

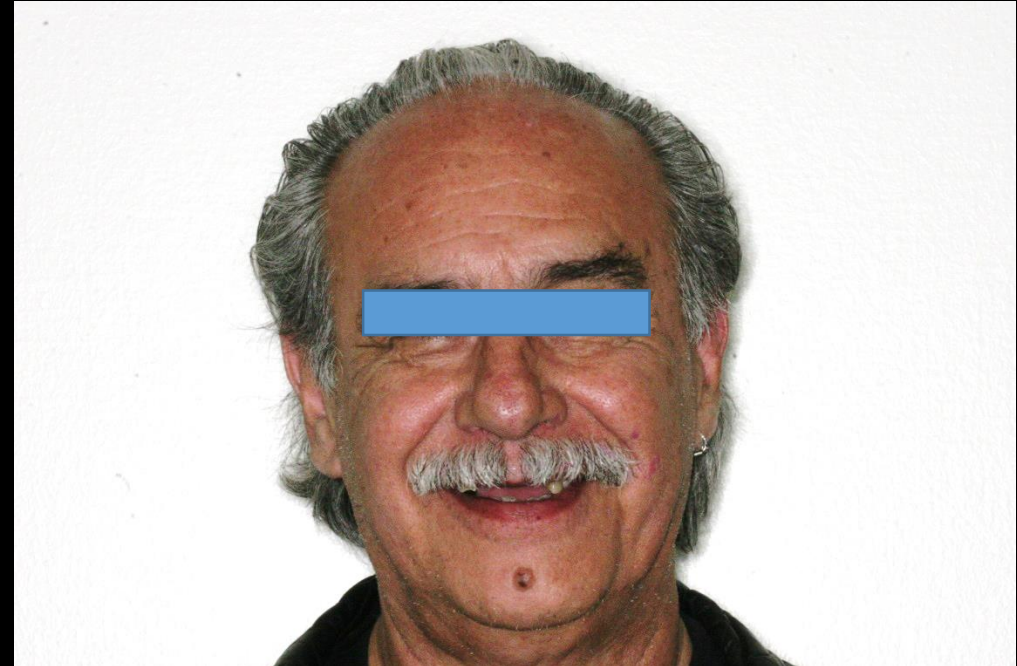
Case Presentation

Student Doctor: Daniel Kamran

Thanks to Dr. Gonzalez, Dr. Shaw, and Dr. Booth

Patient History

- **Age / Sex:** 72/M
- **CC:** I want to replace my partial denture with implants
- **DHX:** Highly restored dentition
- **MH:** BP: 147/93 mmHg, Pulse: 76, hypertension
- **Medication:** Amlodipine
- **Allergies:** Naprosin (Naproxene)
- **ASA II (1)**
- **SHX:** Lives alone, really close to family



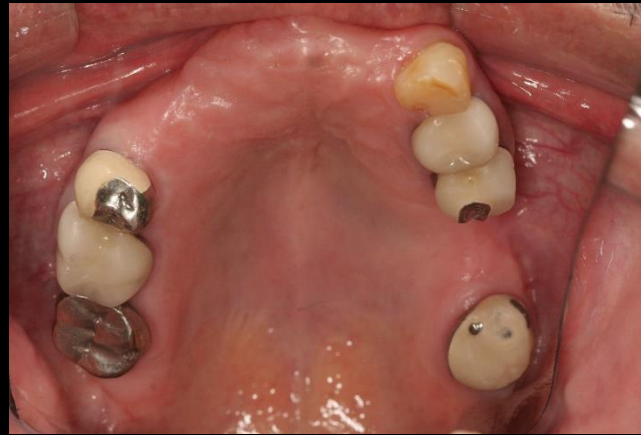
Medications

- **Amlodipine** (Ca Channel Blocker) for Hypertension = “Fewer reports of gingival hyperplasia with amlodipine than with other calcium channel blockers (usually resolves upon discontinuation); consultation with physician is suggested if gingival hyperplasia is observed”

Patients Goals, Concerns, and Considerations

- Pt wants to be able to smile and not use a partial denture
- Pt wants to have better oral health
- Pt would like to finish the implant process
 - Initially, implant process began in 2014.
 - Scope of practice was a large issue
 - Patient expectations vs reality

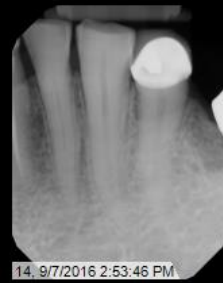
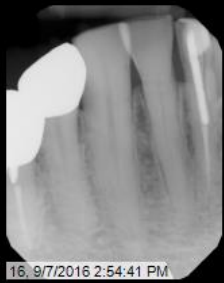
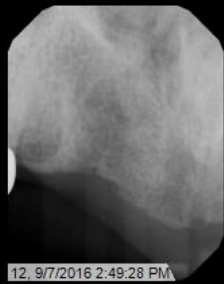
Intraoral Photos (2015)



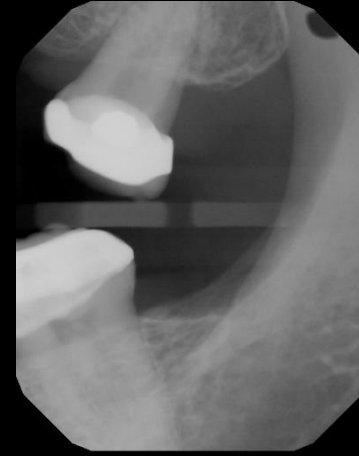
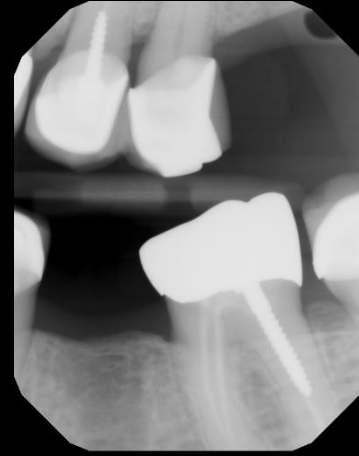
Periodontal Findings and Caries Risk Assessment

- **Plaque Index:** 0.8
- **ATP Reading:** 1450
- **Salivary Flow:** 1.0mL/min
- **pH:** 7.0 or above
- **Hygiene:** Brushing 2x/day, Flossing 1x/day
- **Perio Dx:** generalized chronic moderate periodontitis with severe localized periodontitis
- **Overall Caries Risk:**
 - **Etiology:** Plaque, xerostomia due to drugs, oral hygiene
 - **Diagnosis:** Moderate Caries Risk
- **Prognosis:** Fair to good

FMX – 9/2016



Bitewings – 8/2017



Radiographic and Hard Tissue Findings

- **Alveolar bone level:** generalized chronic moderate periodontitis with severe localized periodontitis
- **Periapical Issues:** none
- **Radiolucency(s):** none
- **Hard Tissue:** no decay and no significant findings
- **Other Pathology:** none

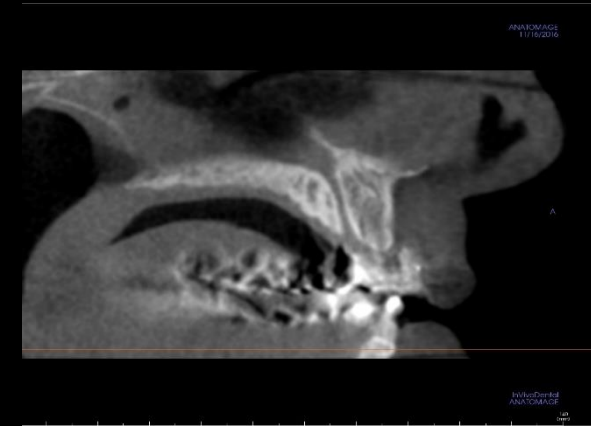
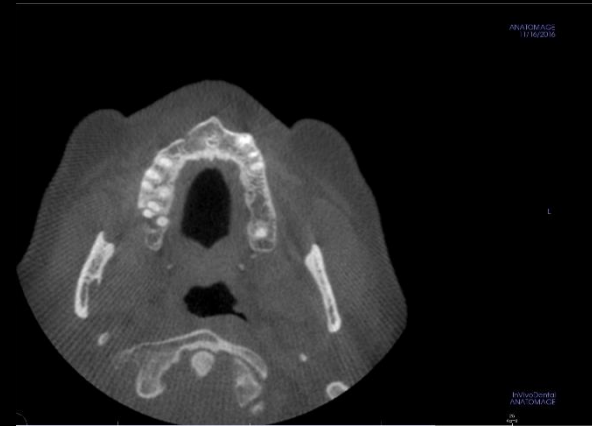
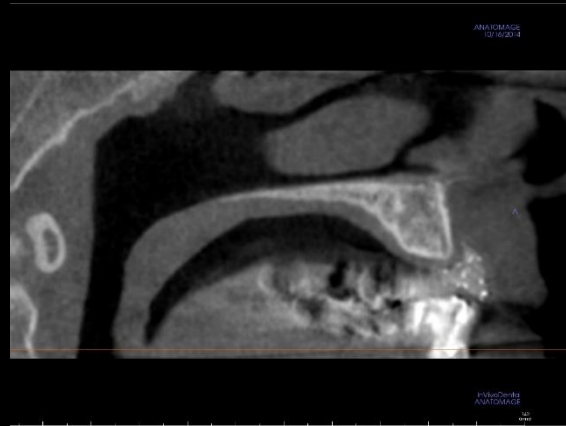
Overall Risk Assessment (medical, perio, and caries)

- **Etiology:** Plaque, oral hygiene, xerostomia due to drugs
- **Caries risk assessment:** Moderate caries risk
- **Prognosis:** Fair to good

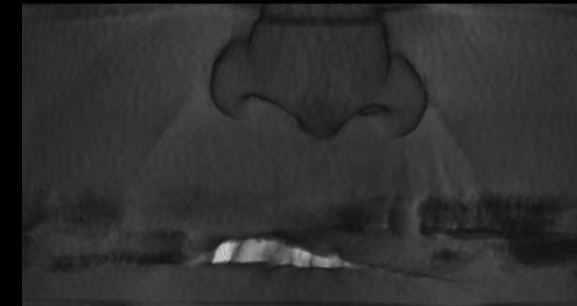
Treatment Plan

- Urgent Care:
 - None
- Disease Control Phase:
 - Adult prophylaxis
- Reconstructive Phase:
 - #5, 7, 10 Implants and #5-10 PFM Bridge
- Maintenance Phase: Recall, Prophylaxis, Occlusal Guard
- Treatment Cost: \$17,000+
- Pt Accepted Treatment Plan
- Other treatment options: No treatment and Keep current partial denture

Implant Process



10/16/2014

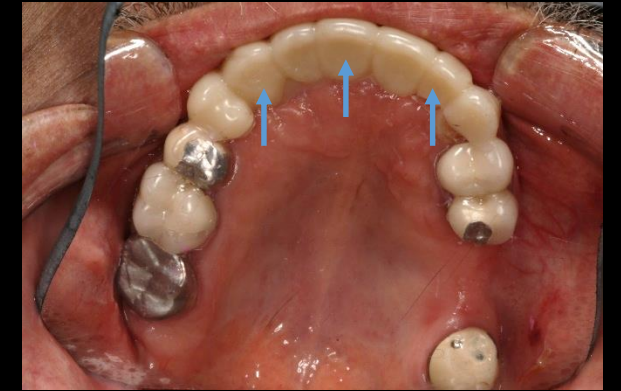


11/16/2016

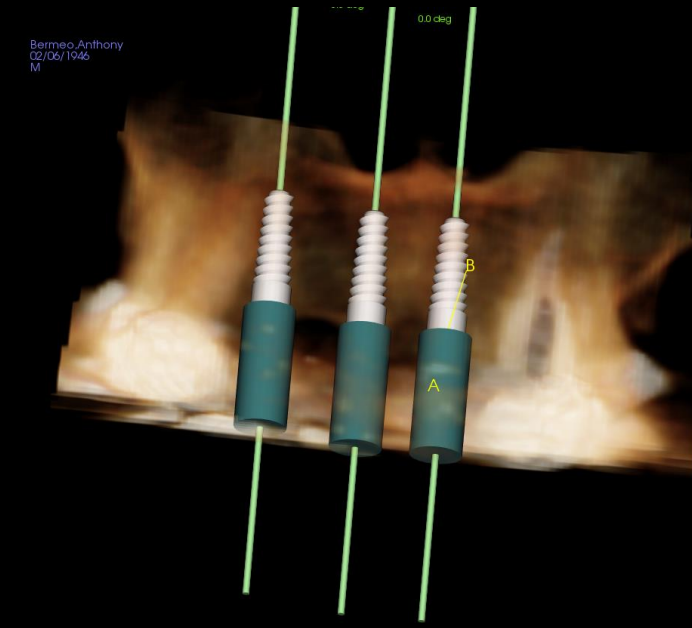
- **Bone Density** – Appropriate
- **Ridge Width** – >3mm
- **Arch Depth** – >13mm, far away from sinus

Implant Surgical Guide

- Different versions of final restoration will let us know approximately the trajectory of the implants
- Implants follow the long axis of the final prosthesis

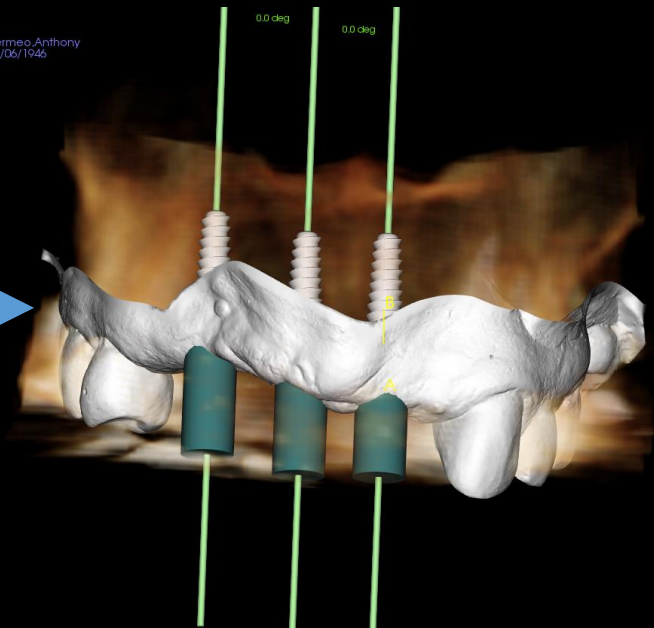


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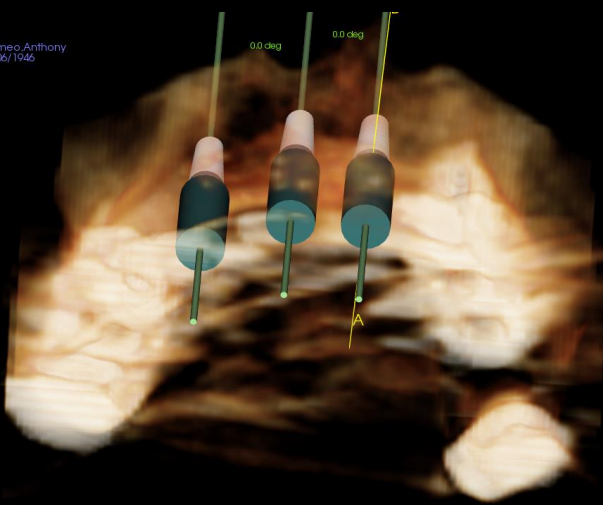
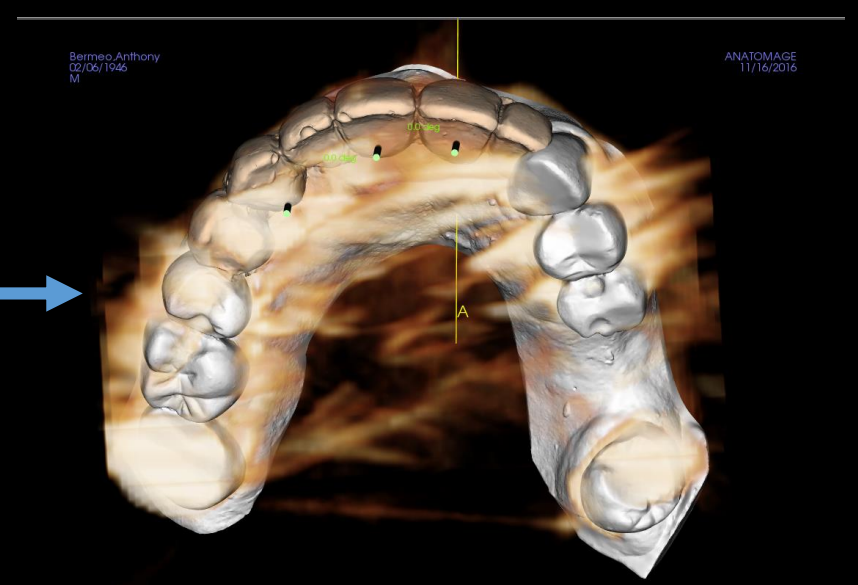


ANATOMAGE 11/16/2016

Bermeo,Anthony 02/06/1946 M

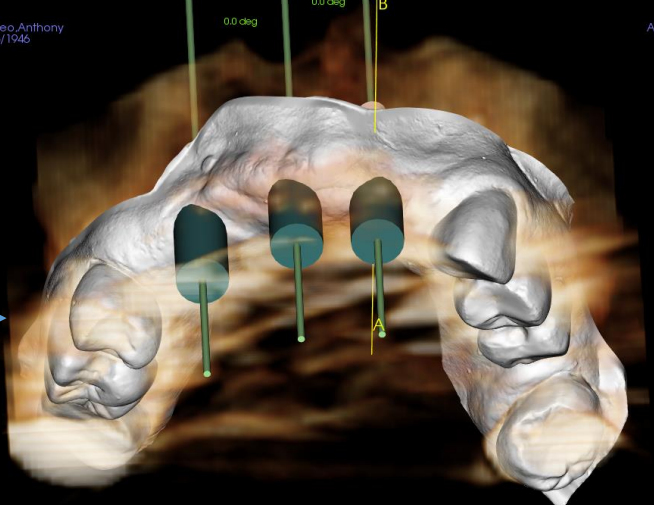


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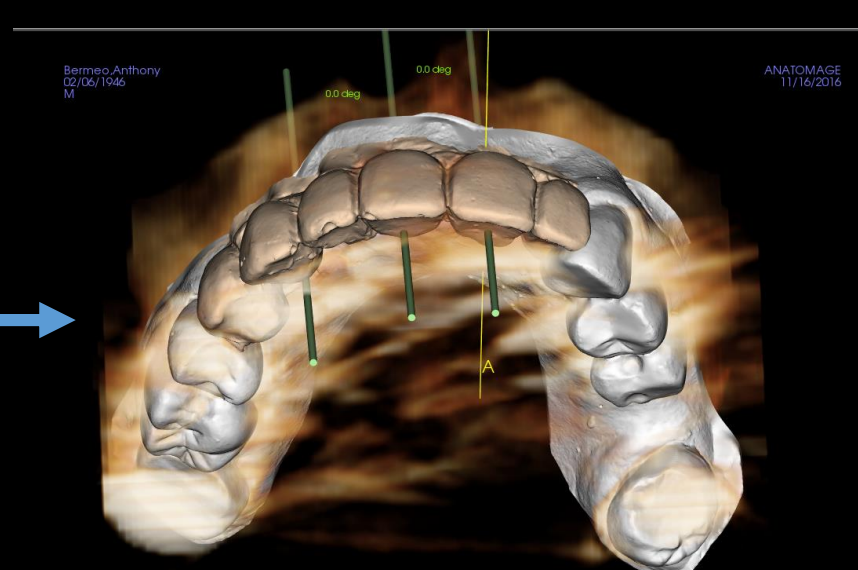


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ANATOMAGE 11/16/2016



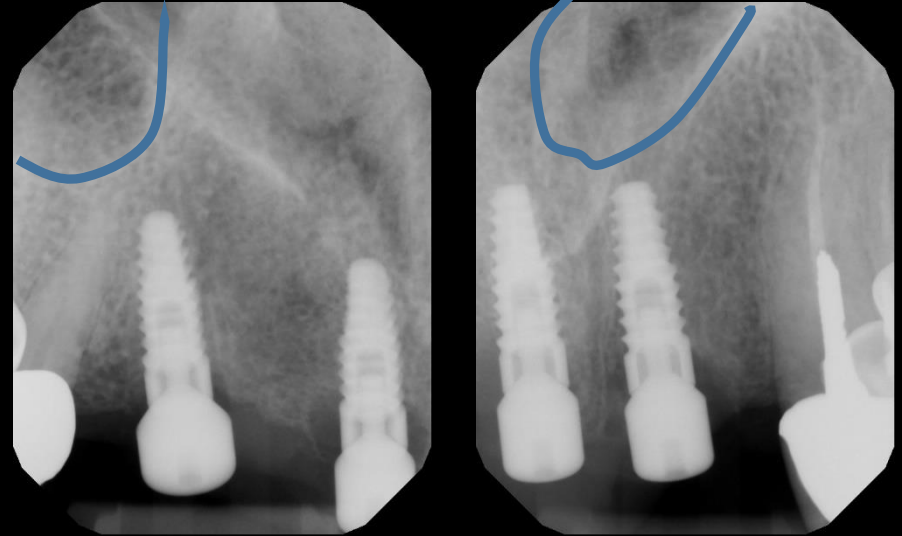
Initial Implant Placement

- Implant Type: Zimmer
- Implant Length and Width: 12mm and 3.8mm
- Final torque: 40 Nm
- All placed slightly below crest
- 2 stage implant



Osseointegration check (7/2017)

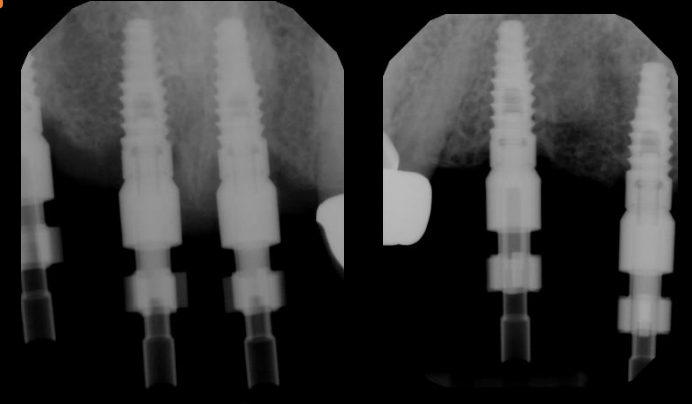
- Implant = Zimmer
- Probing Depth = 2-3mm
- No mobility
- Reserved tissue by making palatal flap and stitched tissue around implant (3)
- Very happy with how gingiva healed



Final Impression and Master Cast

- Open Tray Impression

- Multiple Implants
- Different trajectories
- Splinted impression copings together
 - To avoid undercuts
 - To help implants not move upon impression removal

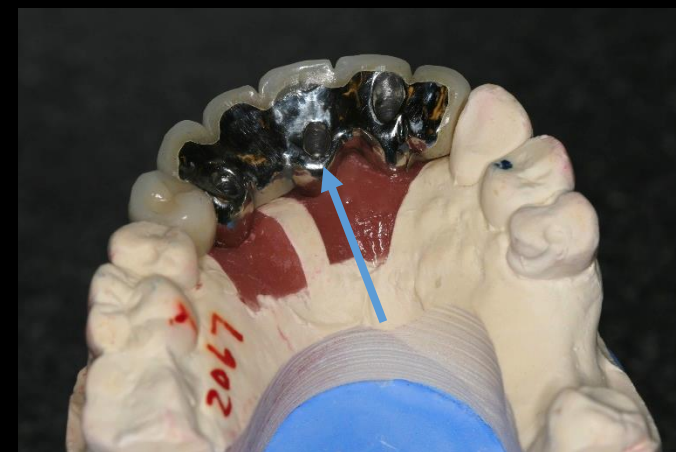
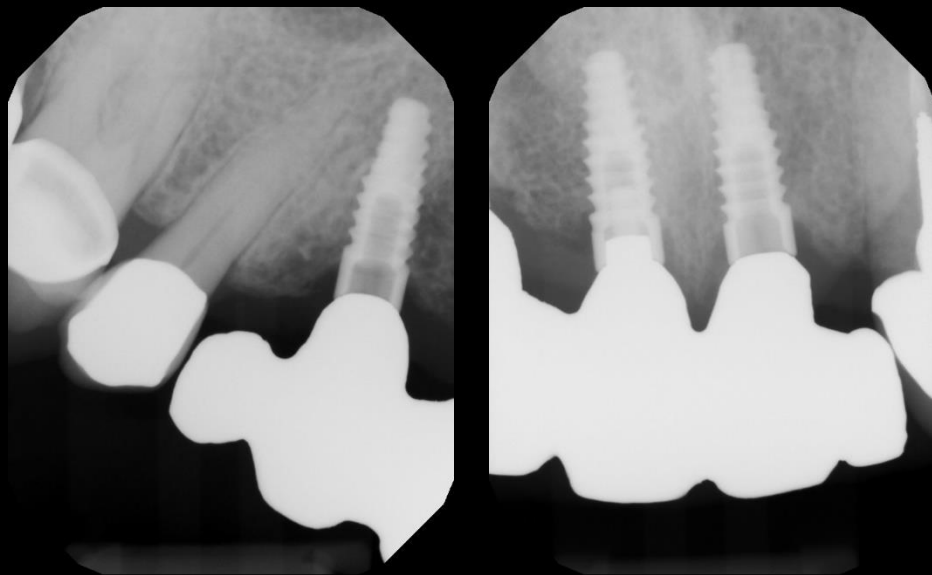


Considerations for Final Prosthesis

- **Engaging vs Non Engaging abutments**
 - Which abutments should be engaging?
- **Type of Final Material**
 - Zirconia vs PFM (2)
 - Other considerations
- **Final Decisions**
 - PFM bridge, Facial is Porcelain and Lingual is Metal

Bridge framework Try-In

- Bridge framework Try-In (metal only)
- Considerations



Final Prosthesis - CIBOE

- Contacts
- Internal
- Blanch
- Occlusion
- Esthetics



Post Op (3/2018)





“I can now eat artichokes & gala apples. Smiling for U.O.P & all staff that has helped me. Thank you” - Patient

Questions?

Informed Consent Issues

- Patient understands risks of implant treatment. Procedure explained.
- Patient understands the risks and esthetics considerations of implant crown restoration. Procedure explained.
- Discussed with patient other treatment options (no treatment and keep partial).

Evidence Based Decisions

1. Kohal RJ¹, Klaus G, Strub JR. **Zirconia-implant-supported all-ceramic crowns withstand long-term load: a pilot investigation.**

<https://www.ncbi.nlm.nih.gov/pubmed/16958698>

2. Rafael Gómez-de Diego,¹ María del Rocío Mang-de la Rosa,² María J. Romero-Pérez,³ Antonio Cutando-Soriano,⁴ and Antonio López-Valverde-Centeno. **Indications and contraindications of dental implants in medically compromised patients: Update.**

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4192572/>

3. Bruno Ramos Chrcanovic,¹, * Tomas Albrektsson,^{1,2} and Ann Wennerberg¹. **Flapless versus Conventional Flapped Dental Implant Surgery: A Meta-Analysis.**

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4065043/>

4. **Lexicomp**