

Case Presentation Template for AO Master Certificate

- You must have **signed informed consent** from patients (or relatives/guardians) before submitting an AO Case Presentation and ask them to sign the statement to confirm that the work is solely that of the applicant. Please provide the patient's contact details (with their permission) so that we might contact them directly if required to verify the authenticity of the application.
- A fee of \$XXX to the Academy of Osseointegration should be included with your completed application.

TITLE OF CASE
Diagnosis, Case Planning, Surgical Treatment, Restorative Treatment and Outcome of Mandibular Implant-Retained Overdenture
Clinician Name:
Christopher A. Barwacz, D.D.S.
SUMMARY <i>Up to 150 words summarising the case presentation and outcome</i>
<p>A 68 y.o. female patient presented to clinic with chief concern: <i>"I have inadequate retention of my lower denture to chew the foods I want to eat."</i> Her medical history and dental history was reviewed as well as radiographs and her existing, recently-fabricated CU/CL dentures. Treatment options were discussed from incorporation of denture adhesive (no prosthodontic changes), overdenture therapy, to complete fixed-hybrid conversion. The patient elected for two mandibular implants and conversion of her existing CL denture to an implant-retained overdenture with locator attachments. This case presents all aspects concerning the conversion of the patient from a mandibular denture to an implant-retained overdenture. Diagnostic information, surgical template verification, osteoplasty with implant placement, and denture conversion are all discussed. The patient's outcome was very successful and the patient's chief complaint was addressed in a satisfactory manner.</p>
BACKGROUND <i>Up to 60 words of why you think this case is important</i>
<p>This case represents a common complaint (instability) of patients with mandibular complete dentures. Two endosseous dental implants and conversion with locator retention components represents a relatively simple and feasible method to improve retention and stability, thereby meeting this patient's request to chew more complex foods that she could not masticate with her original prosthesis.</p>

CASE PRESENTATION *Presenting features, dental/social/family history etc.*

Patient – 72 year old, Female

Health Hx – Allergy to Penicillin, hypertension (controlled), fibromyalgia, depression, ASA Class II

Dental Hx – Edentulated 15 years earlier, has worn two sets of dentures prior to the current set recently being fabricated 4 months earlier.

- Oral Cancer Screening - Negative
- Patient is philosophical and has had positive experiences with dentures in past
- Mandibular residual ridge is uneven, with knife-edge crestal anatomy
- Patient is well-educated on dental implant therapy, and has asked many pertinent questions leading up to case acceptance.

TREATMENT PLAN *by bullet point*

- Diagnostic Casts, Radiographs – Pano
- Duplication of current mandibular denture
- Osteoplasty of mandibular ridge to facilitate implant placement
- Implant placement #22, 27 Straumann SLActive 4.1 RN x 10.0 mm
- Soft-tissue reline of existing mandibular denture
- Retrofit of mandibular denture to locator components via indirect, laboratory-processed protocol

OUTCOME AND FOLLOW-UP

1 week post-surgical placement of implants #22, 27 – no signs of infection

1 month post-surgical placement of implants #22, 27 – no signs of infection, site healing well

6 weeks post-surgical placement of implants, verified stable osseointegration and placement and torqued Locator abutments and facilitated abutment-level impression for lab processing

6 weeks and 2 days post-implant placement – verified fit of overdenture intraorally after receiving processed overdenture from laboratory, then selected 3.0 lb pink retentive elements

8 weeks post-implant placement – 10 days follow-up of overdenture, pt. reported no problems, no need for adjustments

DISCUSSION *including very brief review of any complications or problems and how they were handled*

- Patient was educated about need for osteoplasty at time of implant placement, and therefore a need for a laboratory reline/processing of denture to facilitate optimal fit of overdenture post-healing.
- Patient tolerated surgery and soft-tissue reline very well
- Healing uneventful, patient very pleased with final prosthetic/retentive outcome, reports at post-op visits to have significantly improved masticatory function

LEARNING POINTS/TAKE HOME MESSAGES *3 to 5 bullet points*

- Case selection is important, as well as interdisciplinary communication regarding desired implant placement location relative to existing prosthesis. Surgical template was advantageous to successful outcome.
- Sometimes bone removal is necessary to create adequate prosthetic space for overdenture prosthetic components, as well as to facilitate optimal implant positioning.
- Evaluation of patient tolerance of retentive elements is important, depending on strength and dexterity of the particular patient (stronger is not always better).

Statement of Truth

I, *Christopher A. Barwacz, DDS*, attest to being the providing clinician for all of the treatment indicated in the above case presentation. I further confirm that all clinical photographs and radiographs are original and have not been tampered with or materially altered in any way to enhance the appearance or outcome of the case presented.

Signature: 

Date: 04/27/2015

PATIENT CONSENT AND STATEMENT OF AUTHENTICITY

I, [*Jane Doe*], attest to being the patient represented in the attached case presentation template titled **Conversion of a mandibular complete denture to an implant-retained mandibular overdenture** I can verify that **Dr Barwacz** was the providing clinician for all of the relevant treatment indicated and that the case presented is a true representation of the work undertaken by the applicant.

I consent to all material including clinical photographs (including any full face photos), radiographs and any relevant medical, dental and/or social history being included in this case presentation and understand that it may be reviewed by other clinicians on behalf of the Academy of Osseointegration.

I agree to full disclosure of my contact details as stipulated below and agree to be prepared to receive an unsolicited communication from the Academy of Osseointegration or its representative in order to further verify the veracity of this application, should it be deemed necessary.

Contact Details

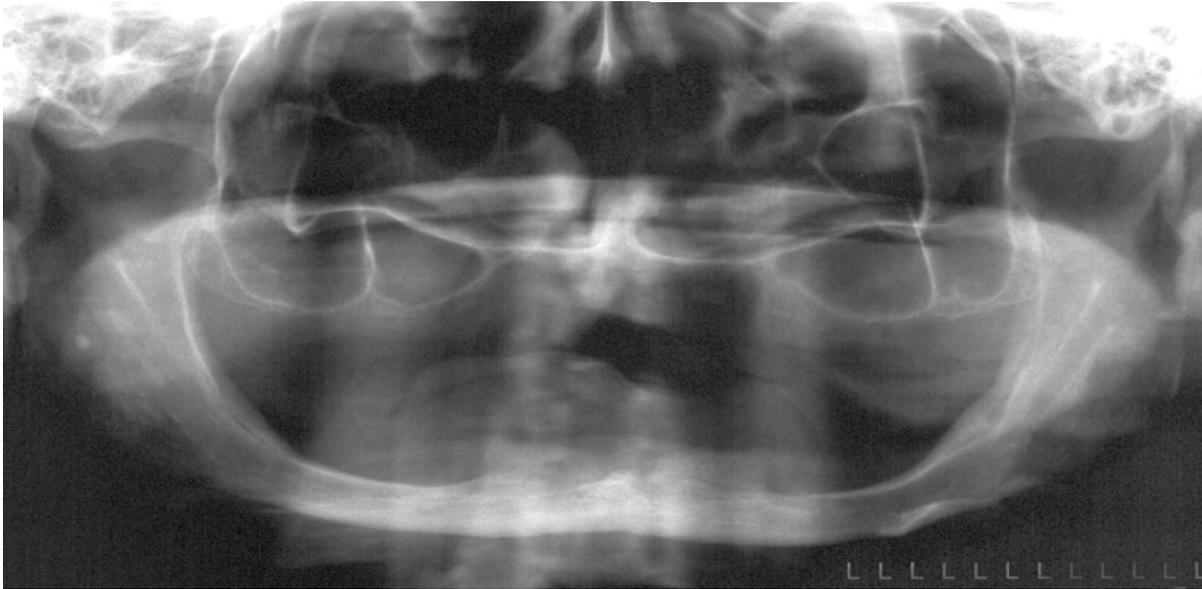
Address: W425 Dental Science Building, The University of Iowa College of Dentistry

Telephone: 319-384-3002

Email: chris-barwacz@uiowa.edu

IMAGES

- **Diagnostic panoramic radiograph**



- **Clinical pre-operative view of mandibular residual ridge**



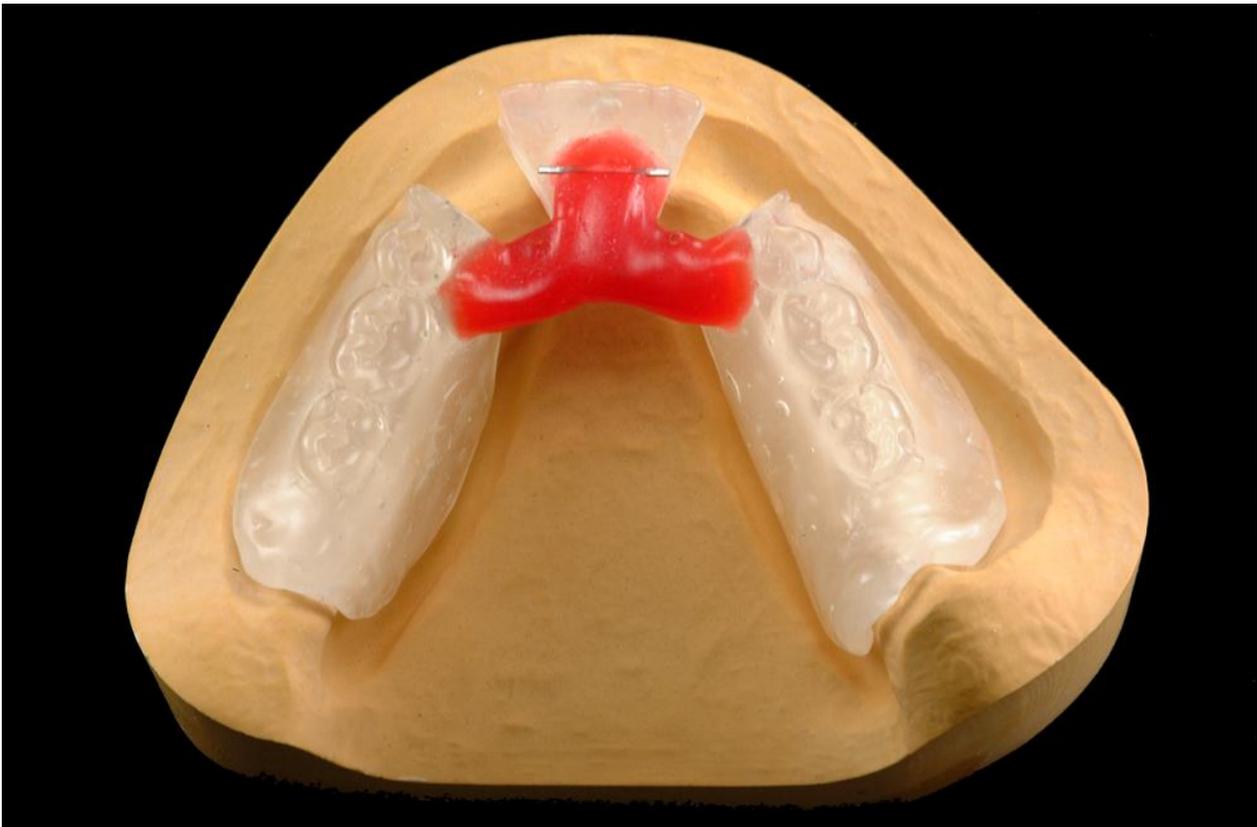
- **Diagnostic mandibular cast**



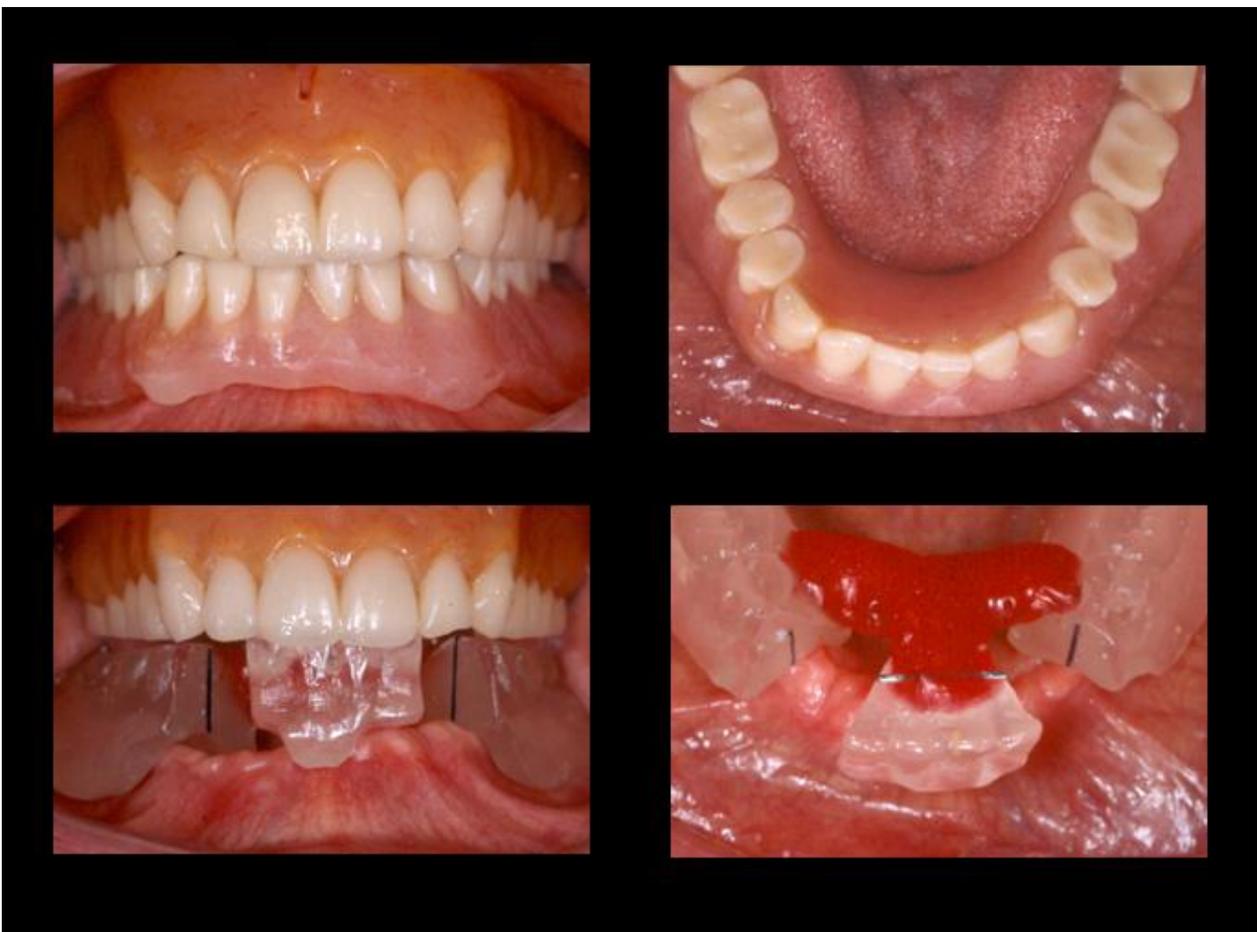
- **Duplication of mandibular denture into radiographic/surgical template**



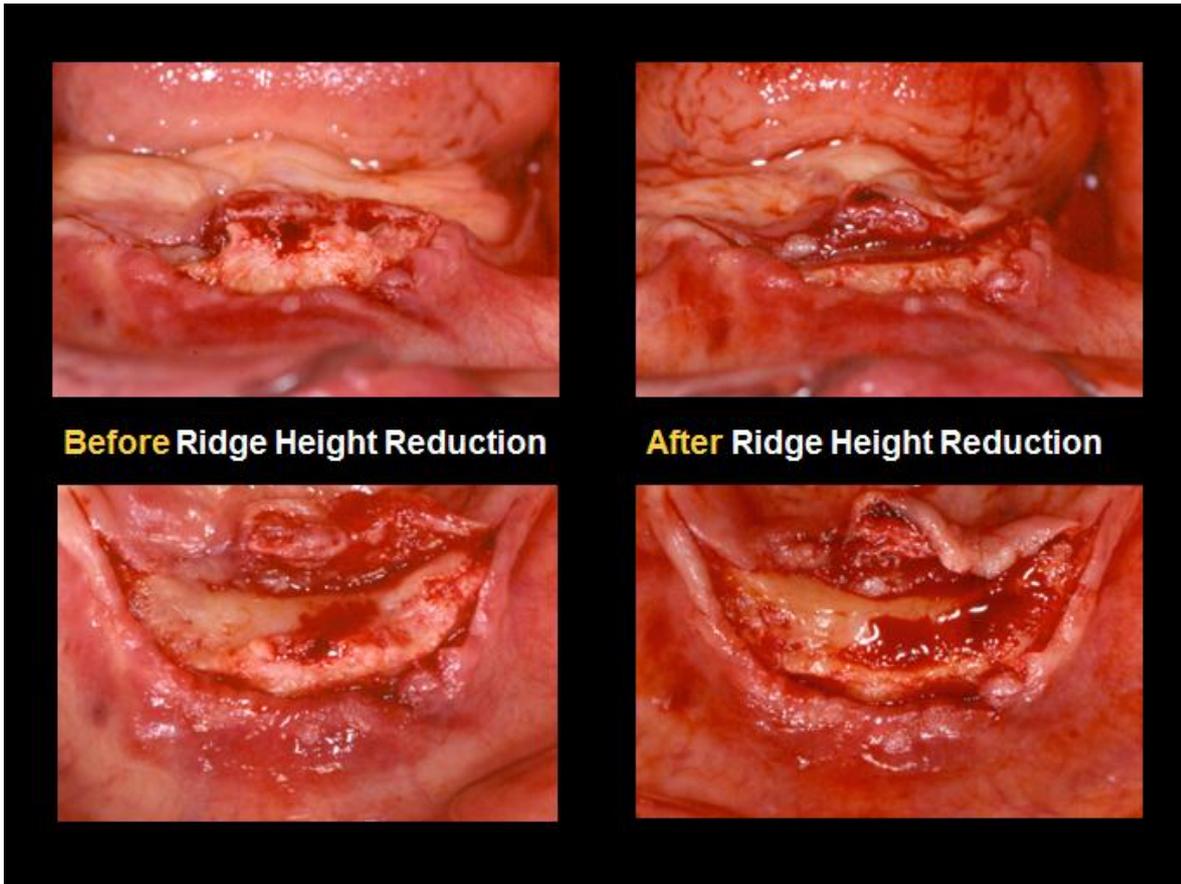
- **Modification of radiographic/surgical template to facilitate implant placement**



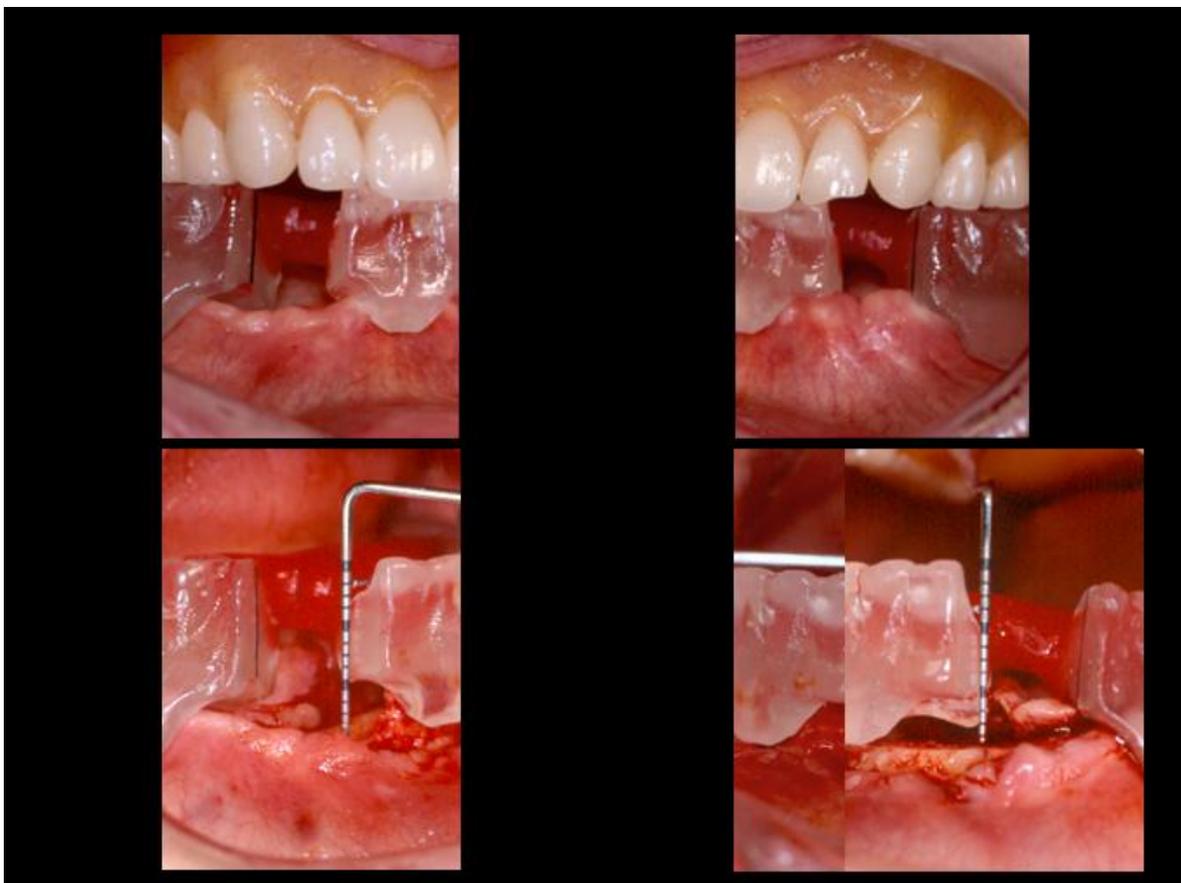
- **Pre-surgical view of existing mandibular denture and verification of surgical template intraorally.**



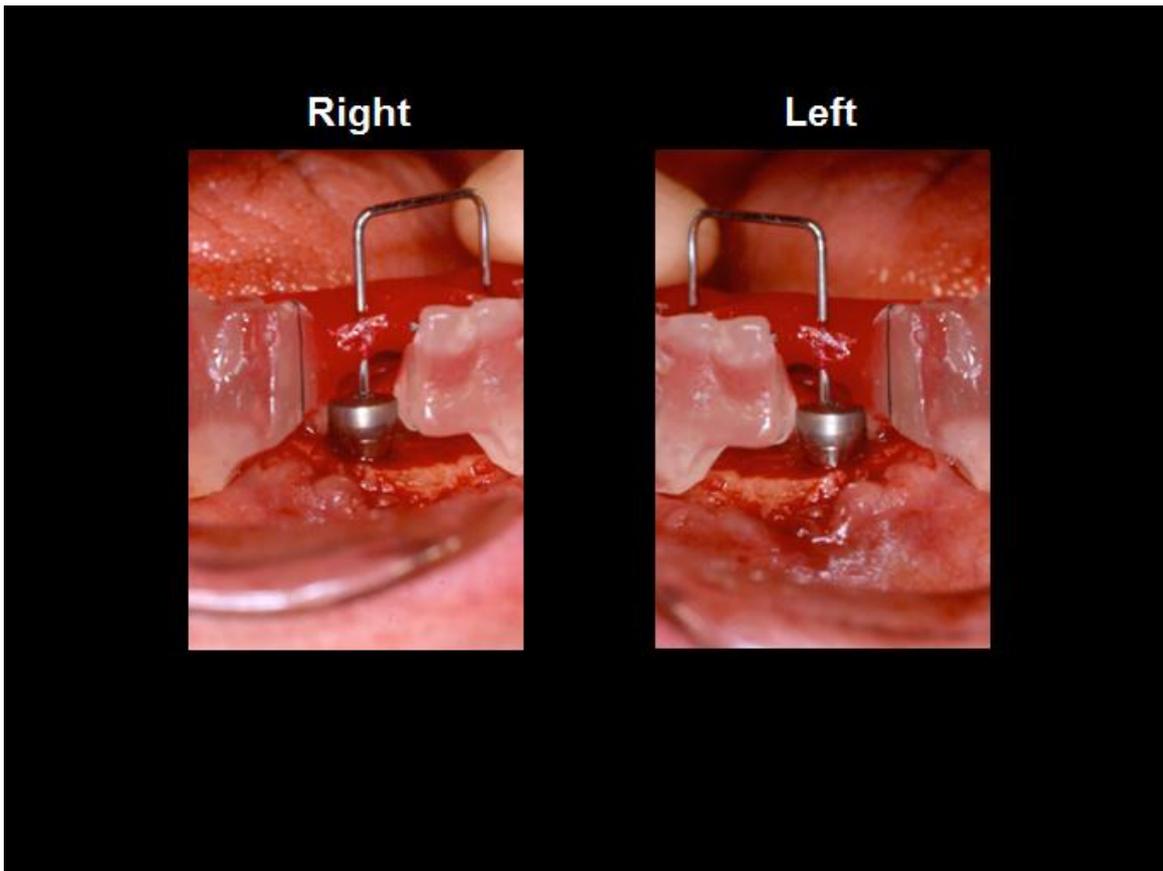
- **Surgical views of osteoplasty to facilitate implant placement**



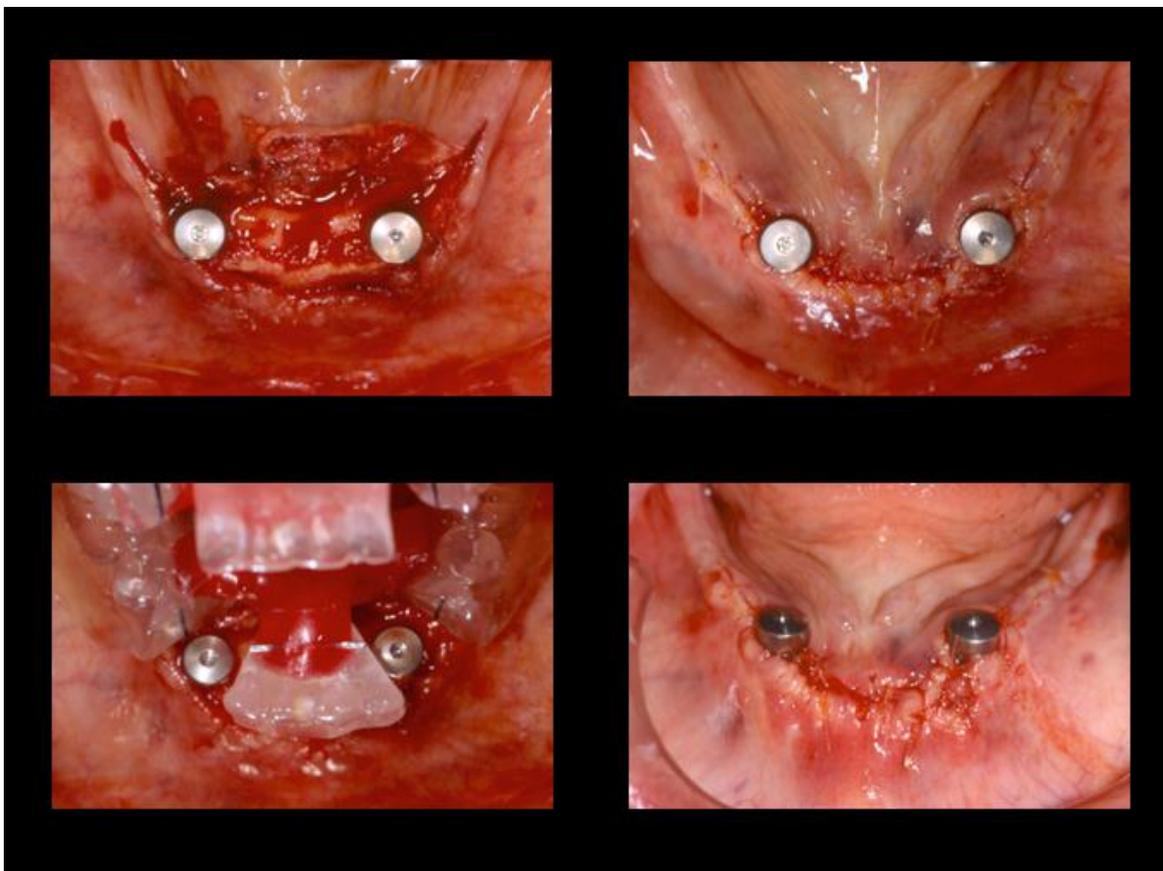
- **Verification of adequate prosthetic space and osteotomy location**



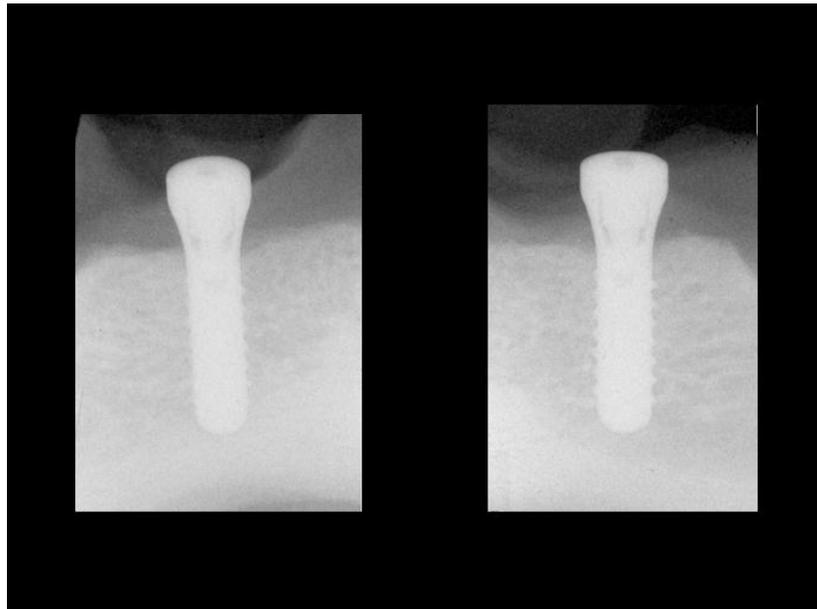
- **Clinical view of implant placement relative to surgical template/guide**



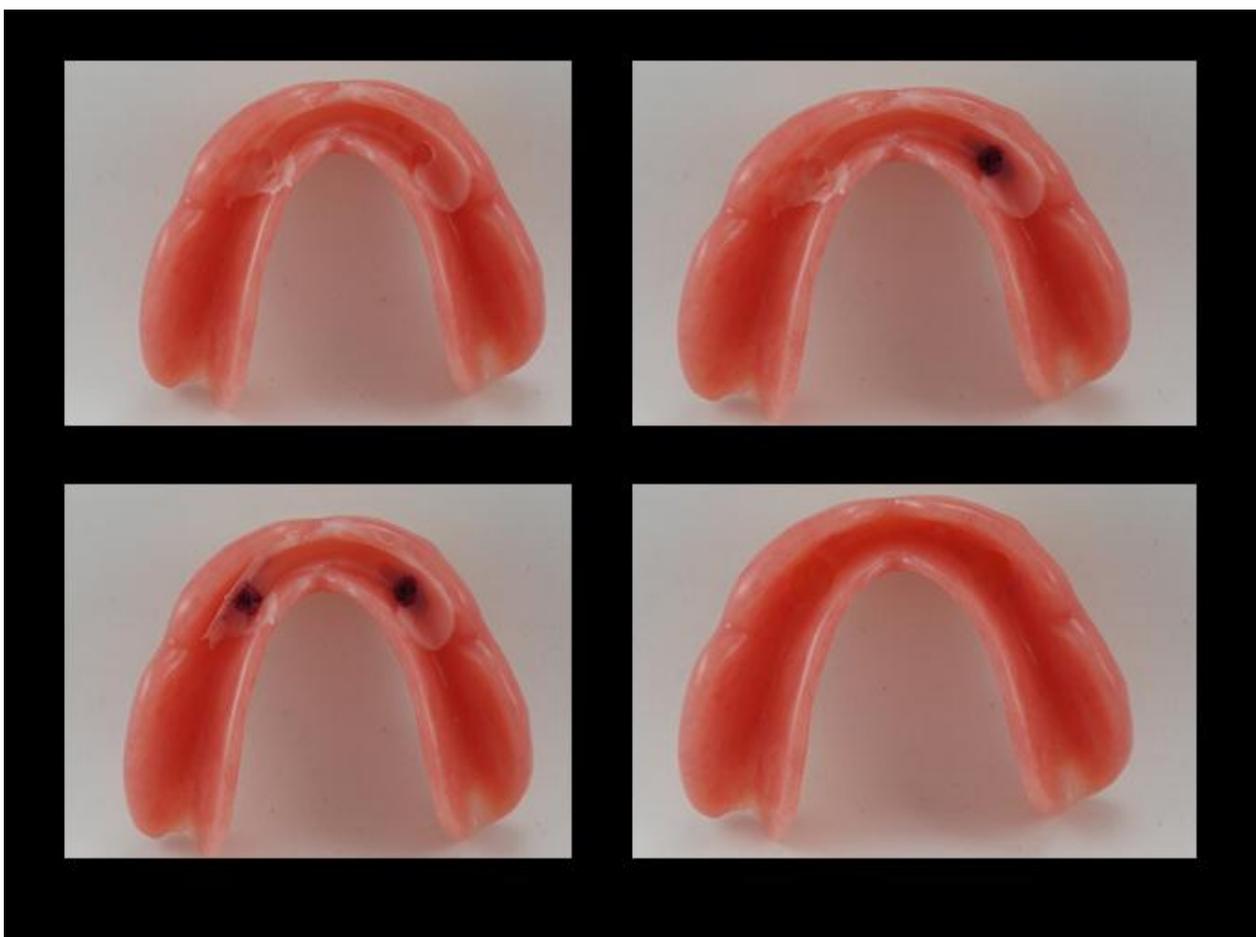
- **Clinical view immediately post-placement**



- Radiographic view of implants immediately post-surgically (Straumann SLActive 4.1 RN x 10.0 mm)



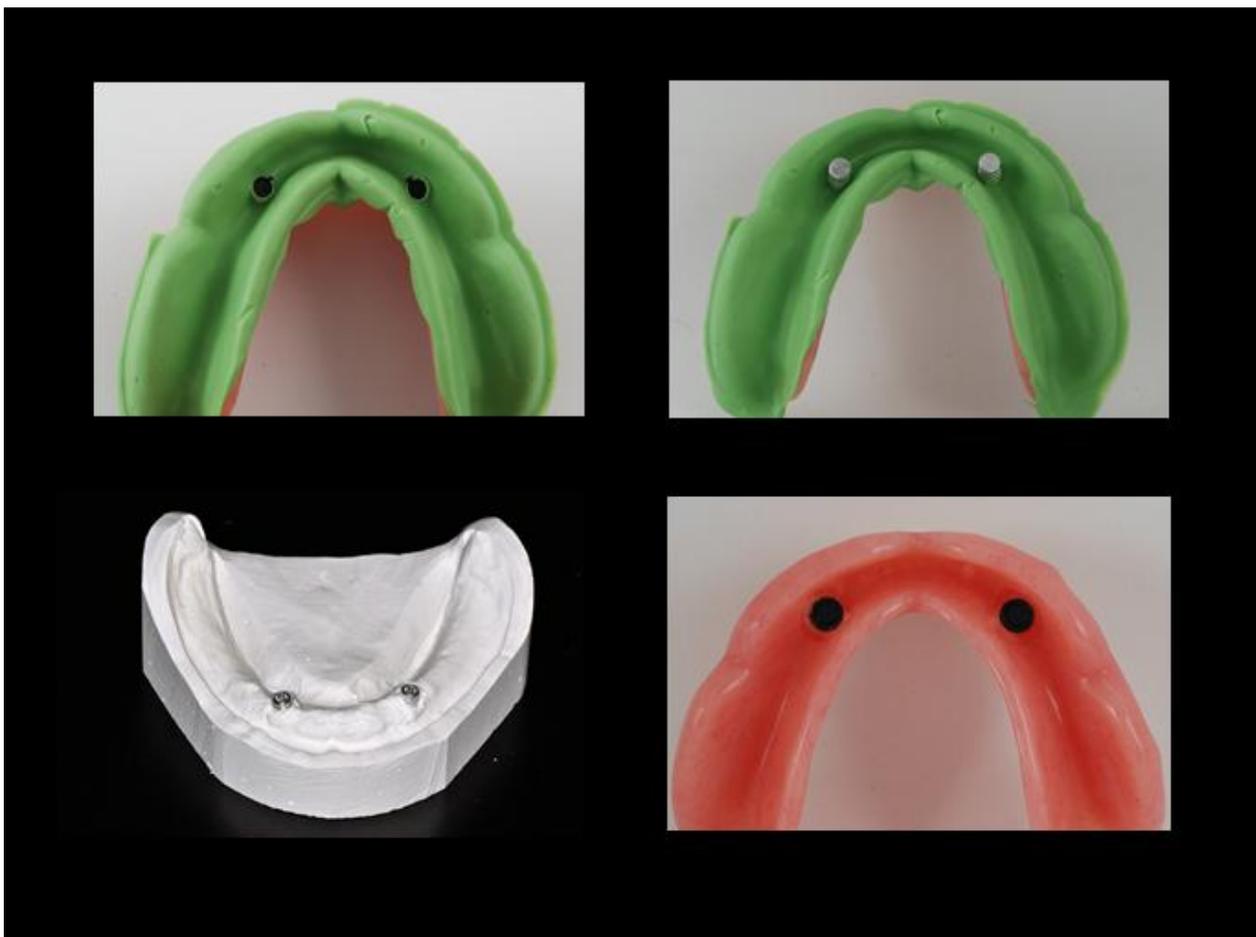
- Preparation of the mandibular denture for a soft-reline



- **Placement of the soft-tissue reline**



- **After osseointegration (6 weeks post-placement), Locator abutments were torqued to 35 Ncm, and abutment-level impressions obtained to facilitate a laboratory-processed overdenture**



- **3.0 lb Locator male retentive inserts (pink) were placed into the housings captured in the overdenture, and verified to be of proper retentive strength for the patient to adequately remove and insert, the patient was extremely satisfied with the final result**

