

Tooth-Borne Overlay Denture for the Correction of Lingually Inclined Mandibular Dentition, a Collapsed Occlusal Vertical Dimension and Traumatic Occlusion

IAG Congress Table Clinic

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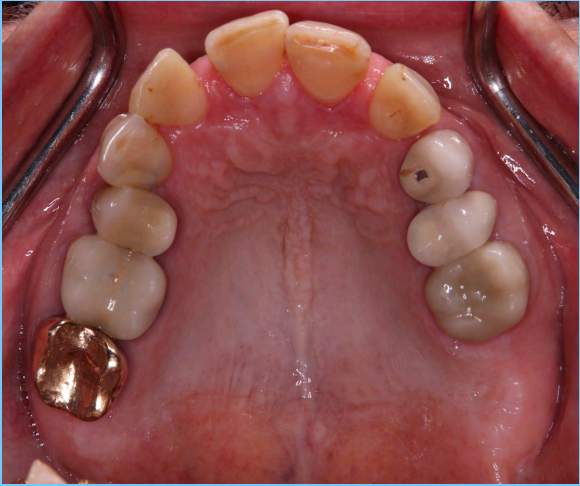
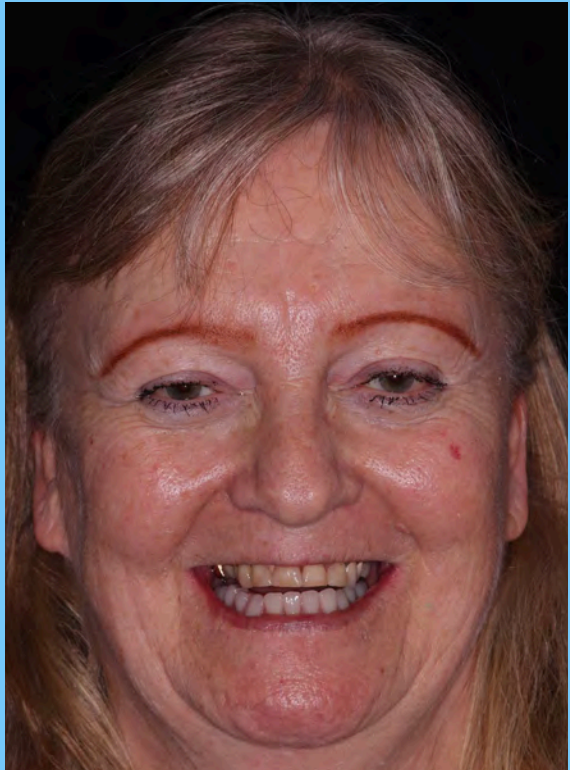
Introduction

A 60 y/o female presented with maxillary and mandibular traumatic occlusion and a severe case of lingually inclined mandibular dentition and collapsed occlusal vertical dimension.



Treatment Planning

- Mandibular TX options included:
1. Ortho + crowns
 2. ISFDP
 3. Overdenture (implants or root locators)
 4. Tooth-borne overlay denture



Testing the New OVD

1. Determination of new OVD
2. Orthosis fabrication
3. Fabrication of interim overlay denture



Definitive Prosthesis

The newly established OVD was carried over to the interim and final tooth-borne overdentures. This conservative treatment improved esthetics and function.





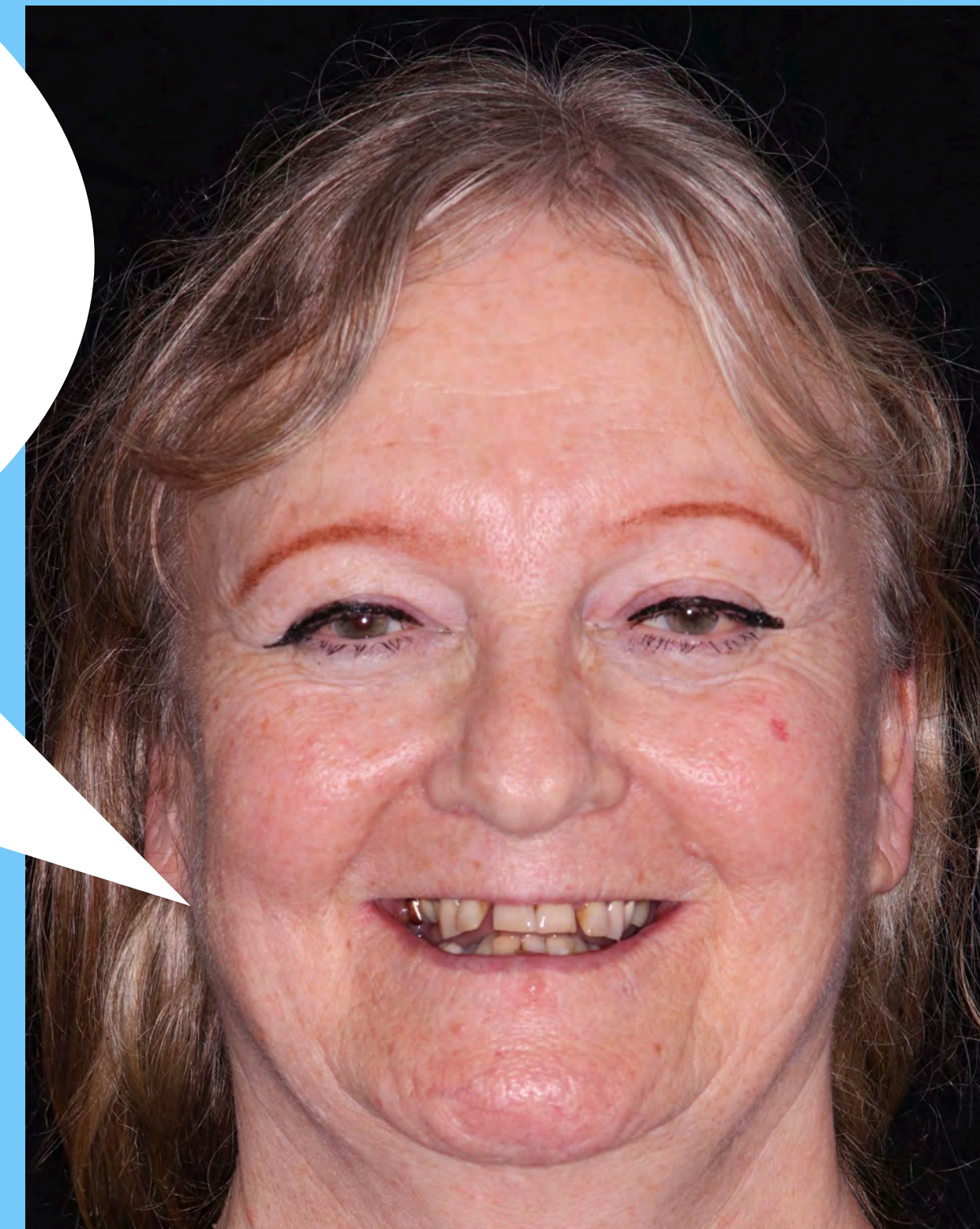
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Initial Presentation

Chief Complaint

"It hurts everywhere in my mouth when I chew, and I want to be able to smile again."

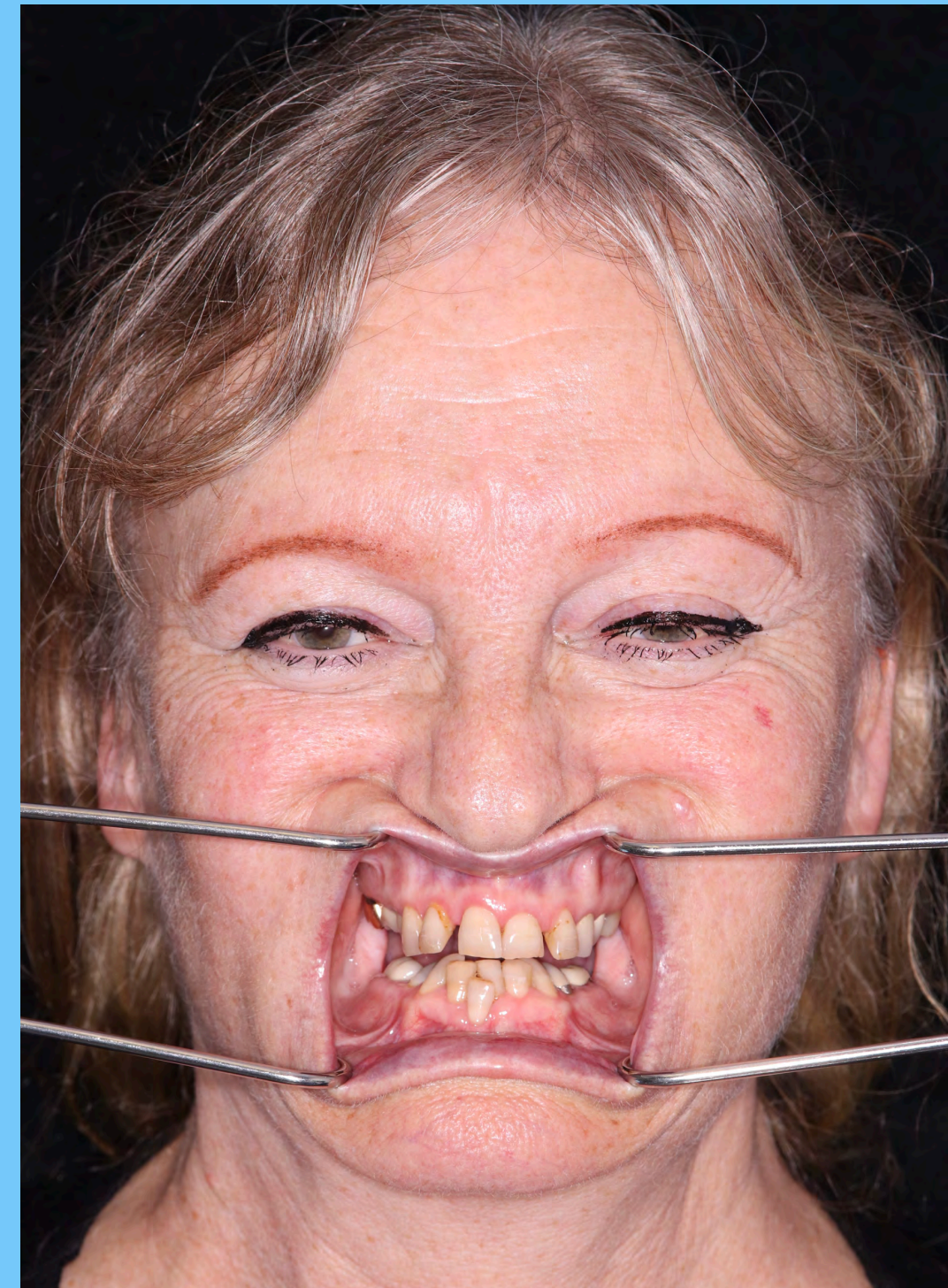




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Initial Presentation



Extraoral Exam

- Bilateral asymptomatic crepitus
- No lymphadenopathy or edema
- Collapsed occlusal vertical dimension



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Initial Presentation

Maximum Intercuspation



Intraoral Exam

- Maxillary anterior diastemas
- Crowding
- Malocclusion
 - Severe lingually inclined mandibular dentition (Saravanan et al., 2010)
- Maxillary & mandibular traumatic occlusion
- Collapsed occlusal vertical dimension





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Initial Presentation

Protrusion



Intraoral Exam

- Maxillary anterior diastemas
- Crowding
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Initial Presentation

Right Side Lateral Excursive



Intraoral Exam

- Maxillary anterior diastemas
- Crowding
- Malocclusion
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Initial Presentation

Left Side Lateral Excursive



Intraoral Exam

- Maxillary anterior diastemas
- Crowding
- Malocclusion
 - Severe lingually inclined mandibular dentition
- Maxillary & mandibular traumatic occlusion
- Collapsed occlusal vertical dimension



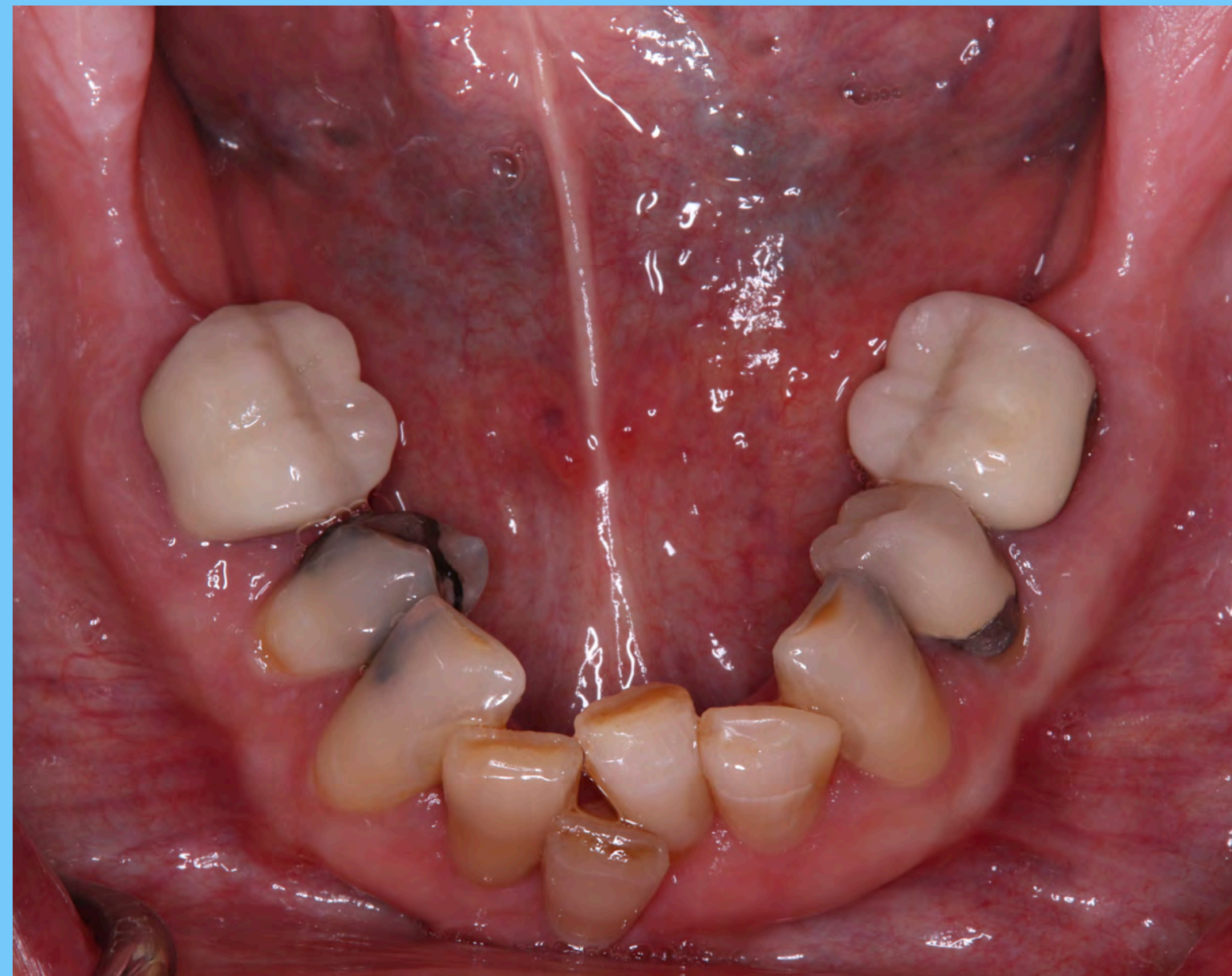


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Initial Presentation

Occlusal



Intraoral Exam

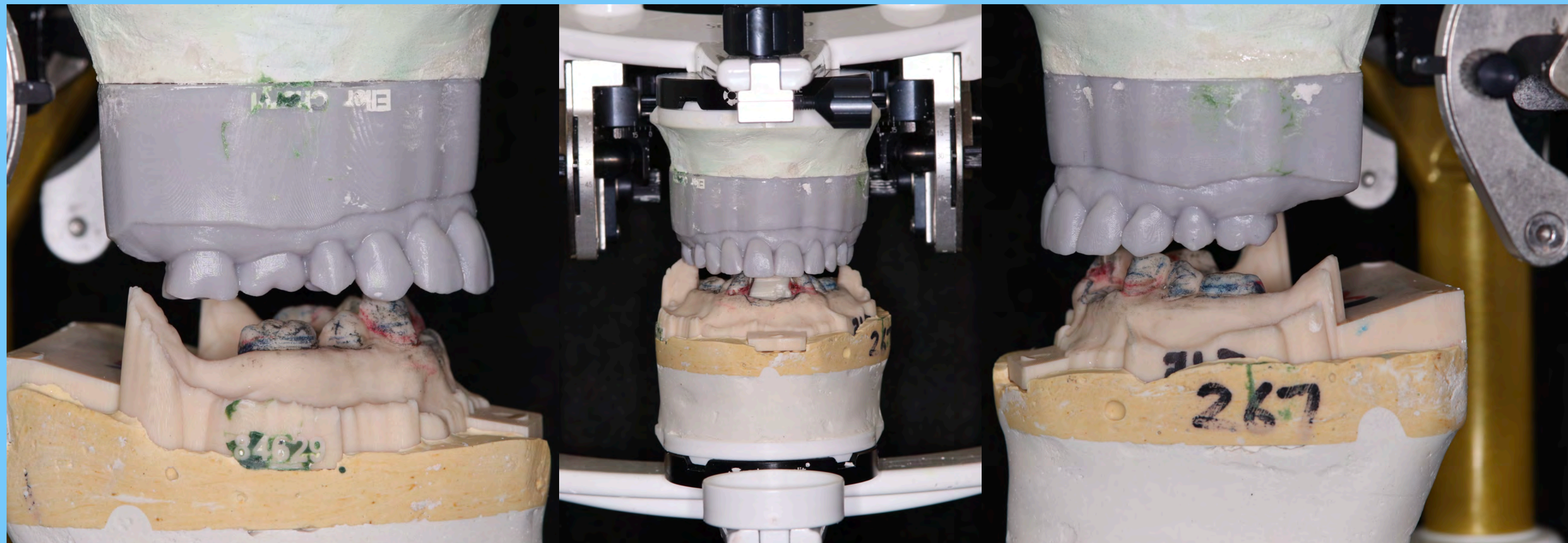
- Maxillary anterior diastemas
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Testing the Increased Occlusal Vertical Dimension



Procedure

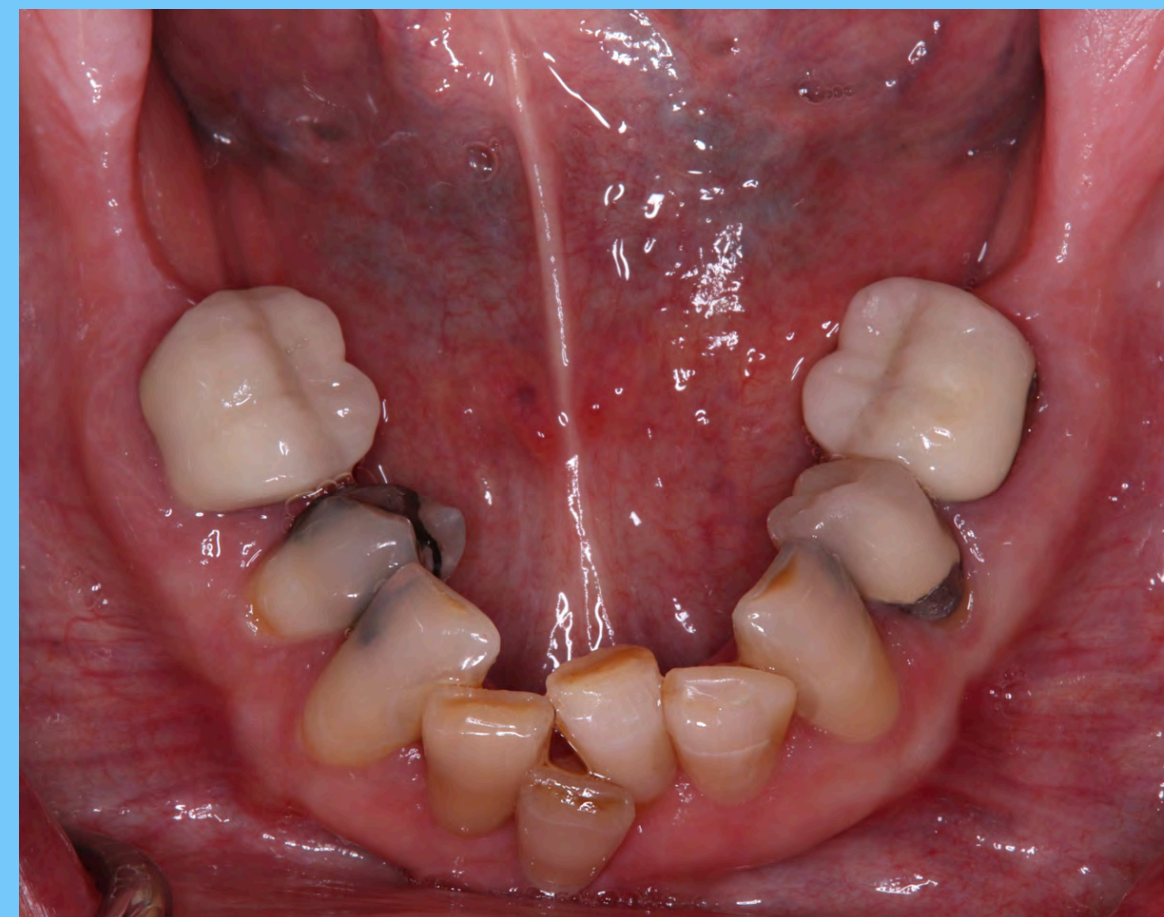
- Determined patient's physiologic rest position
 - Freeway space = 9 mm
- CR record obtained using a leaf gauge
- Increased OVD by 7 mm
- Mounted casts at increased OVD
- Occlusal guard fabricated



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Testing the Increased Occlusal Vertical Dimension



Procedure

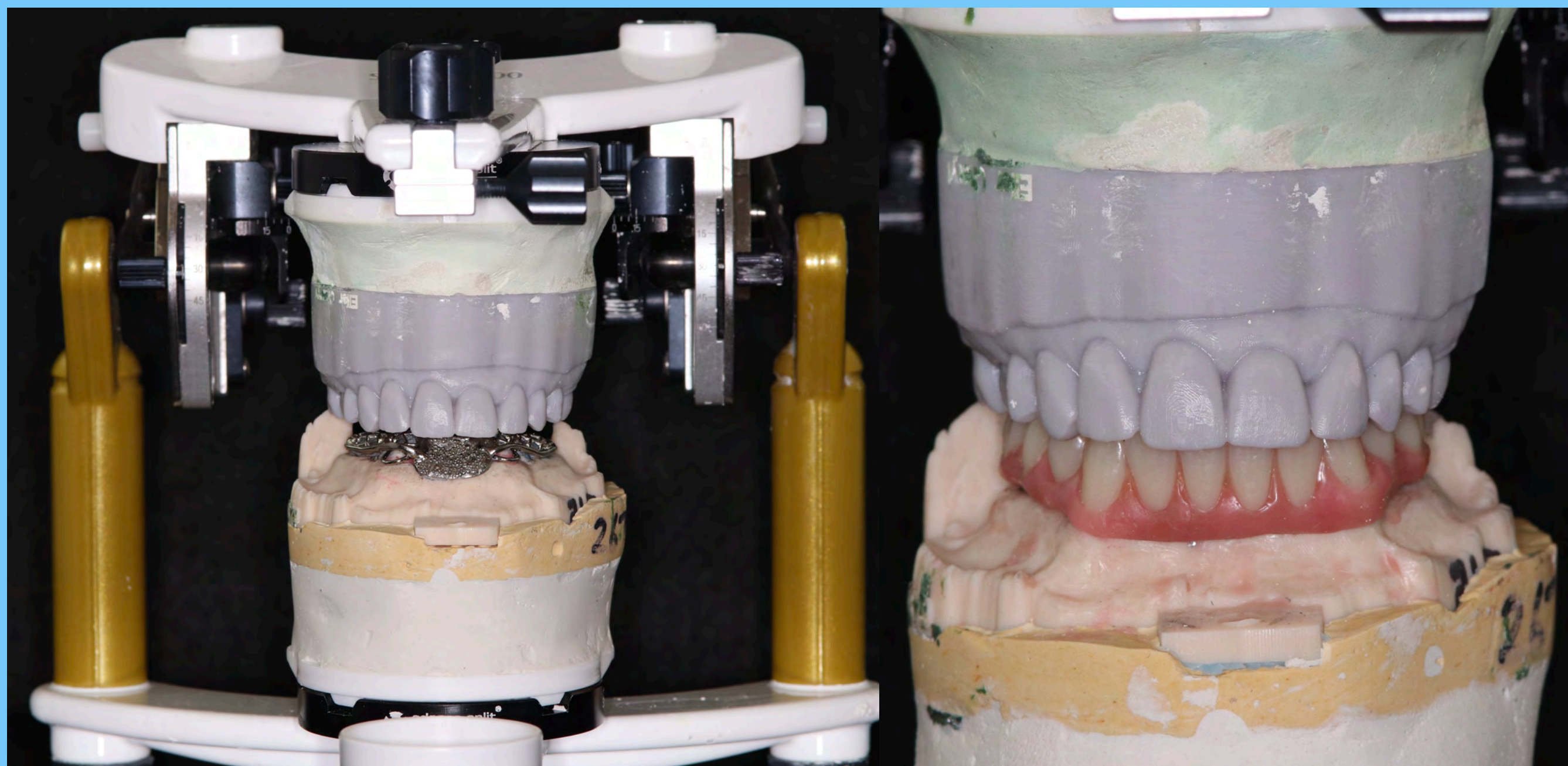
- Patient tolerated the occlusal guard well
- Symptoms of traumatic occlusion improved (Wank et al., 1981)
- OVD carried over to interim denture
- SR Phonares II denture teeth set over existing dentition
- Denture processed
- Patient wore this for 3 months
- Thorough OHI and Prevident 5,000



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Final Prosthesis Fabrication



Procedure

- Mandibular incisors extracted
- Same OVD carried over to definitive prosthesis



Framework Design

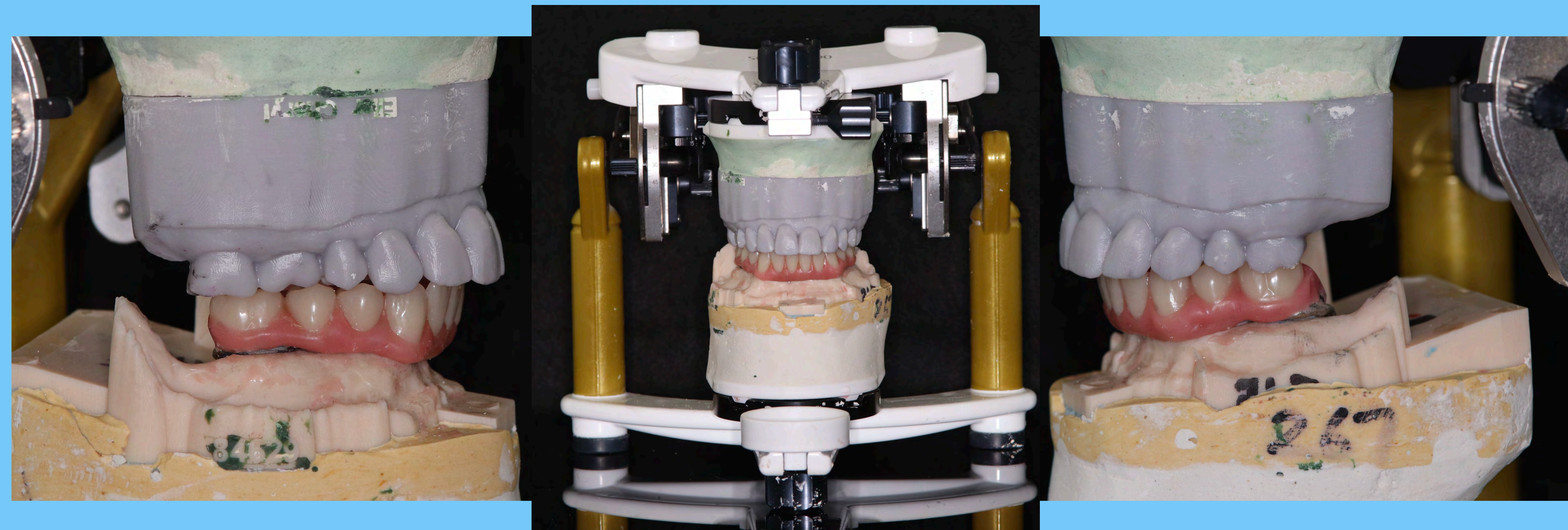
- Stops on occlusal surfaces of teeth
- Wrought wire clasps engaging mesial aspect of canines
- Circumferential clasps engaging mesiolingual aspect of molars



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Final Prosthesis Fabrication





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Final Prosthesis



Results

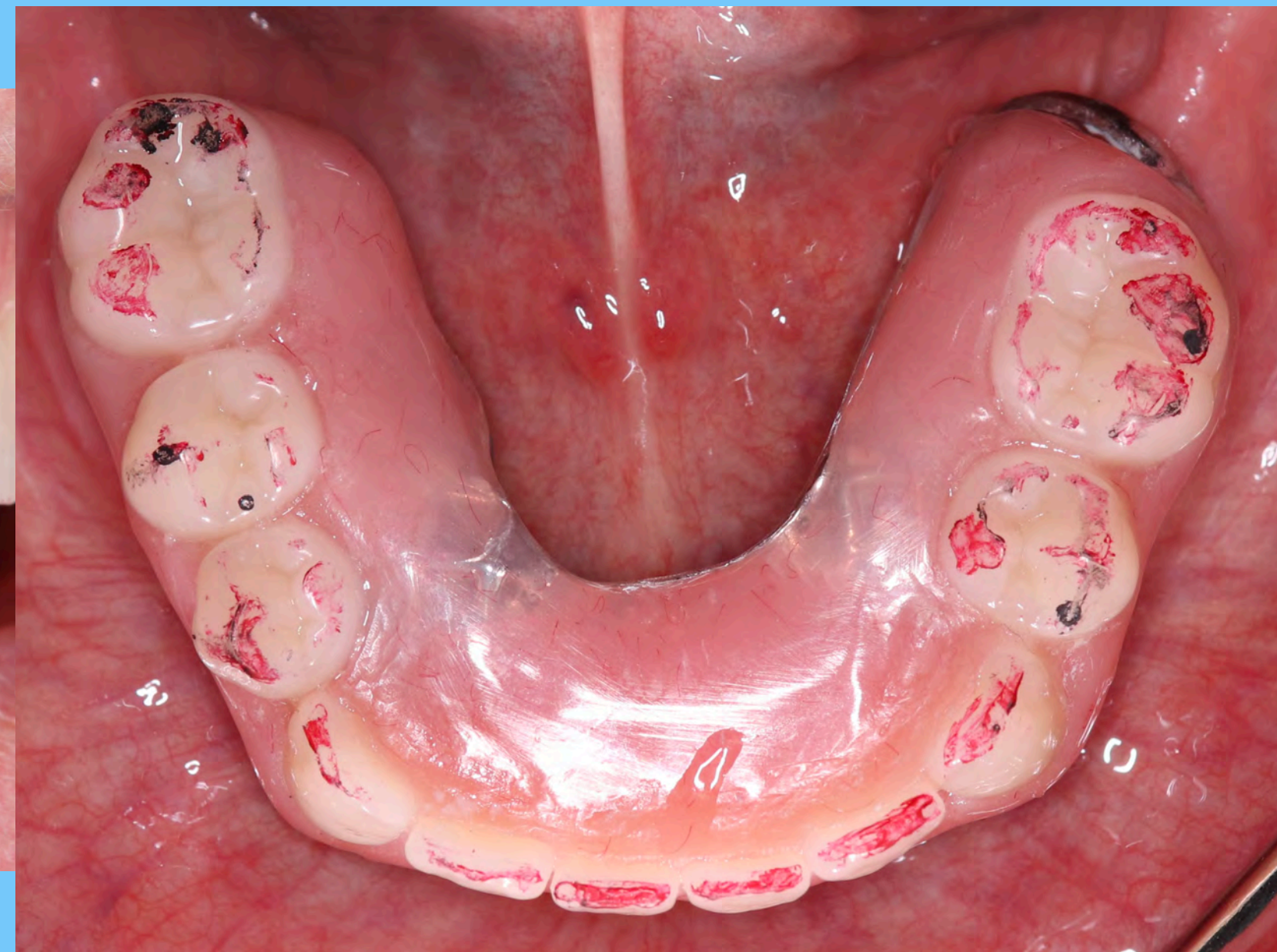
- Improved esthetics and function



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Final Prosthesis





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Final Prosthesis



Procedure

- This conservative and reversible treatment helped establish a stable and healthy occlusion for a patient who was uncomfortable with the time commitment required for orthodontic therapy and without the financial means for mandibular extractions, implant placement and fabrication of an ISFDP.
- Patient is still functioning well after one year