

BioXclude

Best of Periodontology- Resident Edition

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PGY-3

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BACKGROUND

- Periodontics enthusiast from Simi Valley, CA.
- Specifically, from the exit of Yosemite Avenue on CA-118-W which is famous for it's smiley face up on the hills as you take the exit .
- Smiley face which is like the one bioXclude has and everyday going home when I see it, it reminds me of bioXclude



CASE II

Ridge Augmentation

PATIENT INFORMATION

26-year-old female, referred to UCLA Periodontics Clinic from a general dentist office due to severe bone loss around teeth #12-13a

Medical history significant for clinical depression, under treatment with an oral dose Sertraline daily

No allergies or drug use reported.

Dental history significant for orthodontic treatment, retained with a bonded SS wire on upper & lower anterior teeth.

Periodontal phenotype:
Pink, firm, thick

Oral Hygiene: Good

Generalized 2-3mm PD, with localized 11-12mm around teeth #12-13

Grade 3 mobility was noted around both teeth

Teeth #12-13 appeared to be floating on the radiograph



DIAGNOSIS, PROGNOSIS AND TREATMENT PLAN

Diagnosis

Localized Periodontitis Stage III Grade C

Prognosis

Overall: Favorable; Teeth #12-13: Hopeless

Tx plan

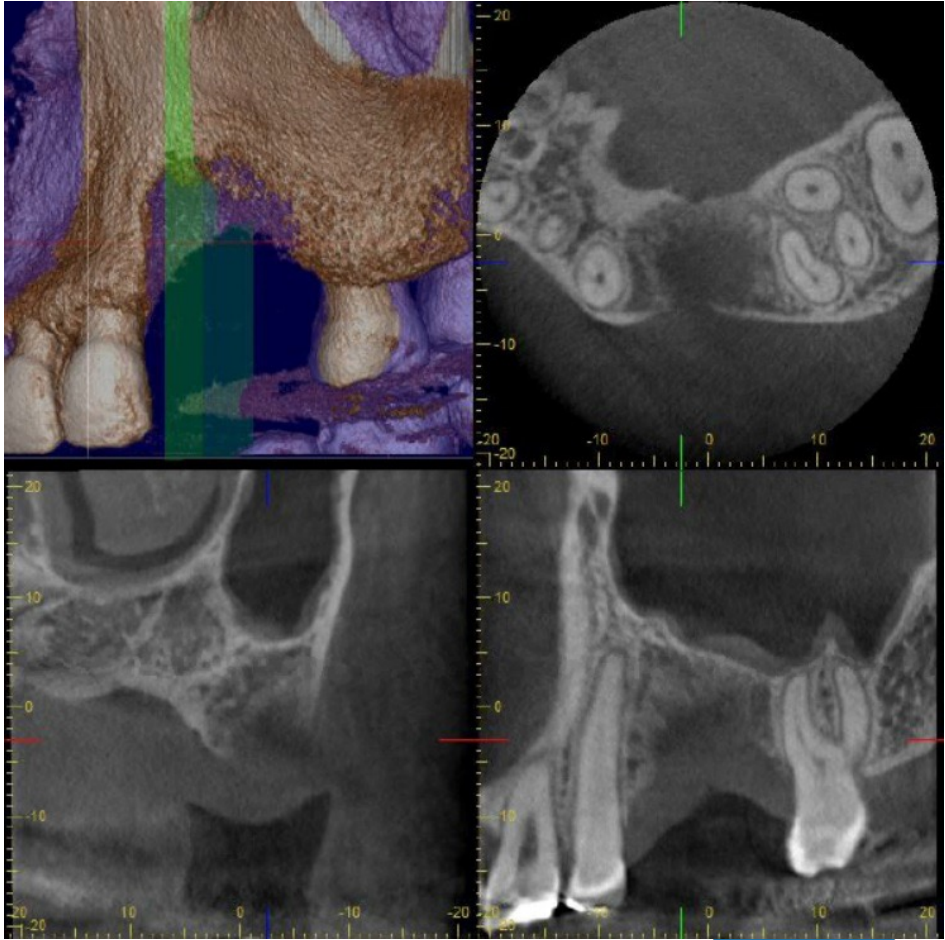
Extraction of teeth #12-13 along with Biopsy of the extraction socket and surrounding soft tissue

TREATMENT SEQUENCE

- Patient did not come back for the scheduled treatment due to personal reasons
- Contacted almost 3 months after because of a "A Bloodless Extraction" experience
 - Bloodless extraction: The exfoliation of tooth that results from the periodontal destruction induced by elastic bands is termed as bloodless extraction ([Redlich et al., 1997](#)).
- CBCT ordered and horizontal and vertical alveolar ridge augmentation was planned



CLINICAL PRESENTATION

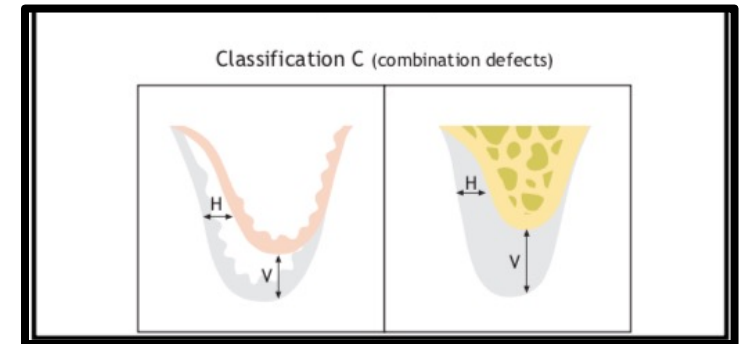
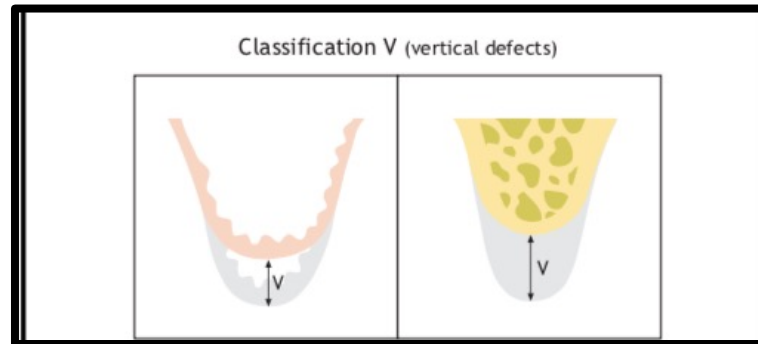
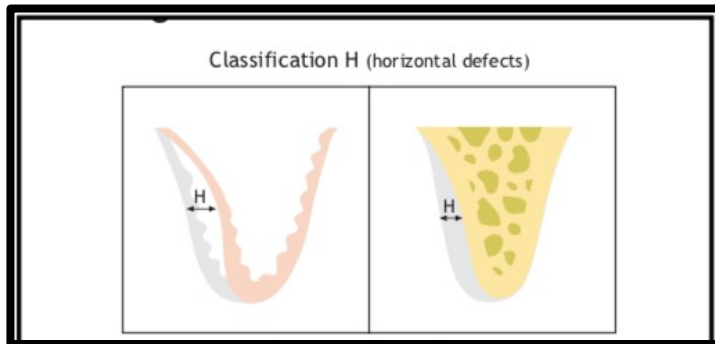


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REVISED DIAGNOSIS

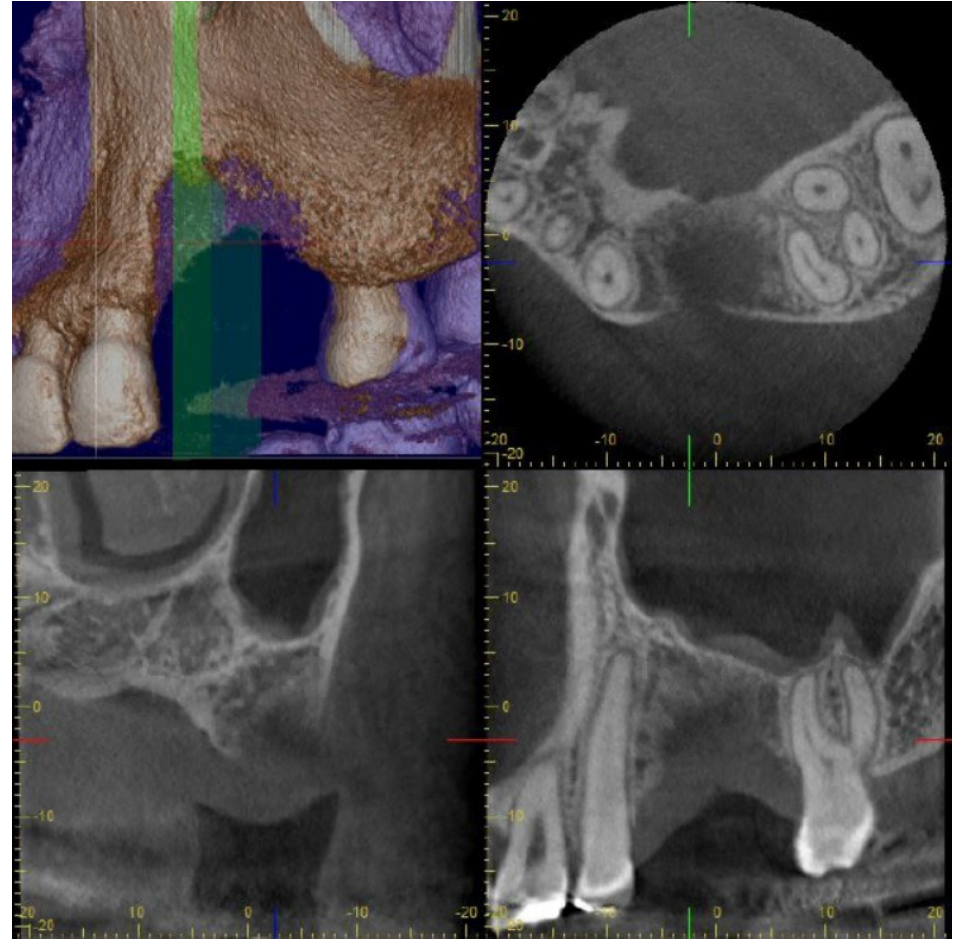
- Localized Stage III Grade C Periodontitis
- Alveolar Ridge Defect Class C-I (HVC Classification)



HVC Classification. Subclassification: Small (s) \leq 3mm; Medium (m) 4–6mm; Large (l) \geq 7mm

Wang HL, Al-Shammari K. HVC ridge deficiency classification: a therapeutically oriented classification. Int J Periodontics Restorative Dent. 2002 Aug;22(4):335-43. PMID: 12212680.

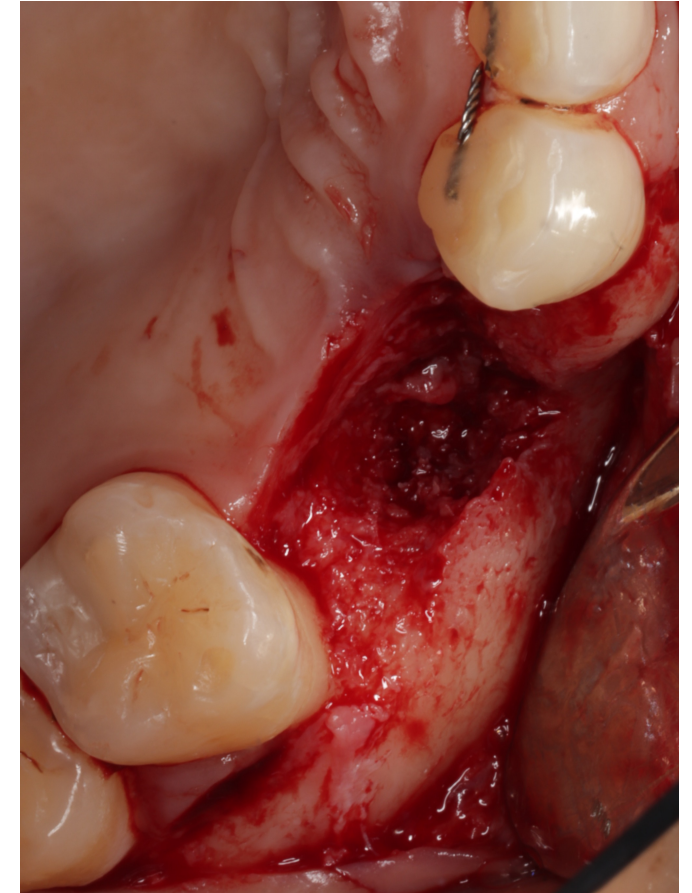
PRE-OP PRESENTATION



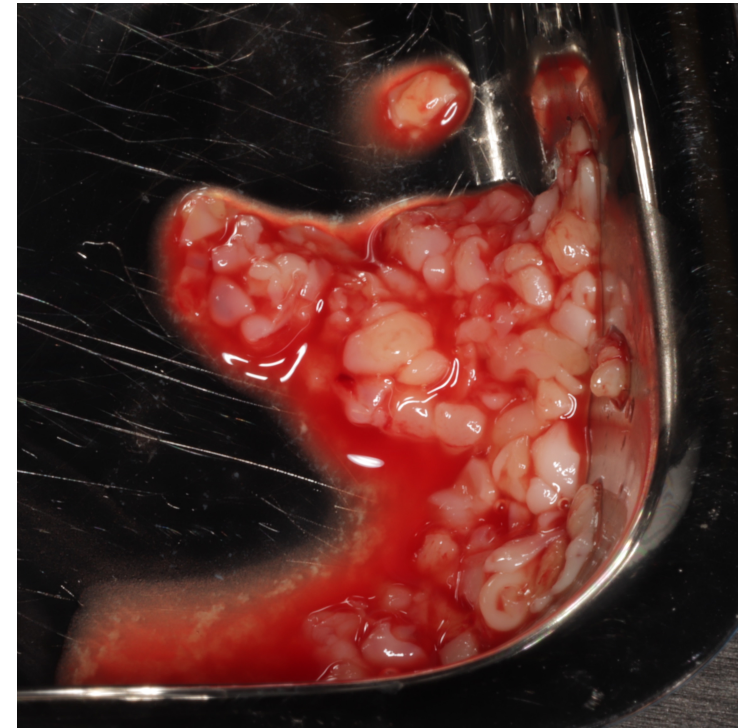
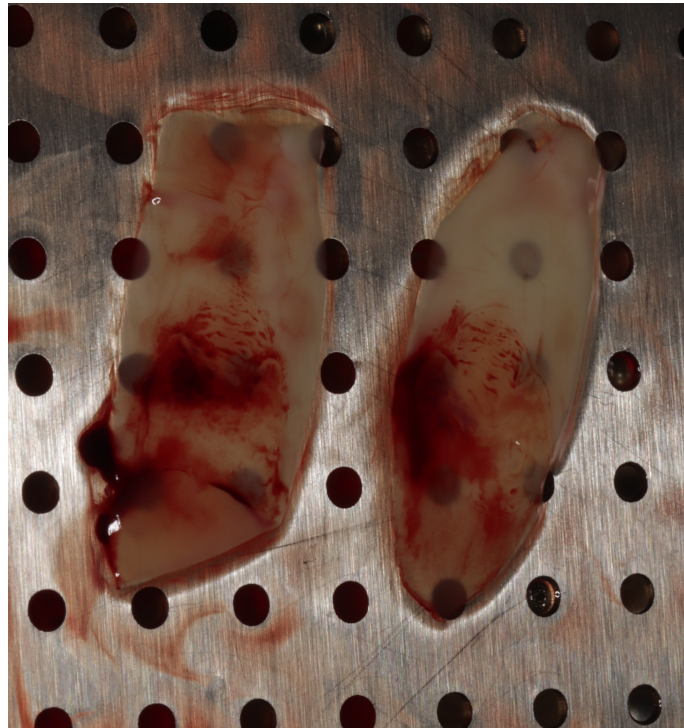
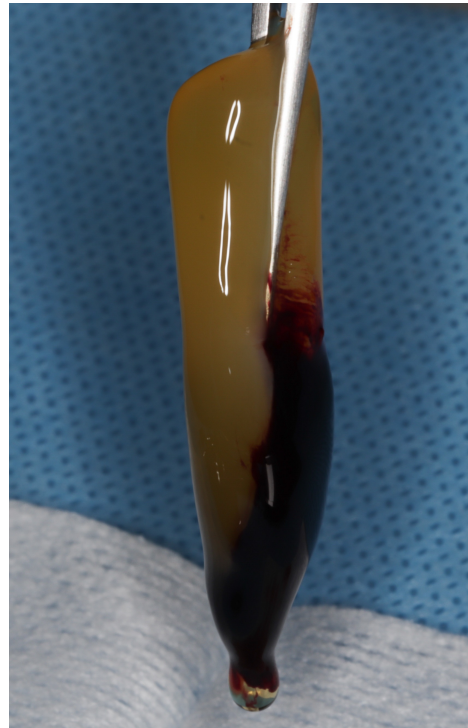
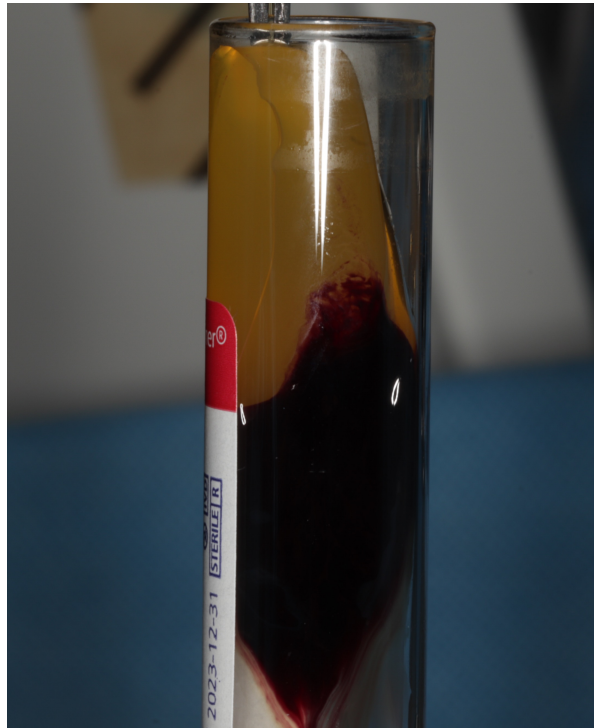
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INITIAL INCISION AND FLAP REFLECTION

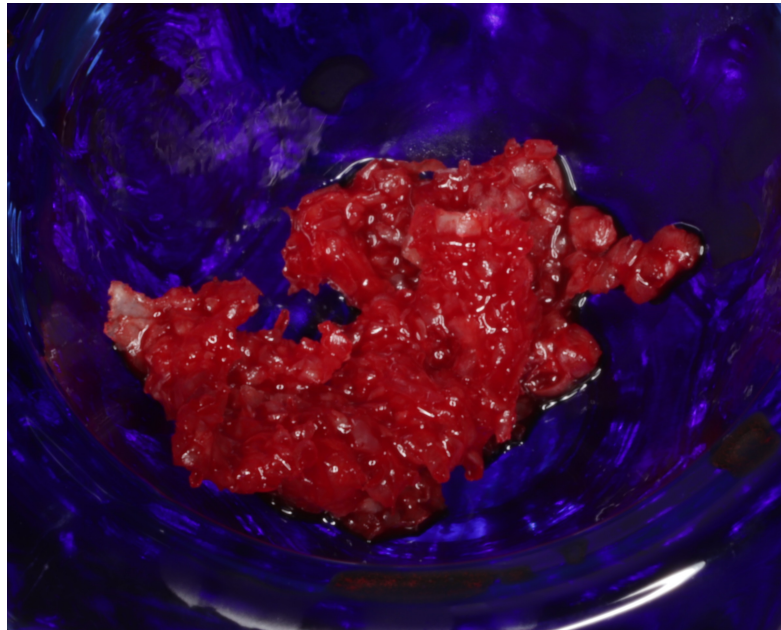


BIO-MATERIALS (PRF)



Choukroun, J. et al. (2006) Platelet-rich fibrin (PRF): a second-generation platelet concentrate. Part IV: clinical effects on tissue healing. *Oral Surg. Oral Med. Oral Pathol. Oral Radiol. Endod.* 101,

BONE GRAFT MATERIAL



Autogenous bone harvested from the zygoma about the site #12-13



2 cc of Mineralized Freeze-Dried Bone Allograft hydrated in patient heme and L-PRF



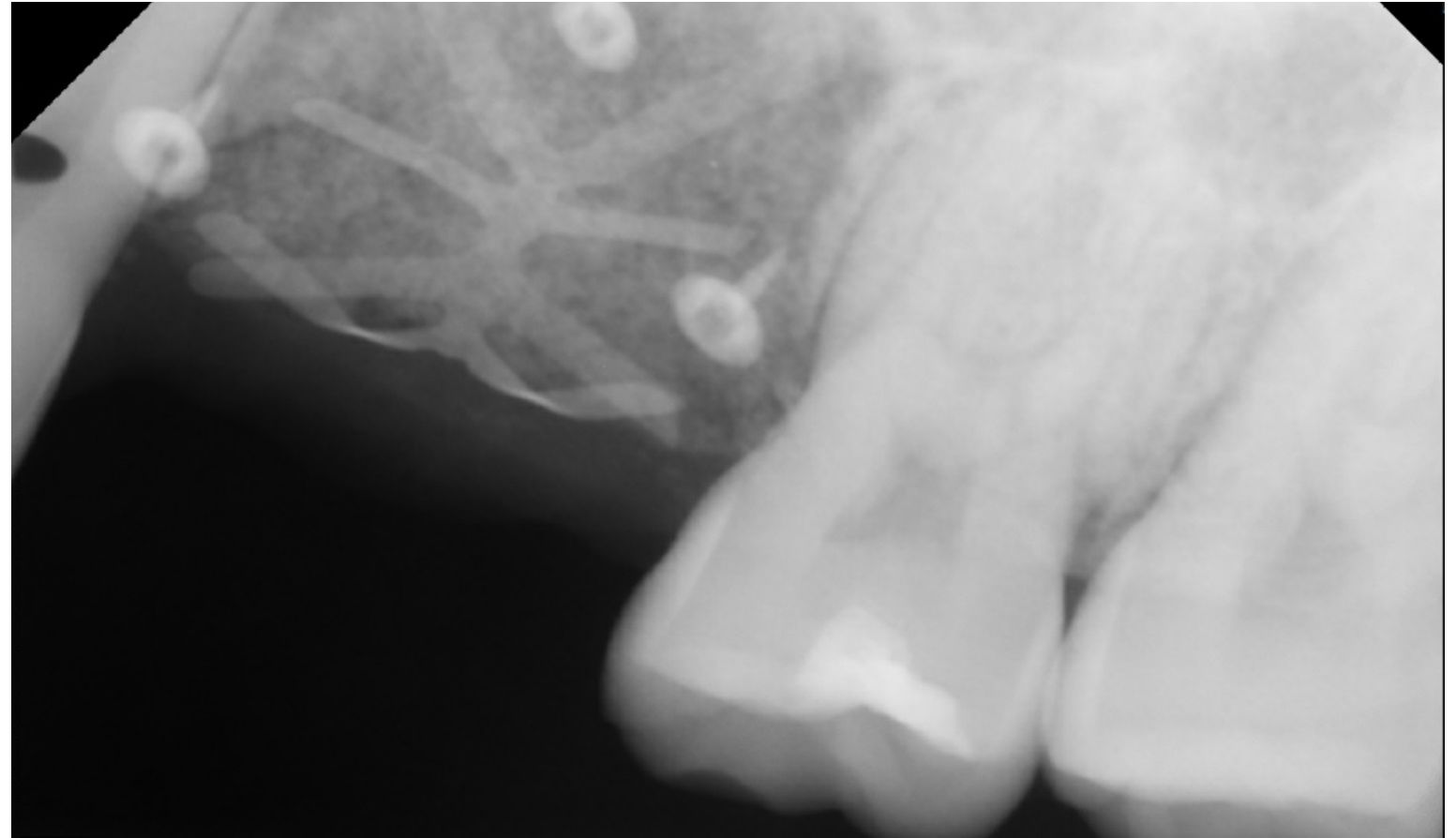
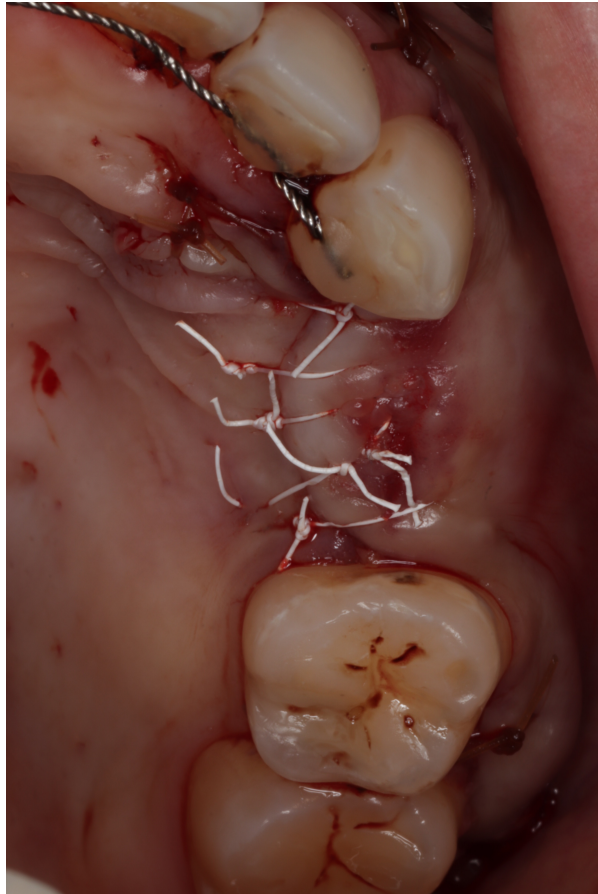
Mix of autogenous + FDBA and chopped PRF membranes

MEMBRANES

Ti-reinforced PRFE membrane stabilized with tacks, covered by PRF
Membranes topped off with BioXclude membrane



PRIMARY CLOSURE



2-WEEK FOLLOW-UP





4-WEEK FOLLOW-UP



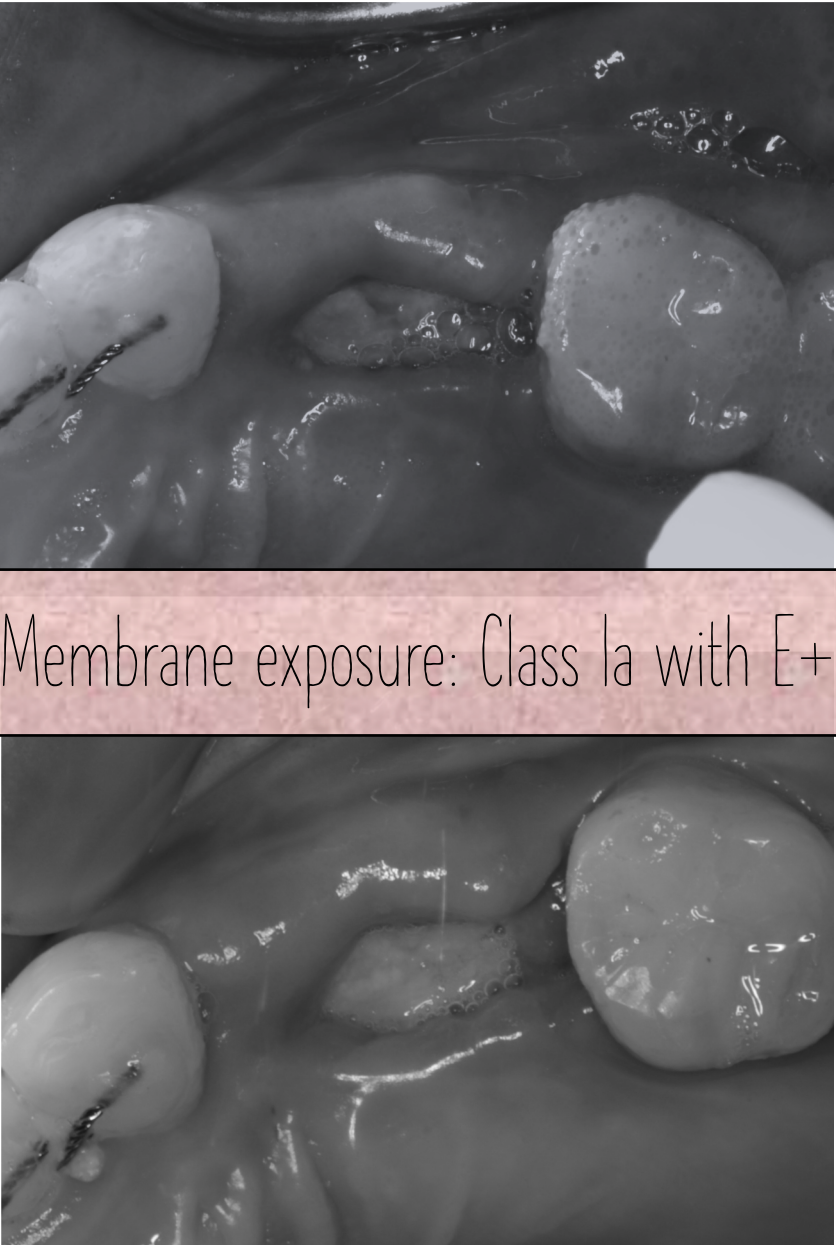
6-WEEK FOLLOW-UP

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VROOM & GALLO CLASSIFICATION OF PTFE MEMBRANE EXPOSURE AFTER GBR PROCEDURE

- CLASS I:
 - a = Membrane exposures without purulent exudate
 - b = Edges of the membrane covered by tissue (E+) or not (E-)
 - c = Time of exposure (T), measured in number of days post-operation.
- CLASS II:
 - a = Membrane exposure with purulent exudate
 - b = Time of exposure (T), measured in number of days post-operation.
- CLASS III:
 - a = No membrane exposure but presence of an abscess and/or fistula
 - b = Time of presence of an abscess and/or fistula (T), measured in number of days post-operation.



Membrane exposure: Class Ia with E+

MANAGEMENT OF MEMBRANE EXPOSURE

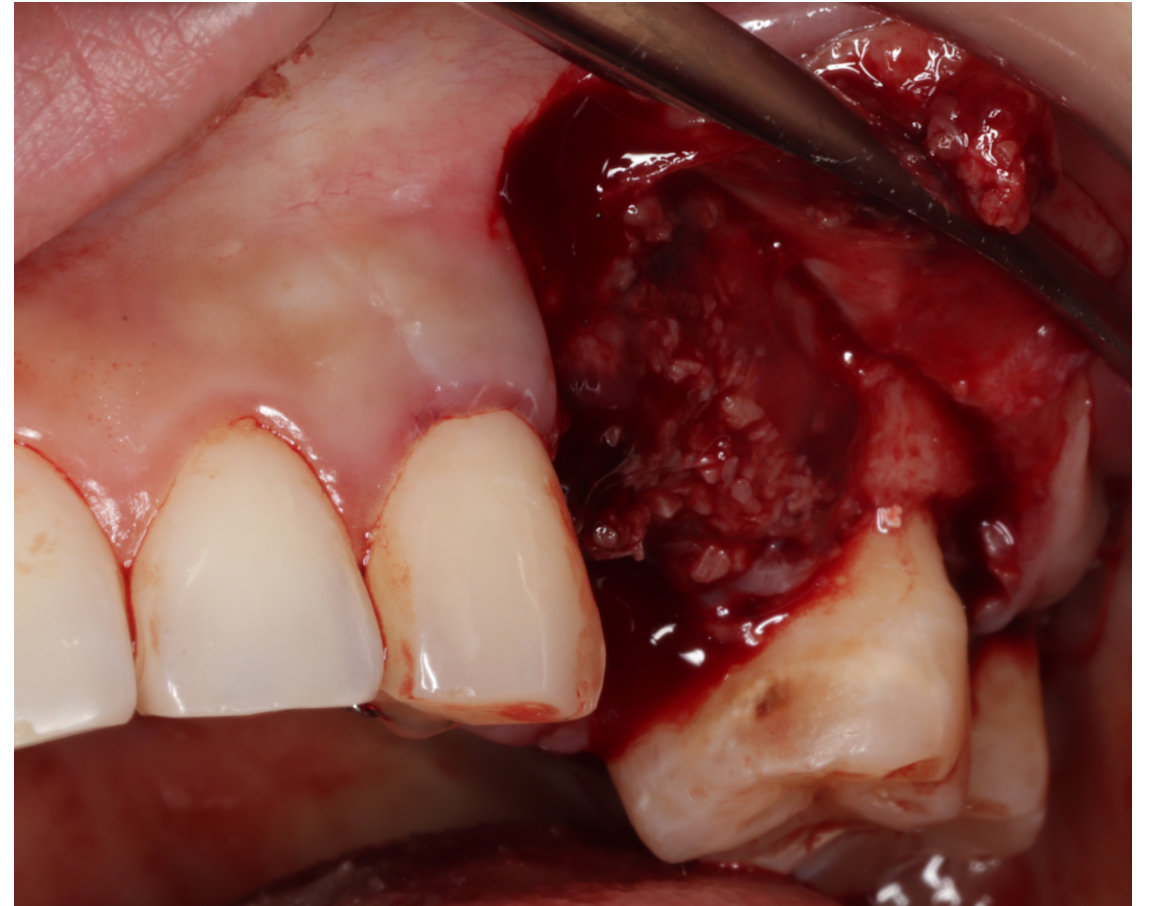
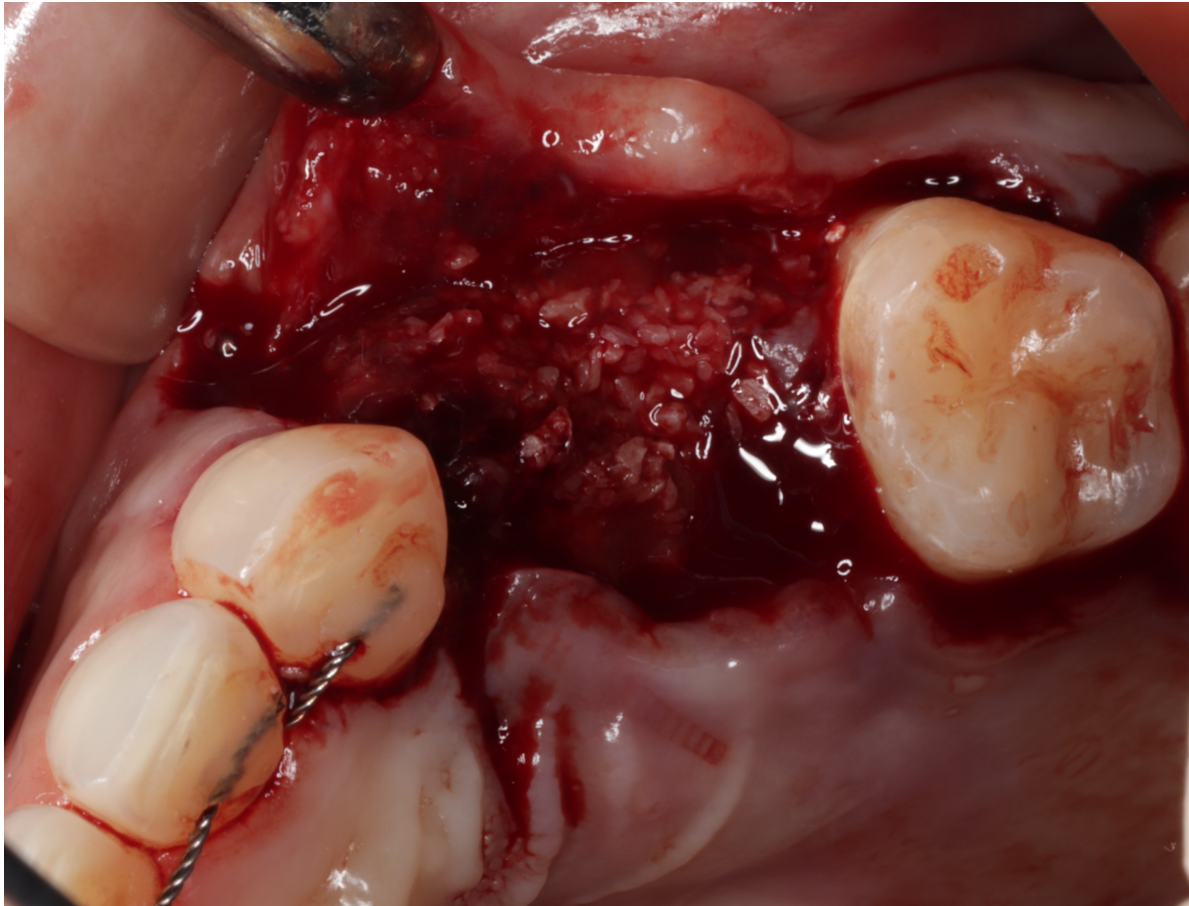
- I placed bioXclude right underneath the site of exposure that gave me a peace of mind about soft tissue closure.
- Decision of Ti-reinforced PTFE membrane was made at 6-week mark
- Meantime, the membrane exposure was kept clean with meticulous oral hygiene and application of 0.12% CHX with a cotton tip applicator over the exposed membrane.

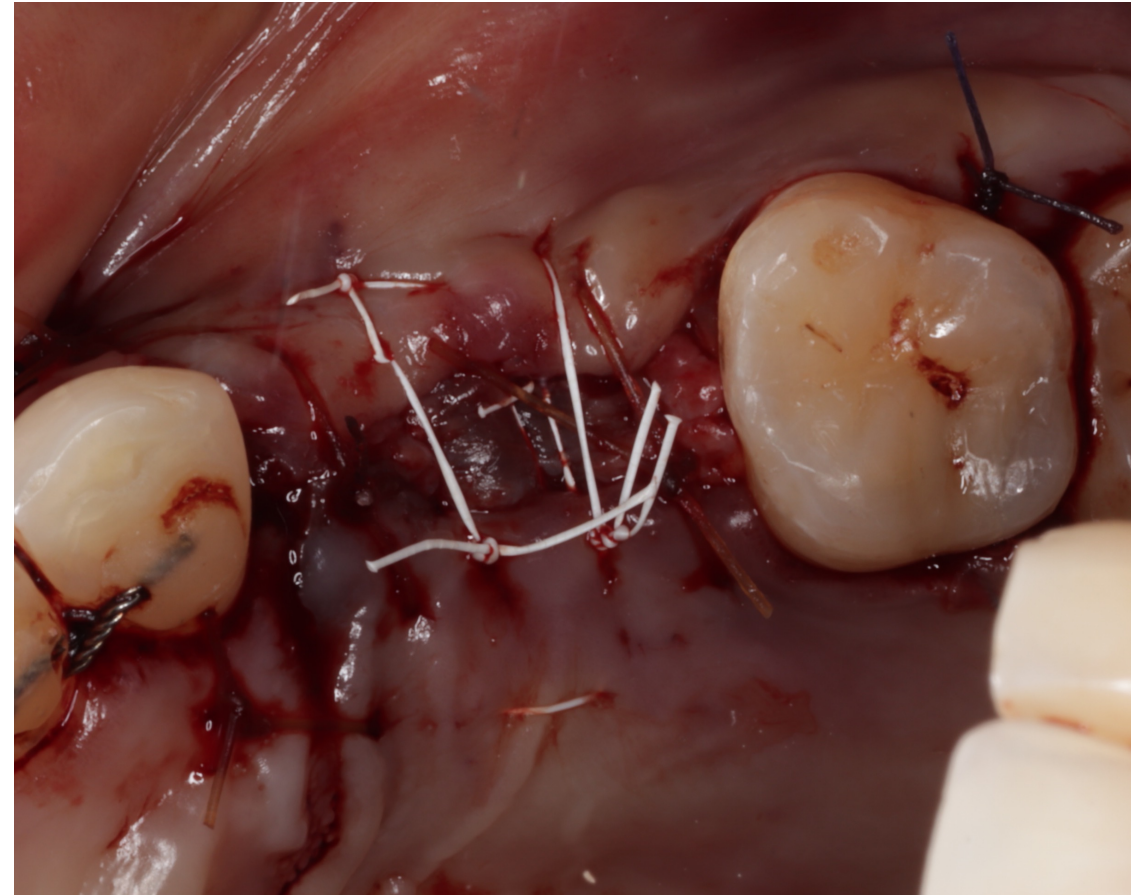
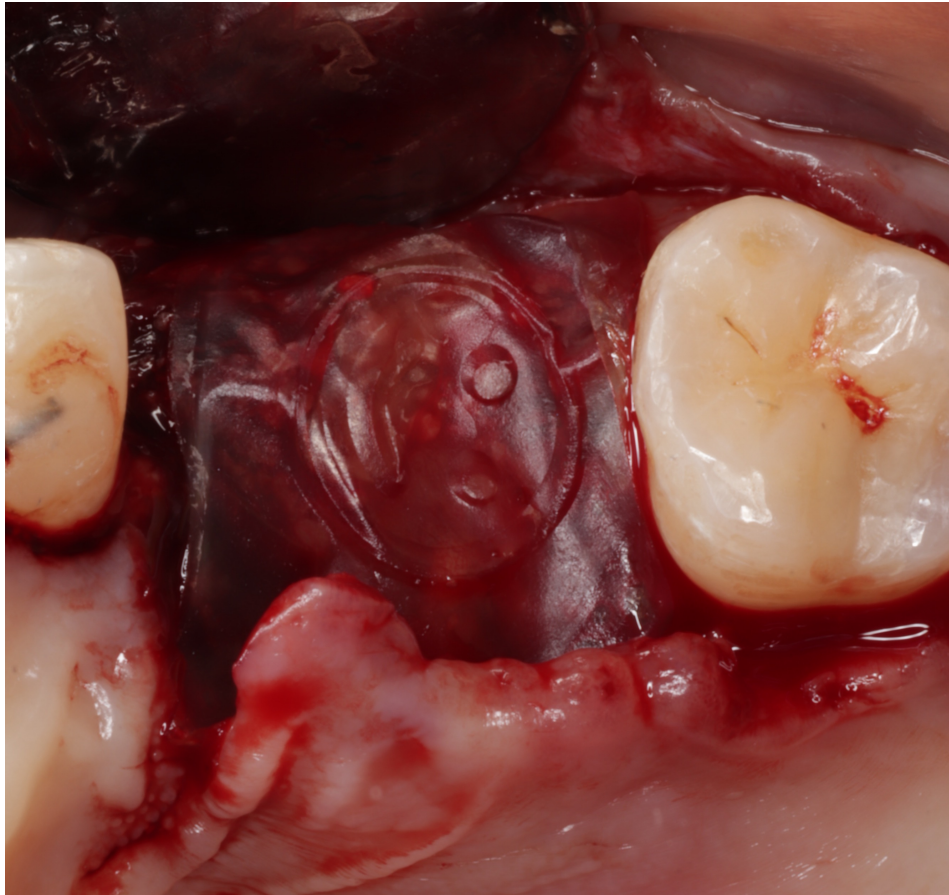
D-PTFE MEMBRANE REMOVAL

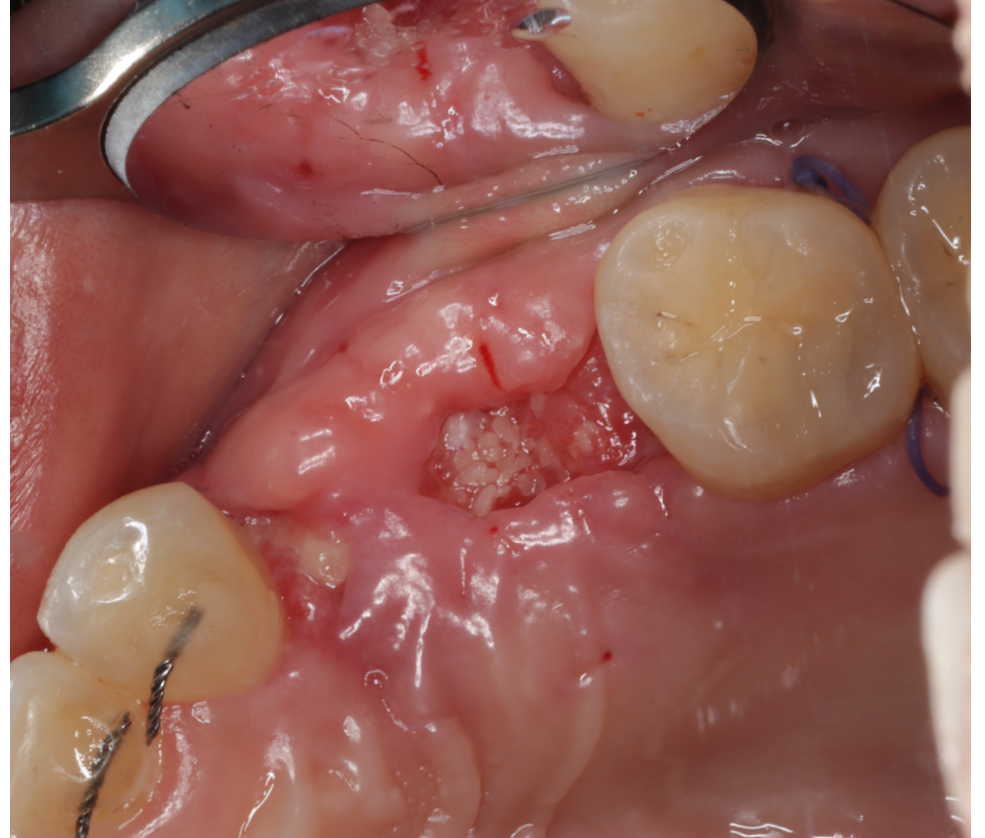


Vroom MG, Gründemann LJ, Gallo P. Clinical Classification of Healing Complications and Management in Guided Bone Regeneration Procedures with a Nonresorbable d-PTFE Membrane. *Int J Periodontics Restorative Dent.* 2022 May-Jun;42(3):419-427. doi: 10.11607/prd.5590. PMID: 35472121.

IMMATURE OSTEOID VISIBLE UNDERNEATH THE MEMBRANE





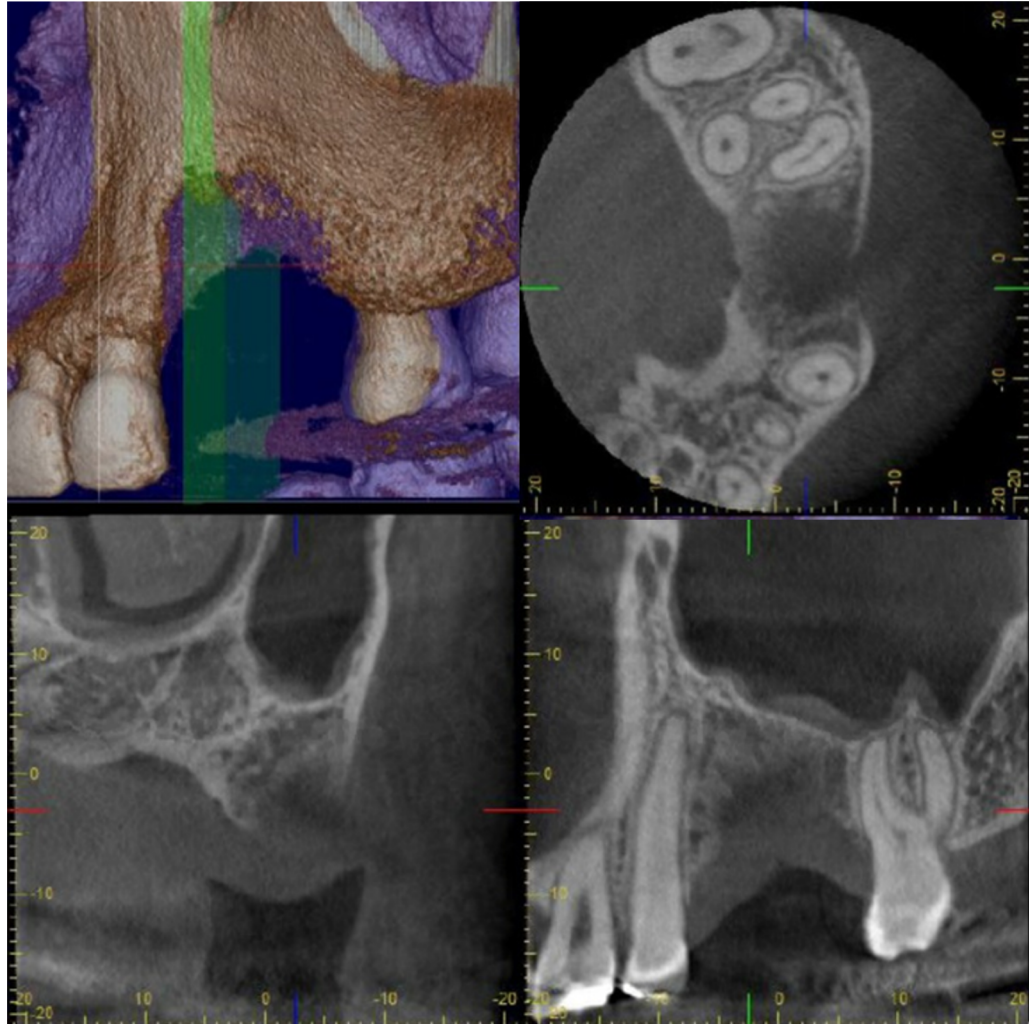


2-WEEK FOLLOW UP

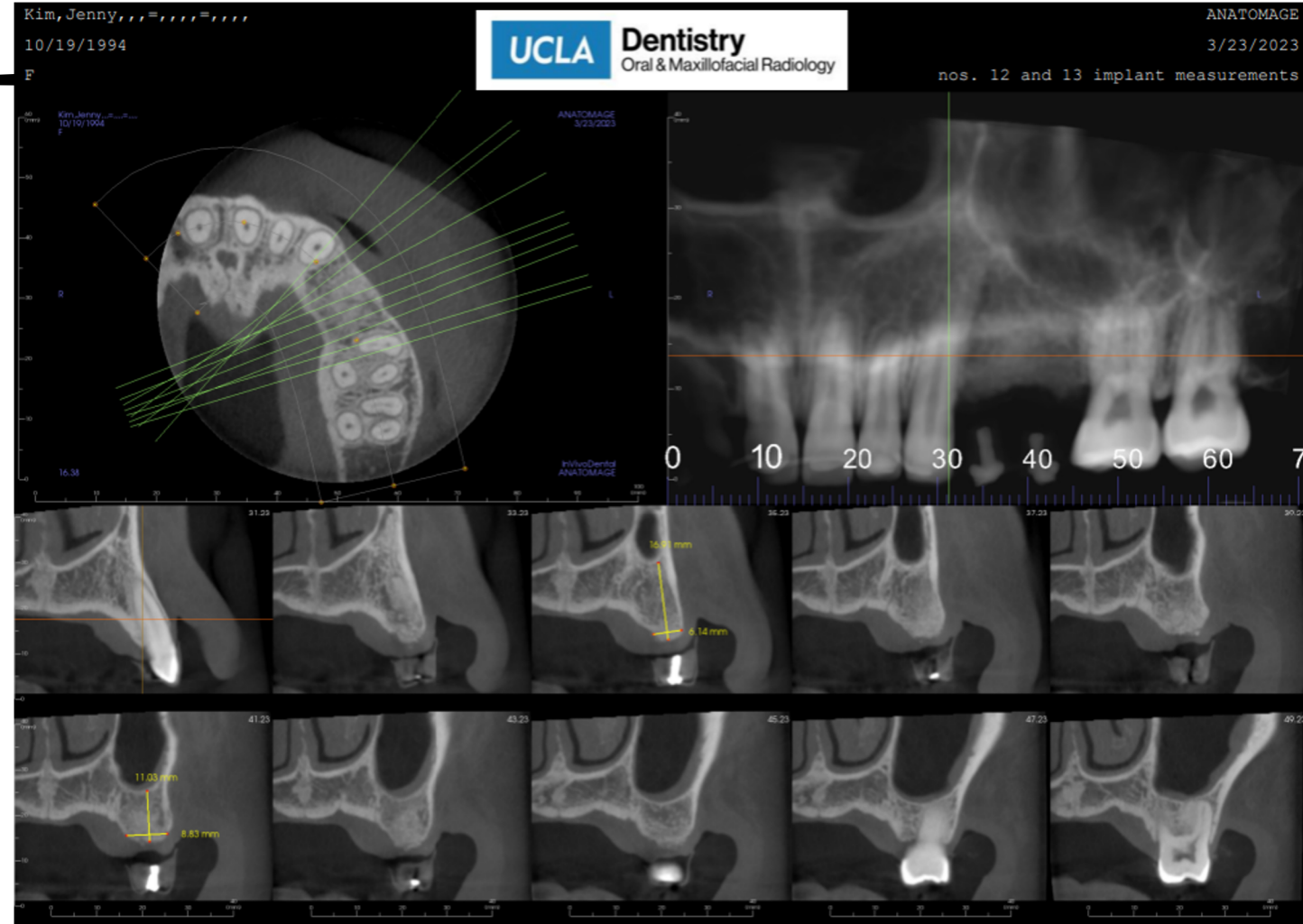
6-MONTH FOLLOW UP

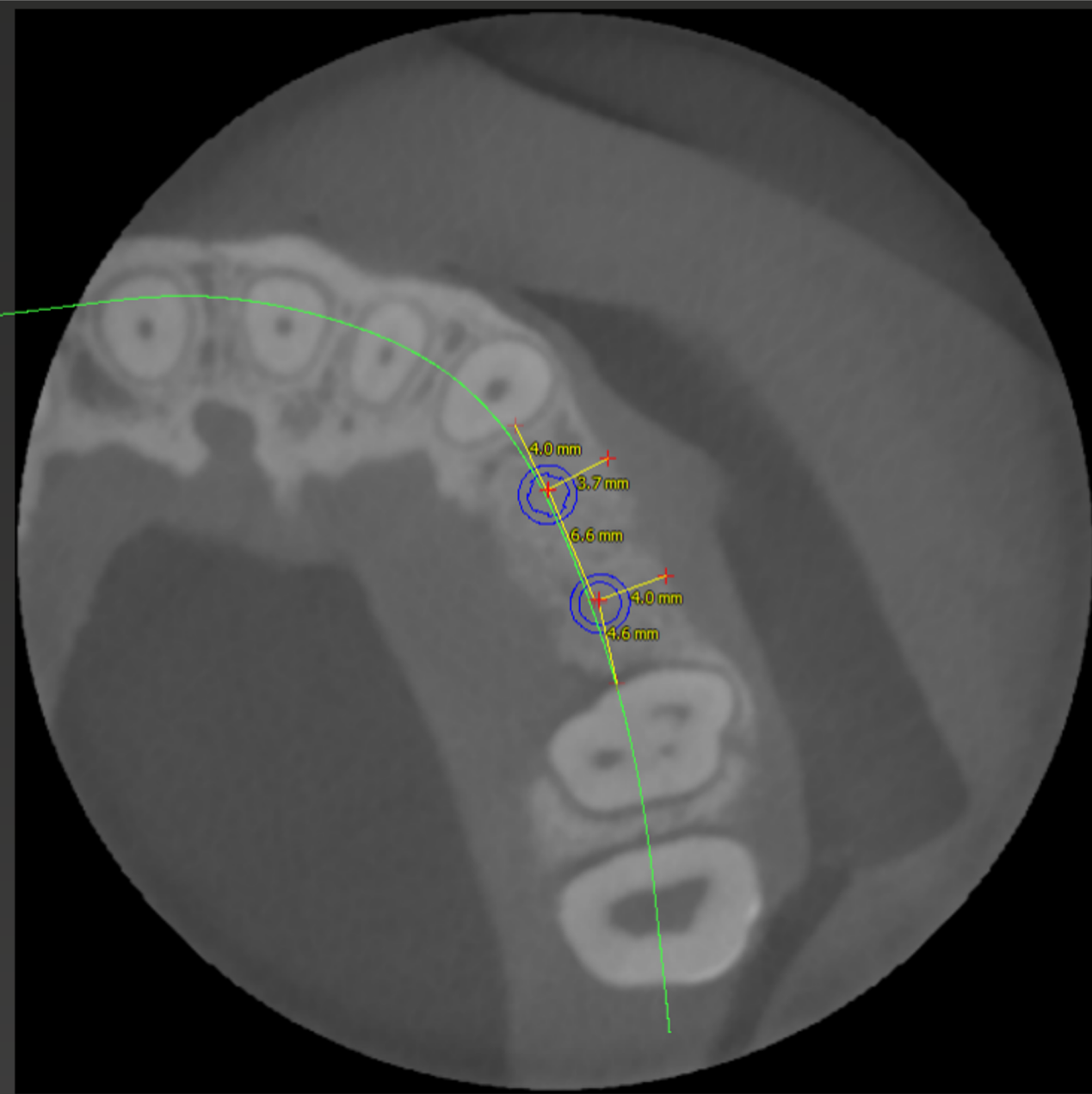
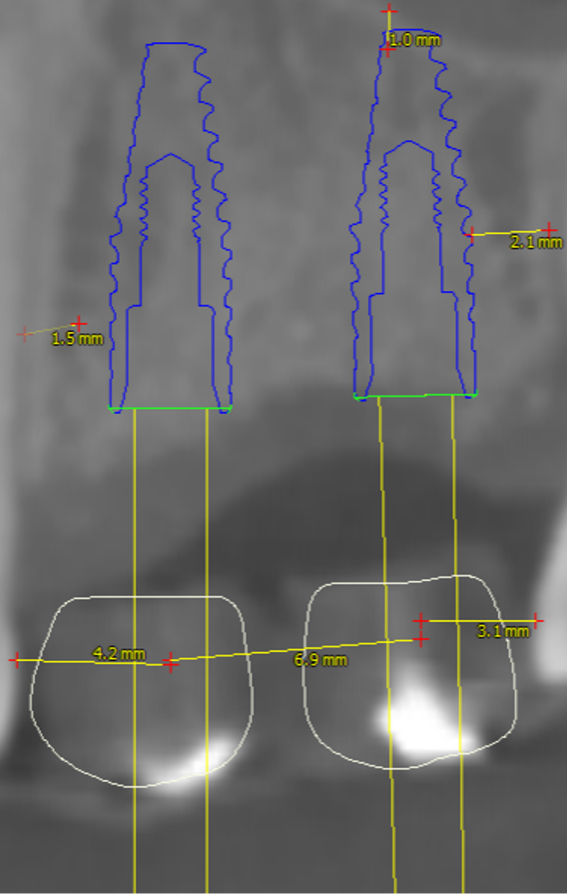


BEFORE



9-MONTHS POST-OP

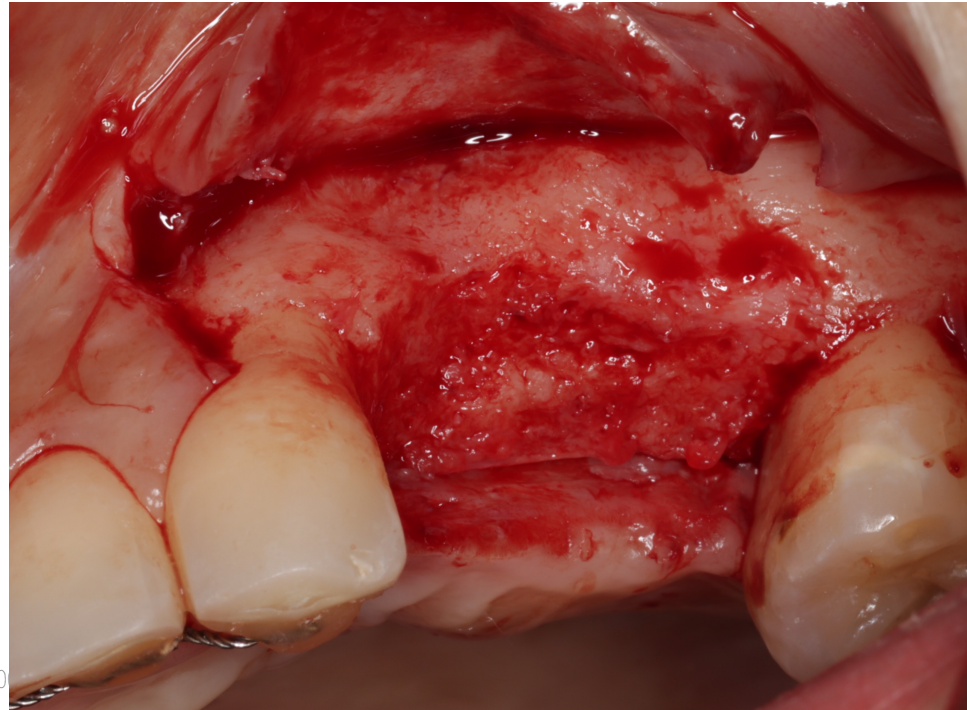
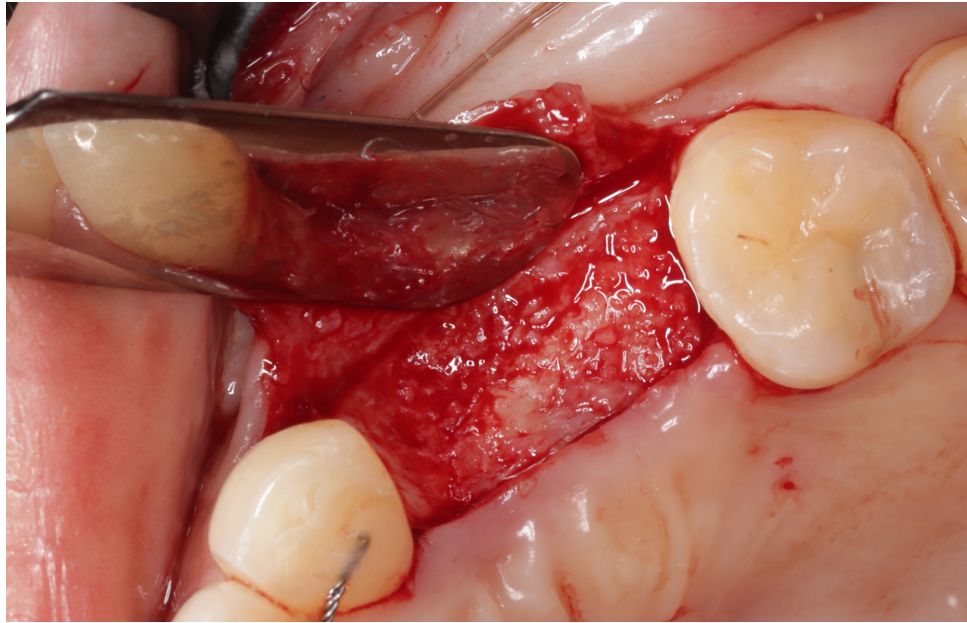




SITE RE-ENTRY FOR IMPLANT PLACEMENT



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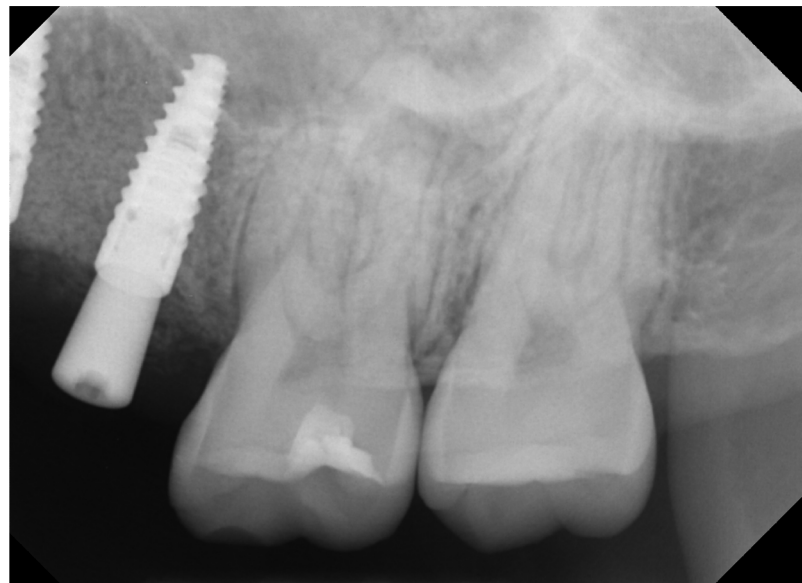
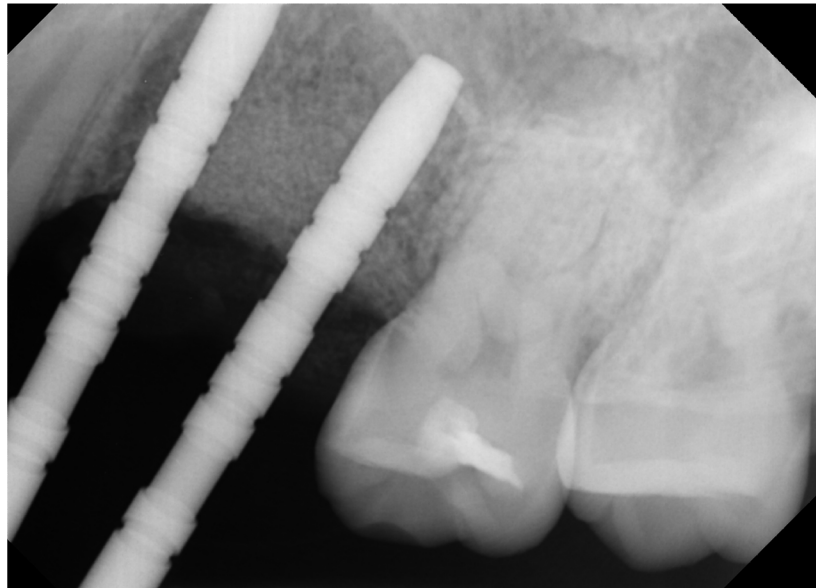
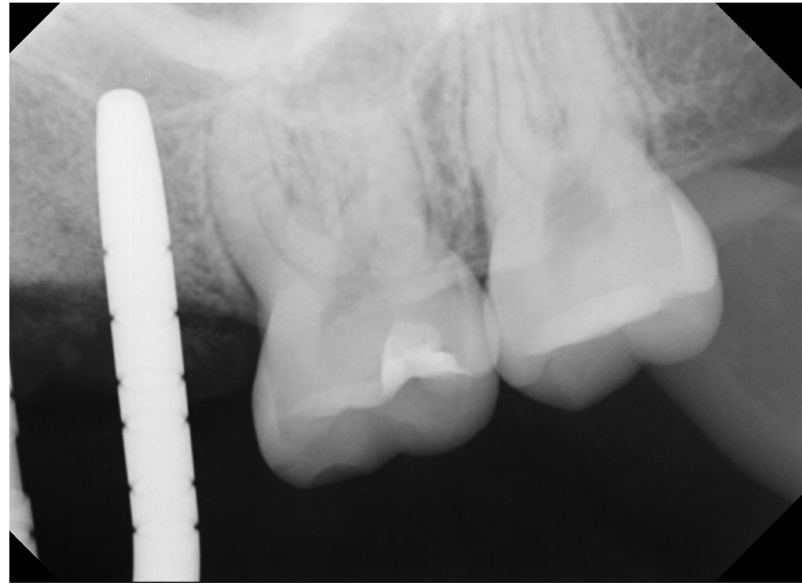
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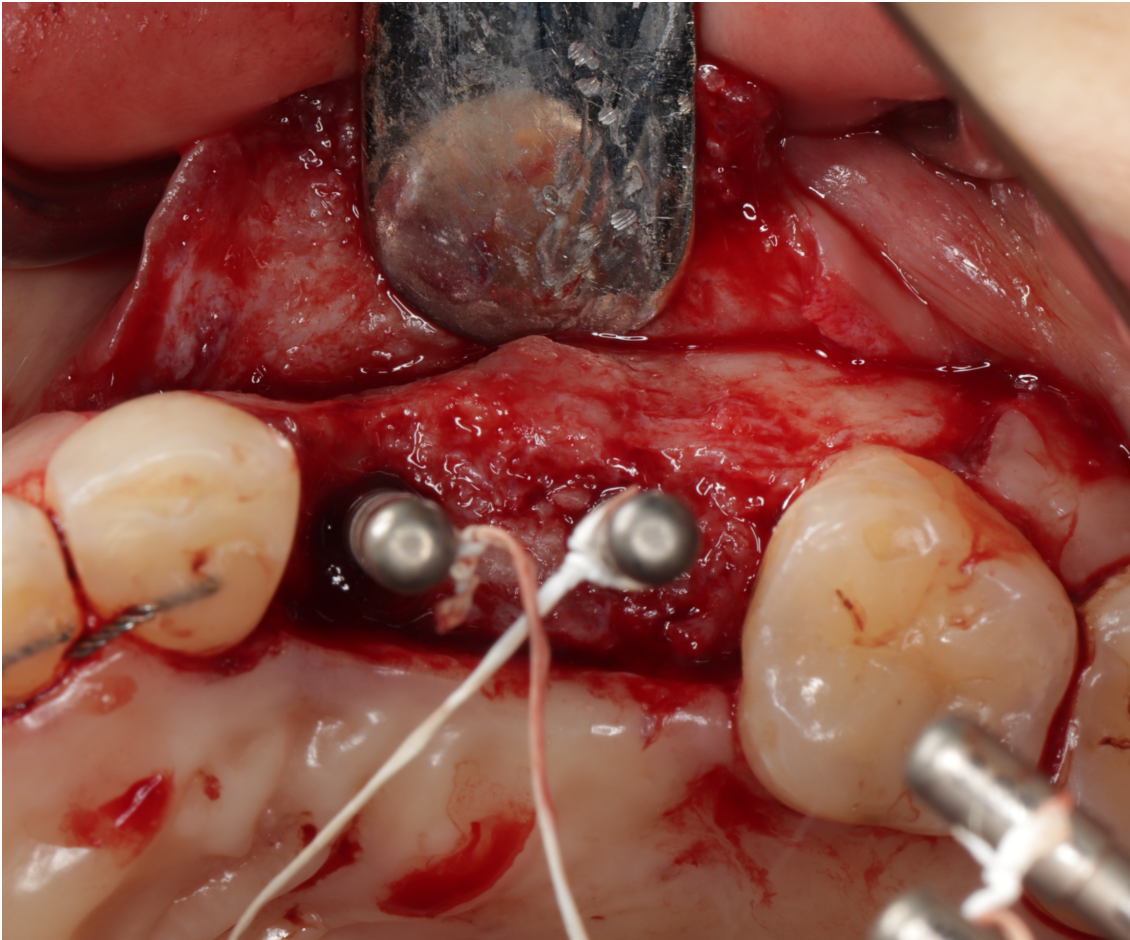


CRESTAL SINUS LIFT PROTOCOL I

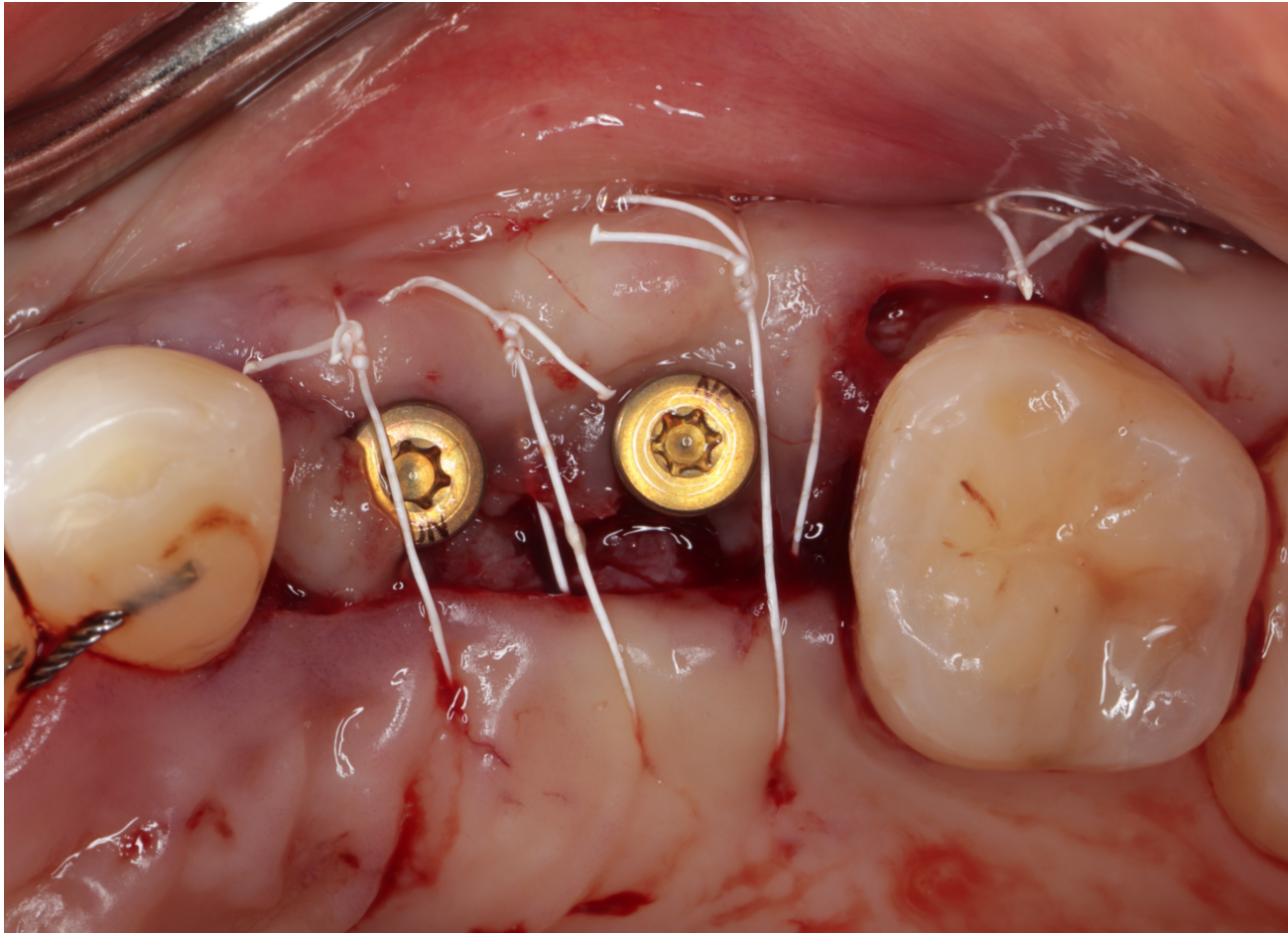
- MEASURE BONE HEIGHT TO SINUS FLOOR
- PILOT DRILL 1 MM BELOW THE SINUS FLOOR
- DENSAH® BUR (2.0) IN OD MODE TO SINUS FLOOR
- ENTER WITH DENSAH® BUR (3.0) IN OD MODE UP TO 3MM PAST THE SINUS FLOOR
- DENSAH® BUR (4.0), (5.0) OD MODE UP TO 3 MM PAST THE SINUS FLOOR, IF NEEDED
- USE DENSAH® BURS IN FULL STEP INCREMENTS FOR EXAMPLE:
2.0 MM, 3.0 MM, 4.0 MM, 5.0 MM

TRANSCRESTAL SINUS LIFT- OSTEOTOME + OSSEODENSIFICATION





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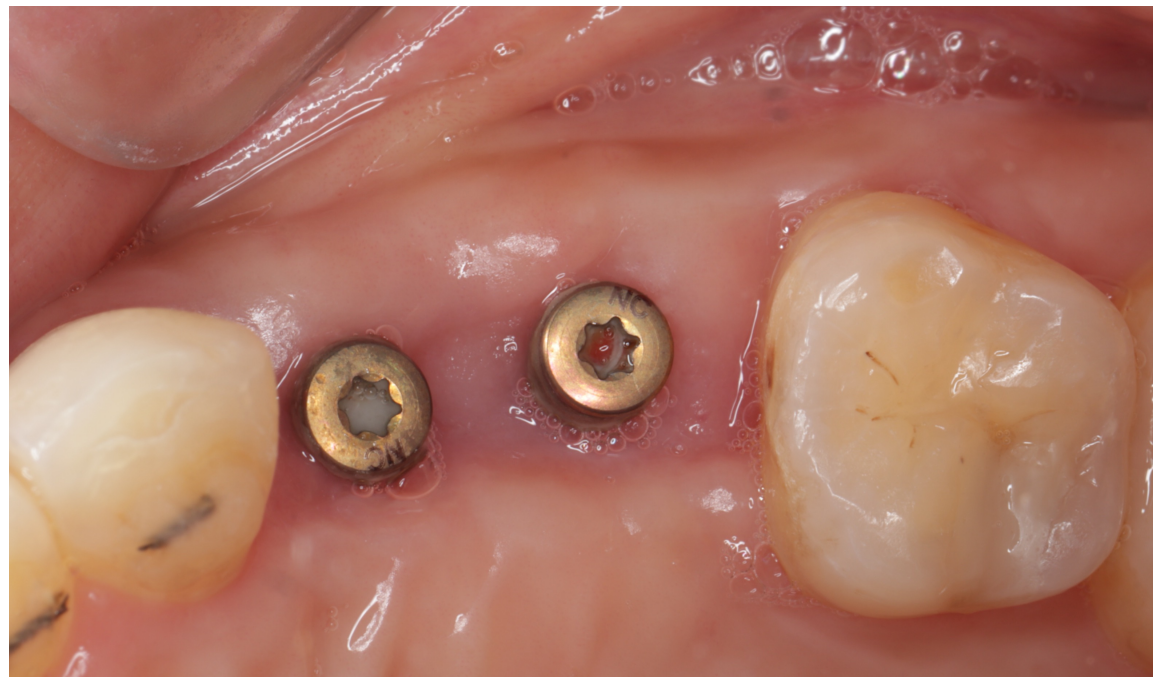
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2-WEEK POST-OP

Suture Removal



1-MONTH POST-OP



THANK YOU!
