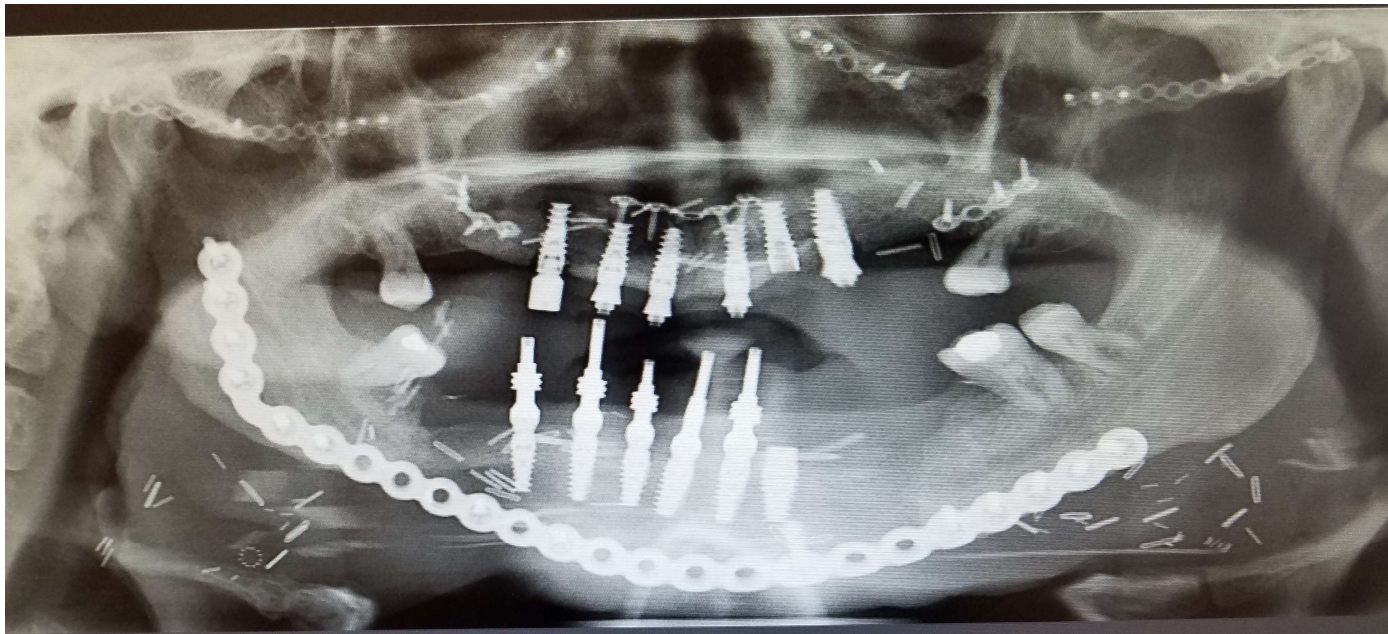
Start Treatment Plan

DIC 2017

- Delivered multi unit abutments
- Final impression at the MUA level to fabricate final working models



X-ray Verification



Upper impression with closed tray transfer copings

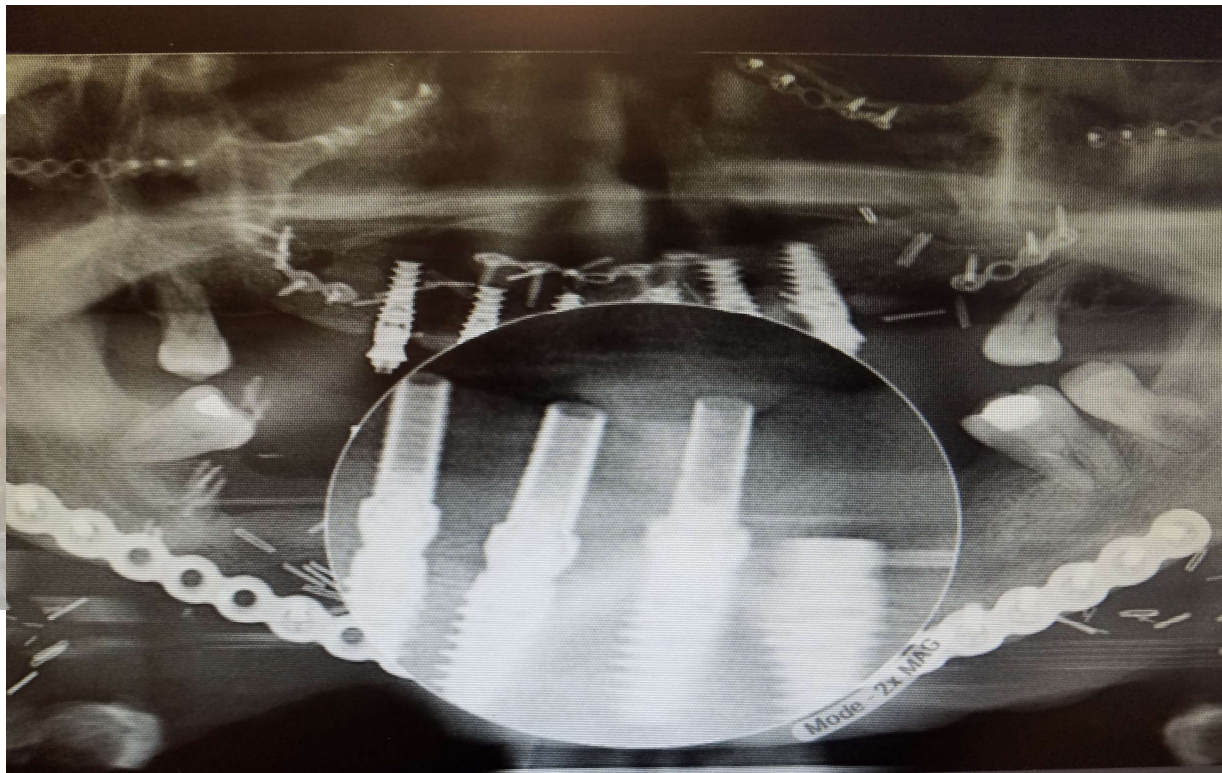


Lower impression with open tray transfer copings



DEC 2017

Verification jig



DEC 2017

Bite Registration



FEB 2018

Metal structure and teeth in wax try-in



FEB 2018

Delivery of upper and lower Fixed implant screw retained hybrid prosthesis

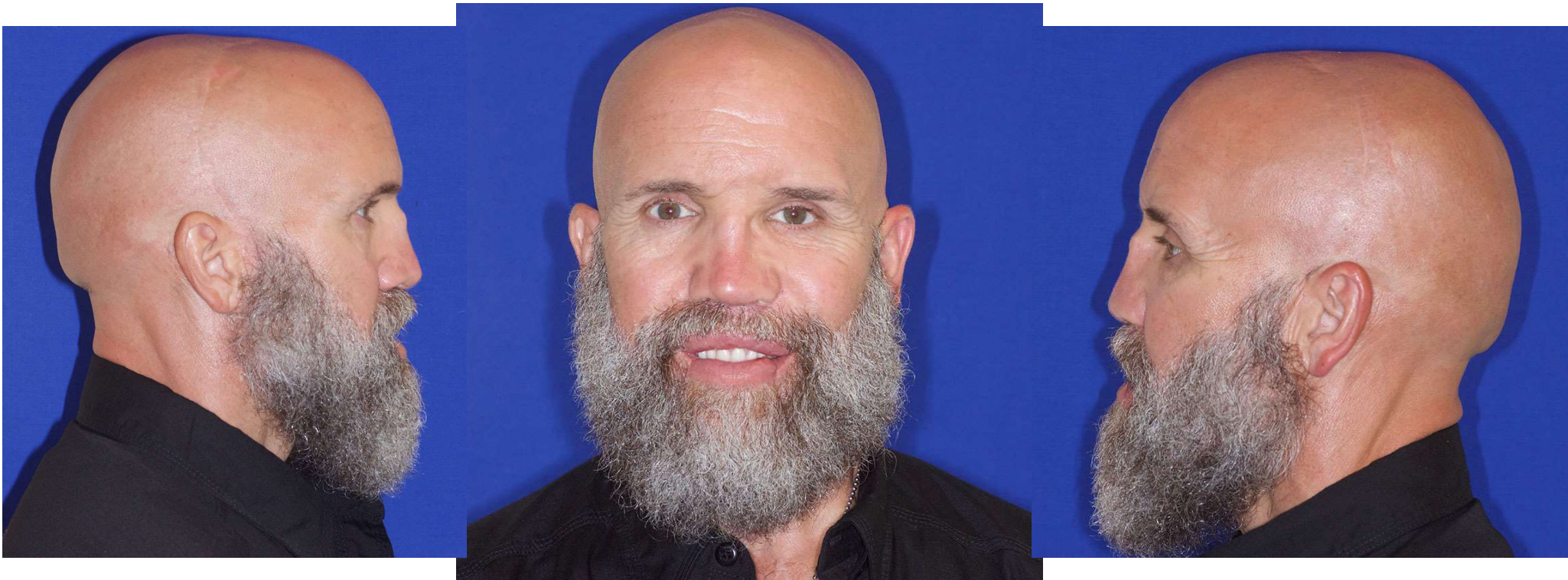




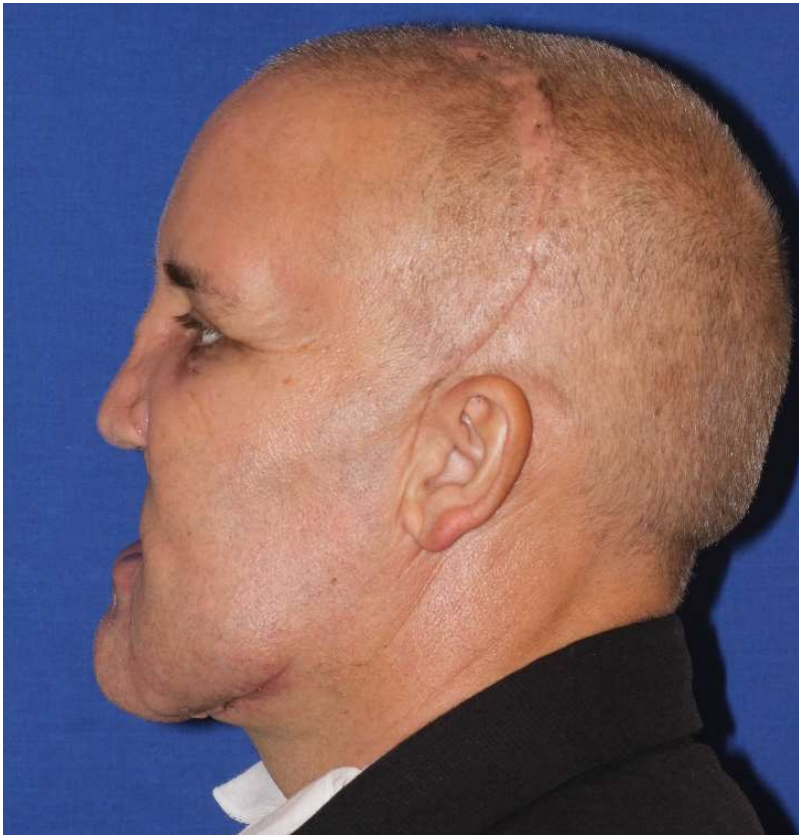
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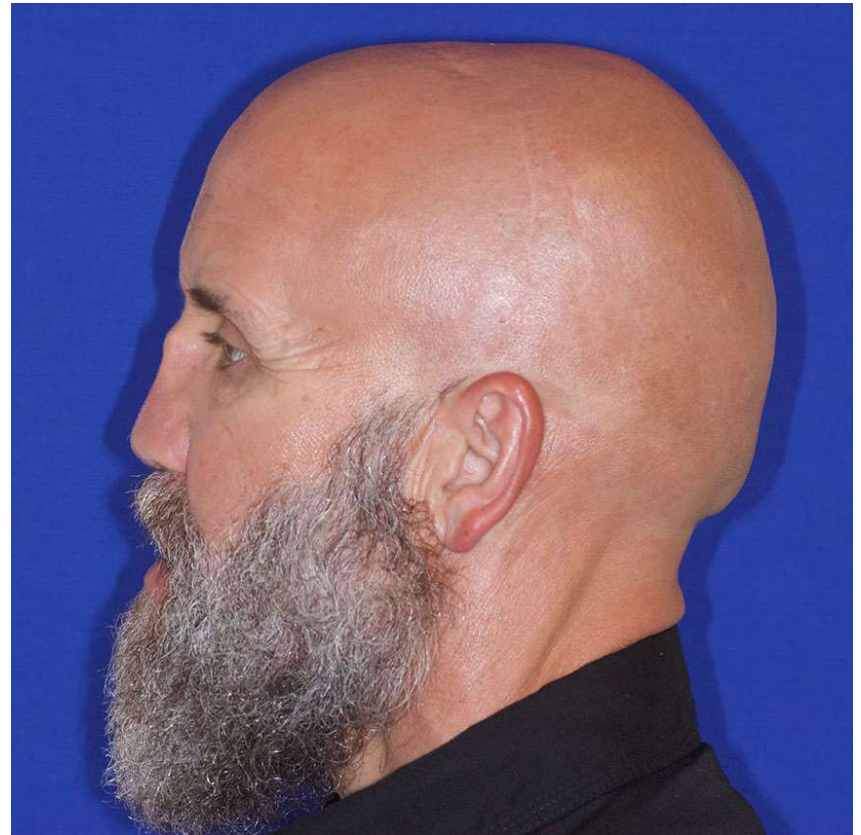
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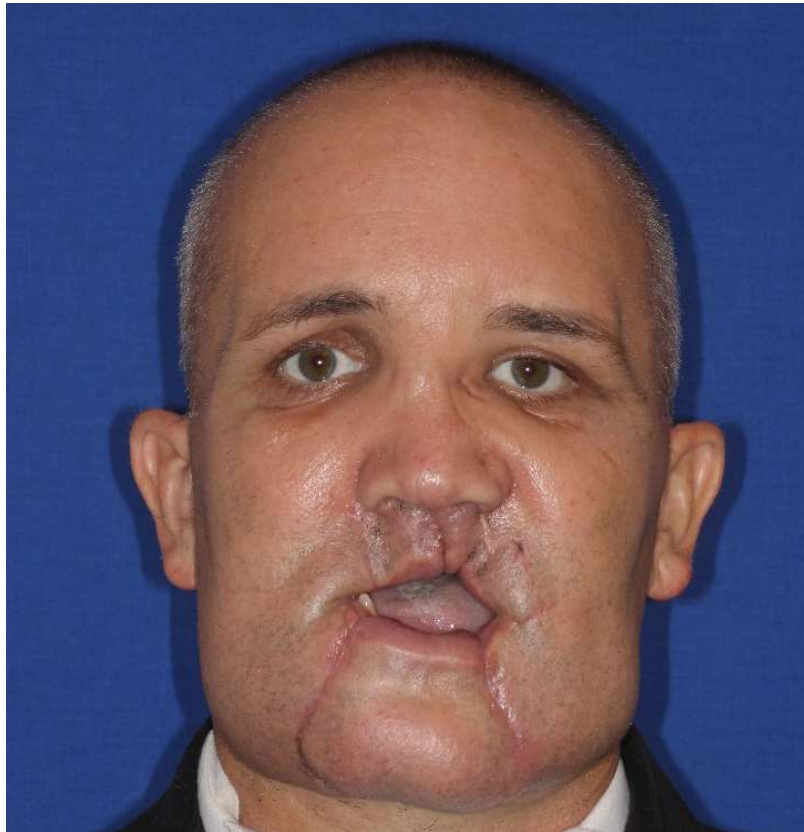
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Conclusions

Fixed implant screw retained hybrid prosthesis can provide satisfactory esthetic and functional results for patients that have suffered facial and dental trauma.

With this case it was demonstrated how an interdisciplinary approach and teamwork can result in a well-conceived and successful rehabilitation.

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Thank you

