

# Implant Failures in Geriatrics: Tailored Transitions for Terminal Dentition

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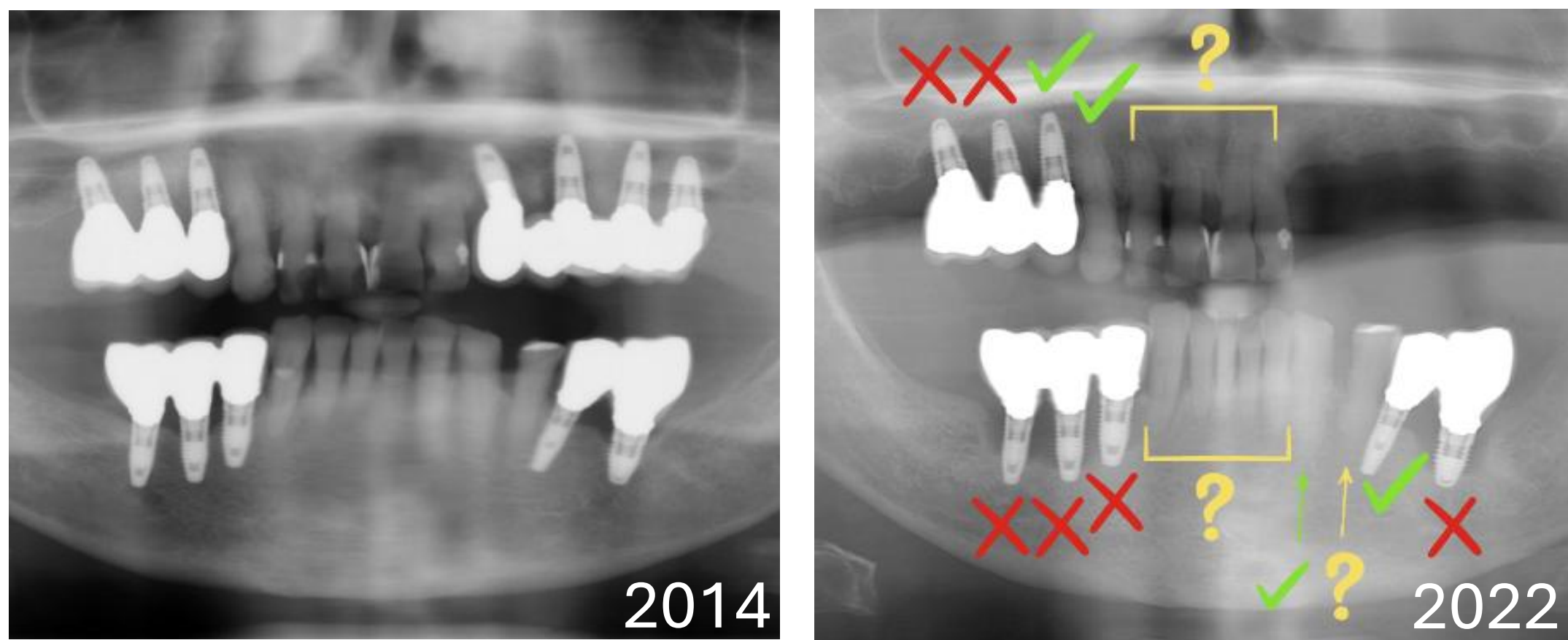


## Abstract

Partial edentulism is a prevalent condition which can be challenging to manage in the geriatric patient, especially when remaining teeth have a guarded prognosis. This case demonstrates a minimally invasive approach to fabricate RPDs at a recovered OVD using composite resin to form talon cusps on maxillary incisors which engage the framework. These cingula are intended to function as an indirect periodontal splint and improve RPD support and stability.

## Chief Complaint

An 80 year-old ASA II female patient presented with chief complaint of suboptimal function and esthetics along with failing implants and a severe gag reflex preventing use of her existing removable partial denture (RPD).



## Oral Status

- Non-physiologic occlusion due to reduced posterior support and malocclusion with irregular occlusal planes (extrusion of lower incisors), impinging vertical overlap, and loss of occlusal vertical dimension.
- Mx partial edentulism (Kennedy Class II) with a suboptimal transitional RPD and secondary occlusal trauma of maxillary incisors
- Her case was complicated by peri-implantitis, unfavorable periodontal support of remaining teeth, and a severe gag reflex.

### Implant history:

- 2006-2008: Implant placement (Nobel Replace trilobe)
- 2016: Upper left implants removed due to peri implantitis
- 2023: Cluster implant failure (Bidra et. Al 2025)

## Discussion

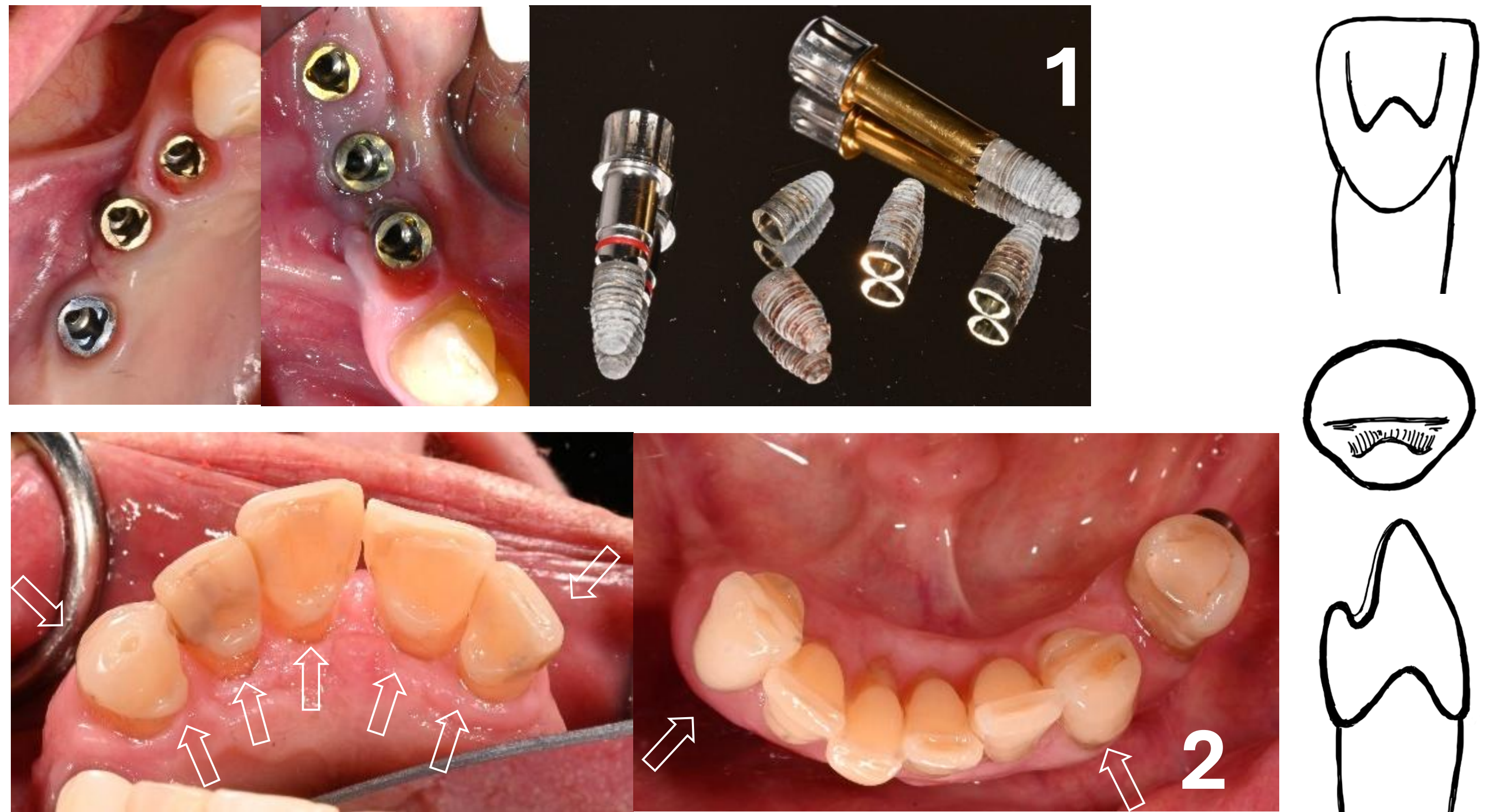
### Treatment options were presented. Key discussion points:

- Poor periodontal prognosis of maxillary incisors– surveyed crowns not recommended. Direct composite bonding suggested as alternative to facilitate RPD outcomes (Toth 1986, Zarrati 2010).
- Failing implants #3, 4, 28, 29, 30 were planned for removal with maintenance of #5 and #20 implants.
- Patient declines further implant placement and prefers to maintain natural teeth.

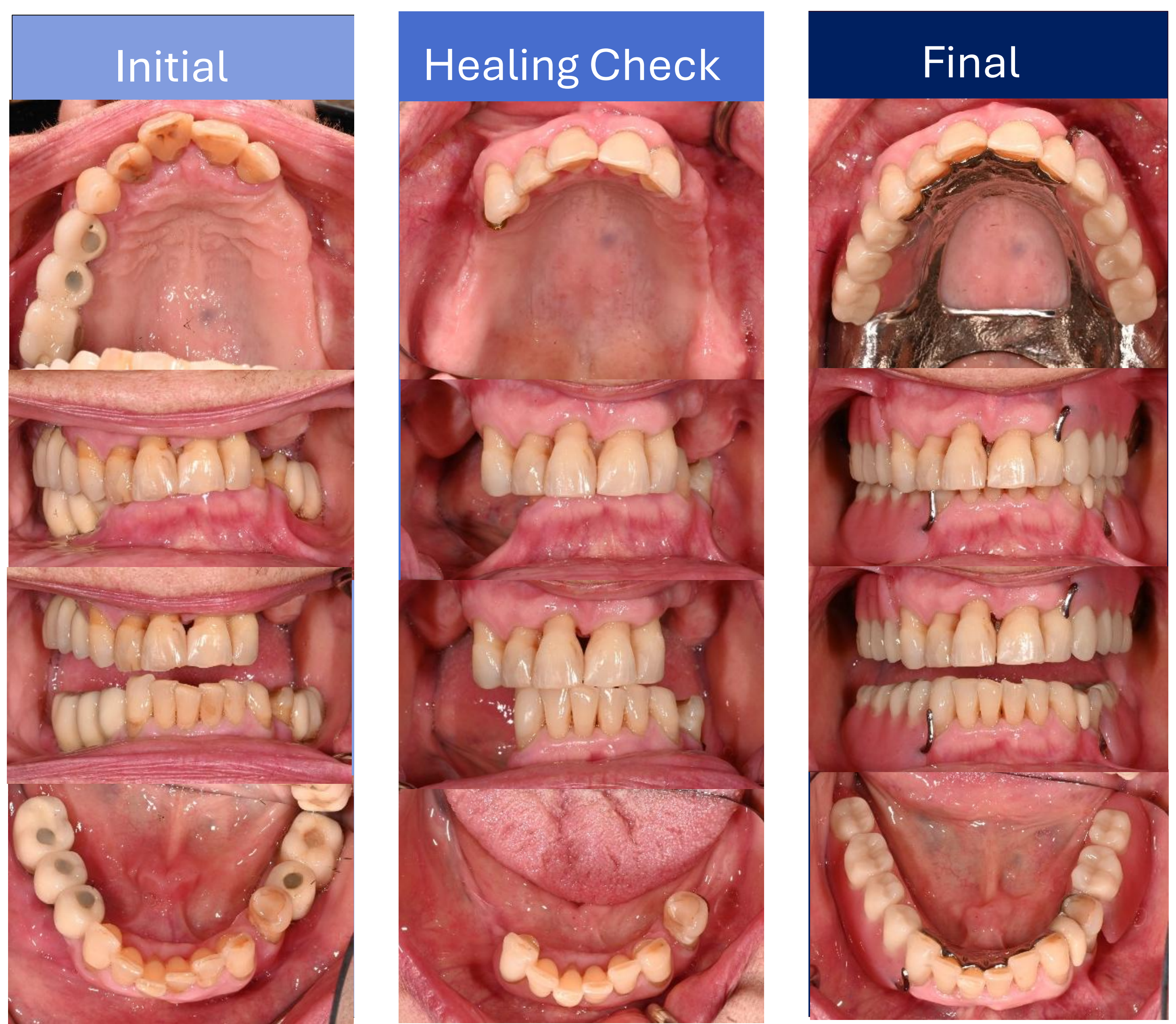
### Treatment Plan:

1. Implant removal followed by a 3-month healing period
2. Direct composite restoration of teeth #'s 6, 7, 8, 9, 10, 22, 27 and recontouring of lower incisors
3. Replacement of missing teeth with IS-RPD with locator attachments at a recovered occlusal vertical dimension

## Treatment Summary



## Timeline of Care



A mixed digital and conventional workflow was used. Locator attachment on #5 was picked up intraorally after RPD fabrication, contributing to excellent support, stability and retention. At 11-month follow-up the patient was complication-free and continues to be satisfied with her outcome.

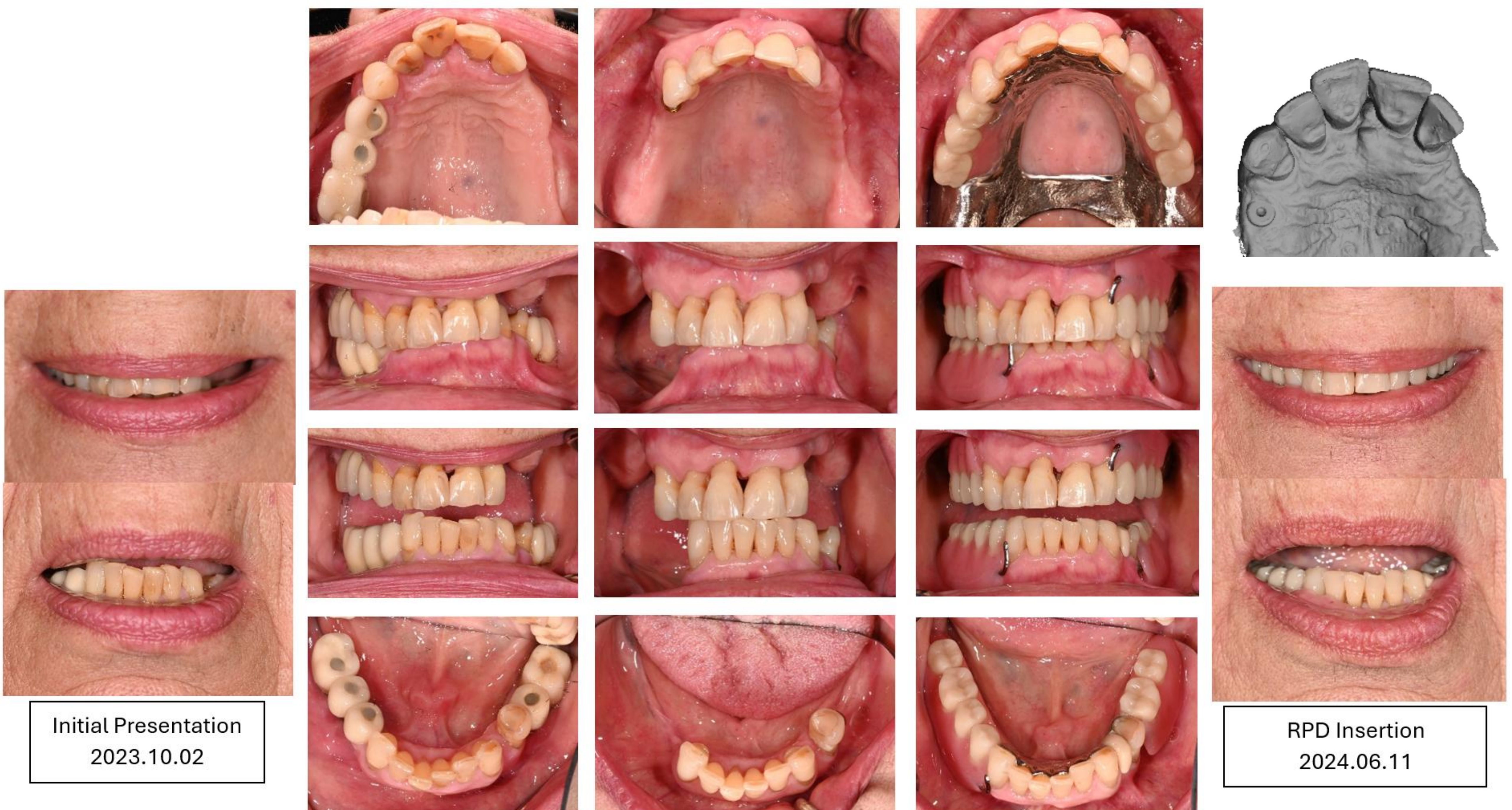
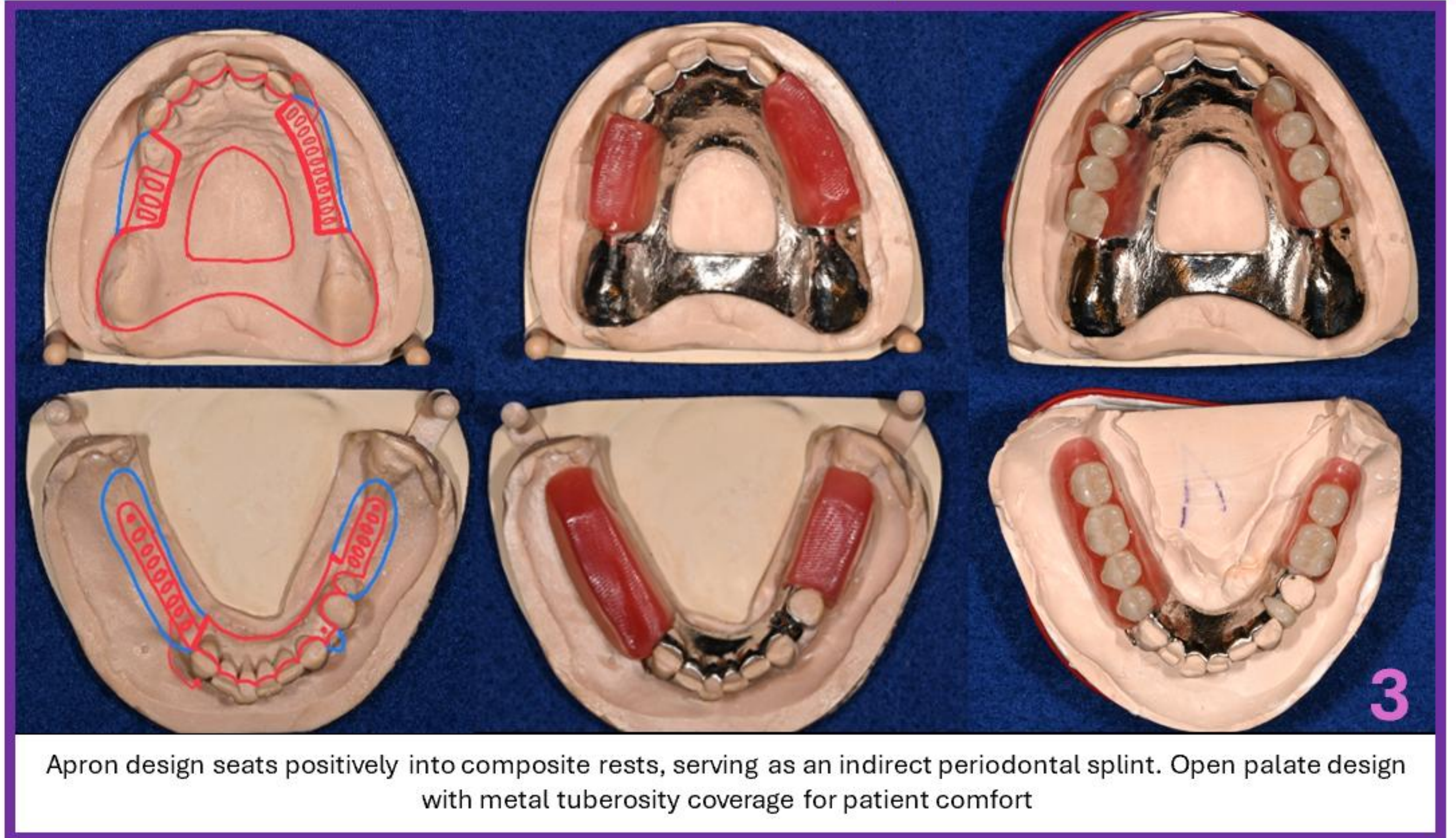
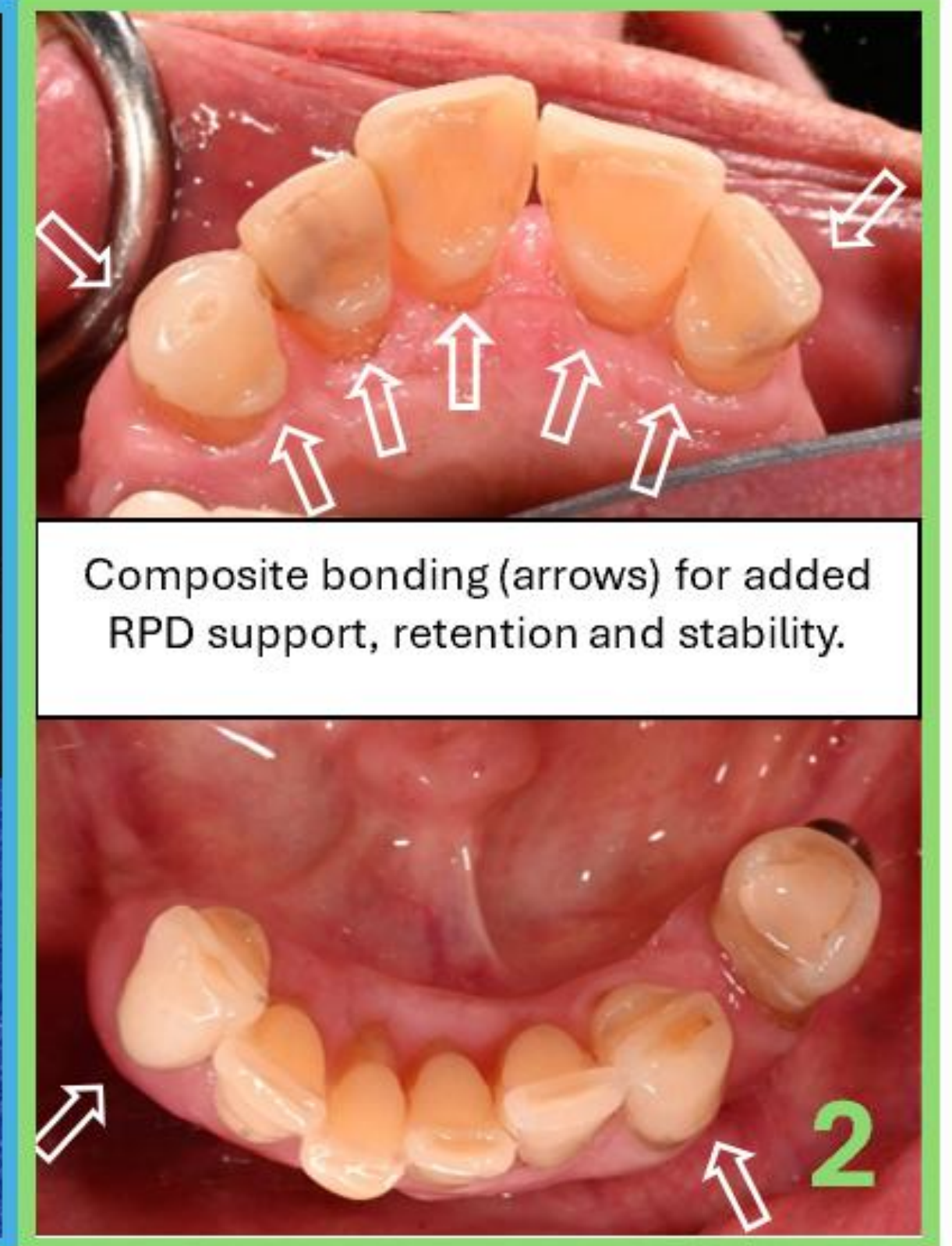
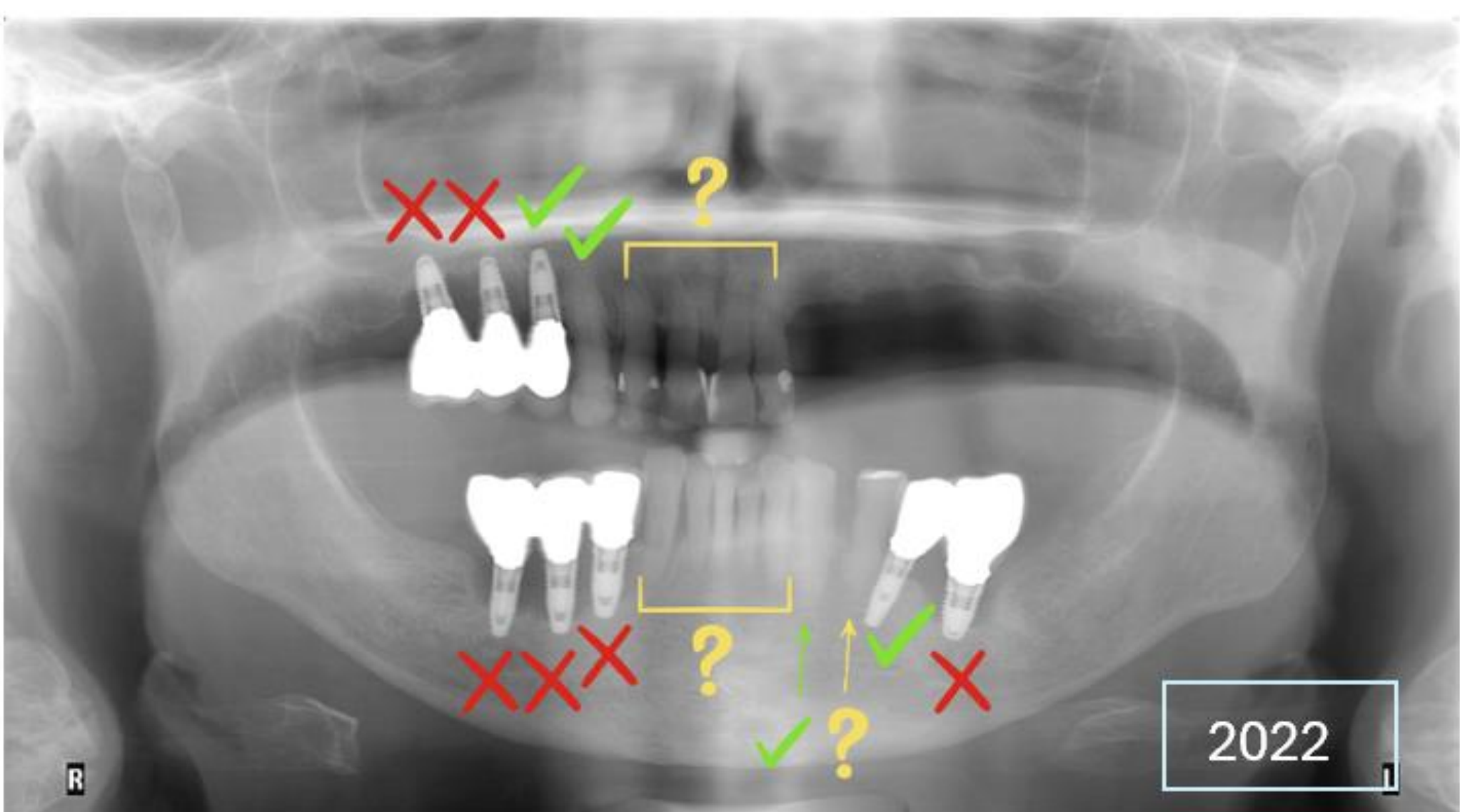
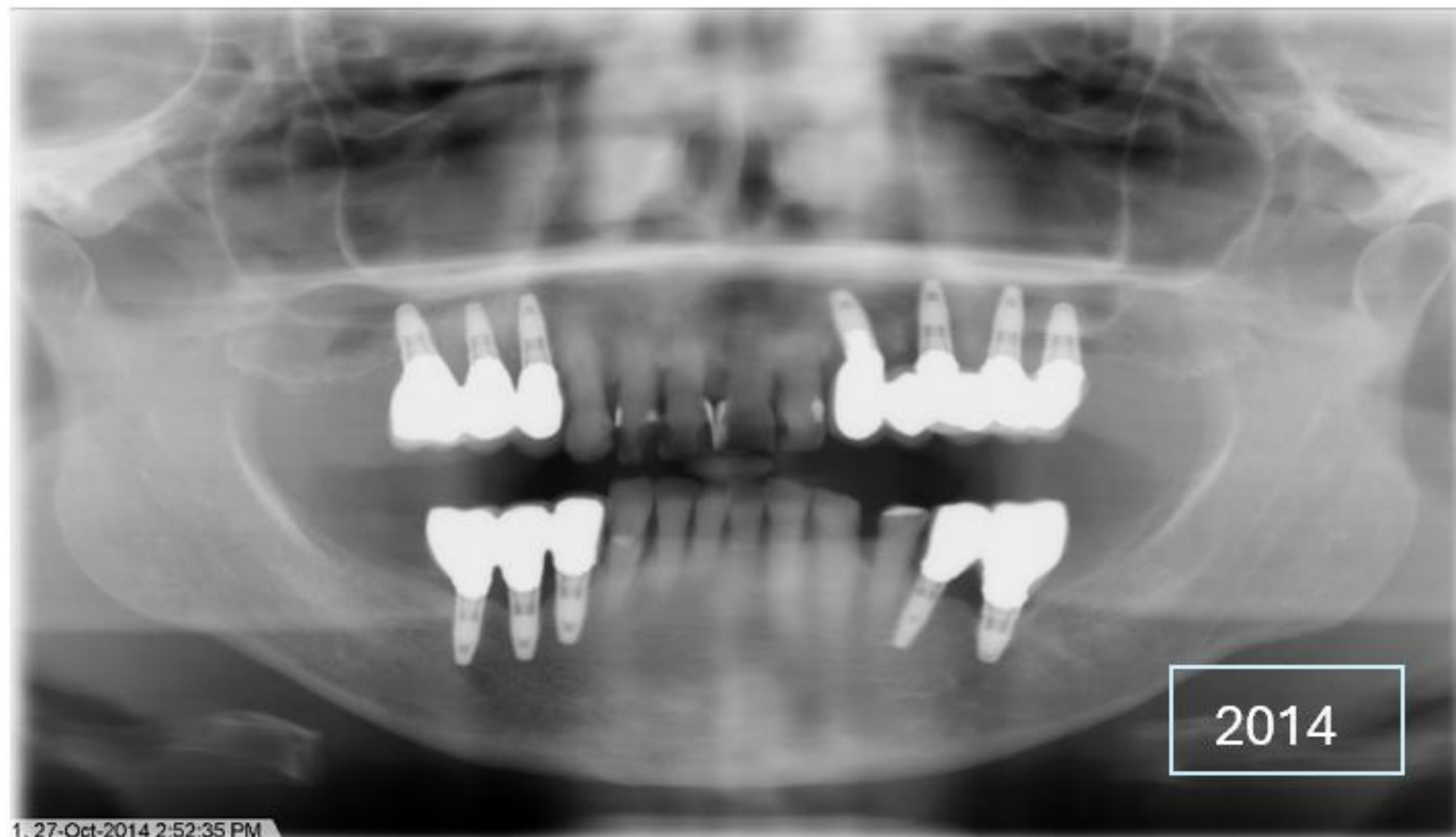
## Summary and Clinical Significance

Direct composite restorations offer a minimally invasive and predictable approach to optimize IS-RPD outcomes in the geriatric patient.



Scan here for more information →

# Supplemental Images



Excursive Movements





# Bibliography

- Bidra AS, Volp LC, Iverson M. Cluster behavior in dental implant failure – A scoping review. *Journal of prosthodontics*. 2025;34(1):9–14.
- Chrcanovic BR, Kisch J, Albrektsson T, Wennerberg A. Analysis of risk factors for cluster behavior of dental implant failures. *Clinical implant dentistry and related research*. 2017;19(4):632–42.
- Toth RW, Fiebiger GE, Mackert JR, Goldman BM. Shear strength of lingual rest seats prepared in bonded composite. *The Journal of prosthetic dentistry*. 1986;56(1):99–104.
- Zarrati S, Sadighpour L, Jahanian G. Comparison of clasp retention on enamel and composite resin-recontoured abutments following repeated removal in vitro. *The Journal of prosthetic dentistry*. 2010;103(4):240–4.

## Thank You!

