



Full Mouth Reconstruction. Flapless Fully Guided Approach for Implant Placement and Immediate Loading in the Maxilla. - A Case Report

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Introduction

One of the options for patients with a terminal dentition is a fixed restoration supported by dental implants . The advent of digitally planned implant and restorative treatment has made treatment outcomes of the complex cases more predictable .

Case Report

53 yo female patient systemically healthy presented with terminal dentition. After diagnosis, different treatment options were discussed and eventually treatment with implant supported prosthesis in both arched was selected.

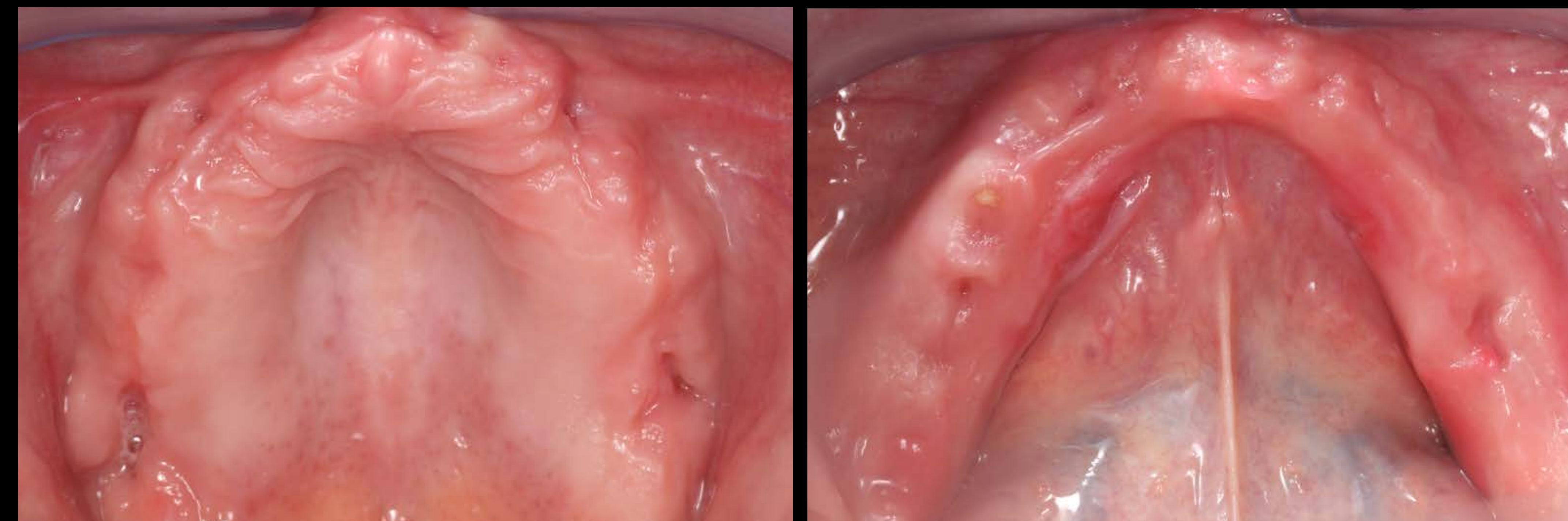
Initial presentation



1 Treatment Sequence

Extractions were performed in both arches and immediate dentures were delivered.

Post op extractions and immediate dentures delivery



Immediate dentures:

- satisfy functional and aesthetic needs
- evaluate lip support
- evaluate VDO
- allow for further planning and implant placement if the above criteria are met

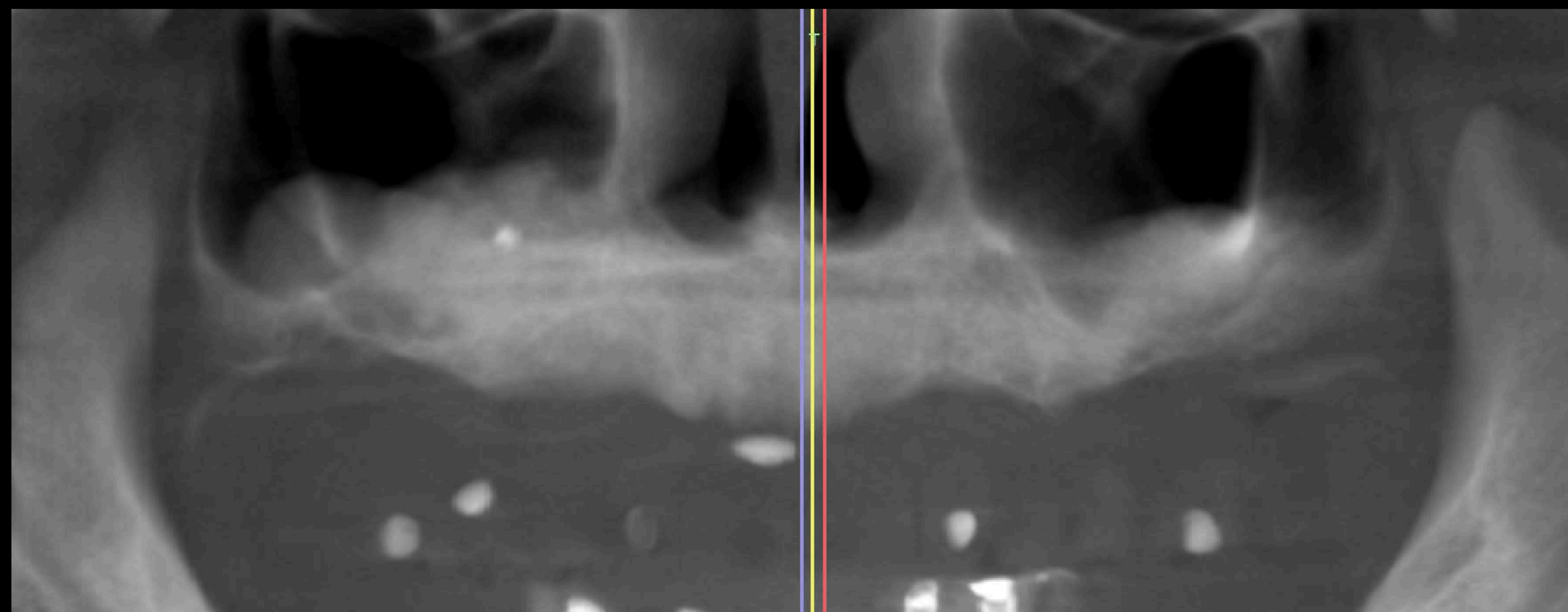
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Data Acquisition Protocol for Surgical Planning Workflow

2.1 Composite markers are put on the existing denture which will allow for the merging of the files in the design software .



2.2 CBCT is taken with the markers on the denture

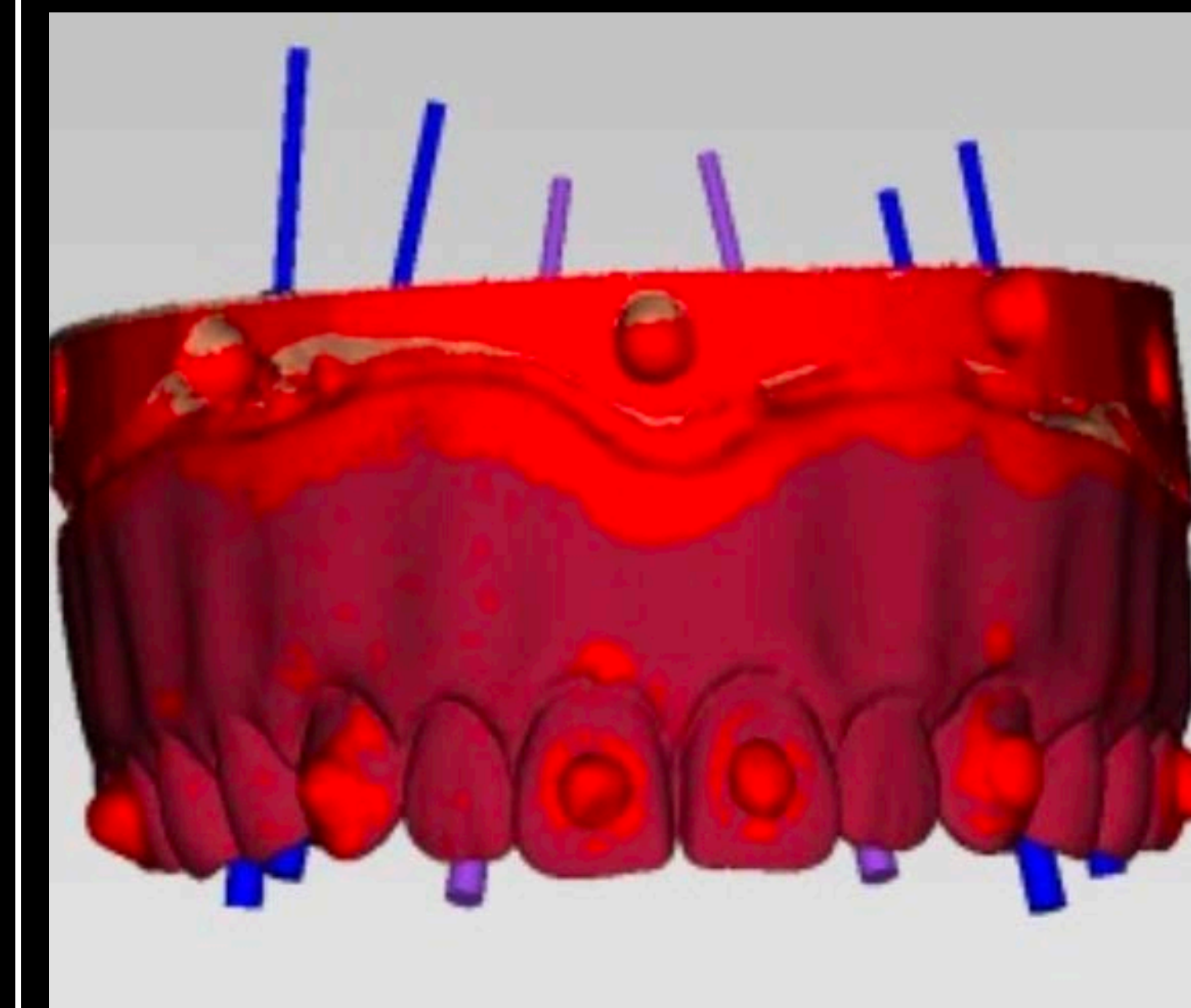


2.3 Bite registration is recorded and the denture with the markers and the antagonist arch are mounted .

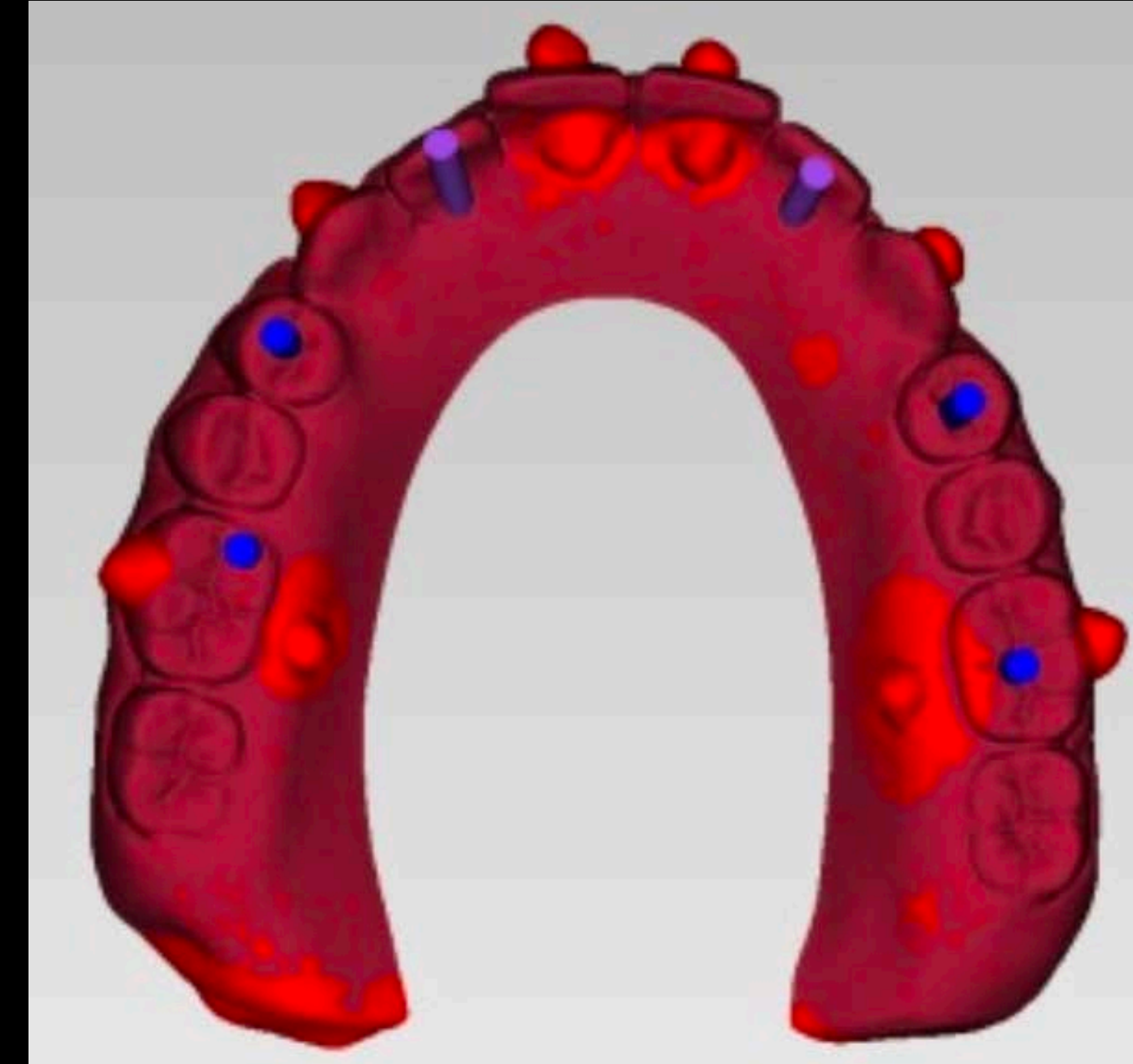
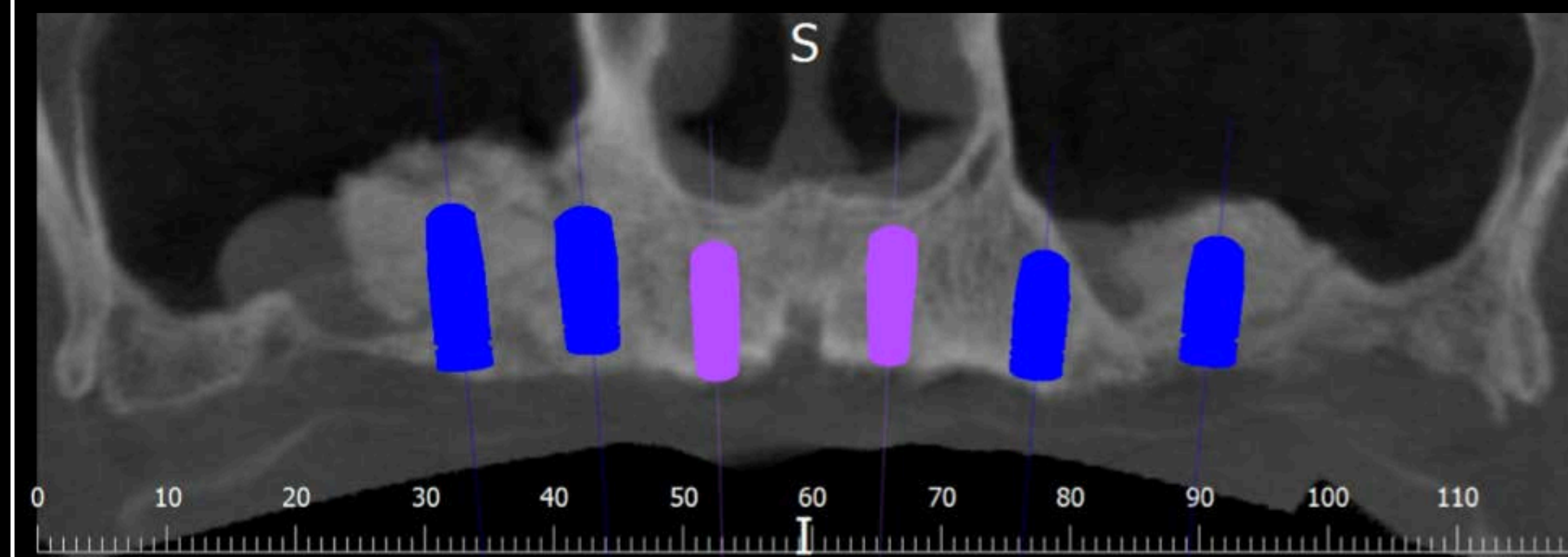


2.4 The acquired files are merged allowing for implant planning using design software.

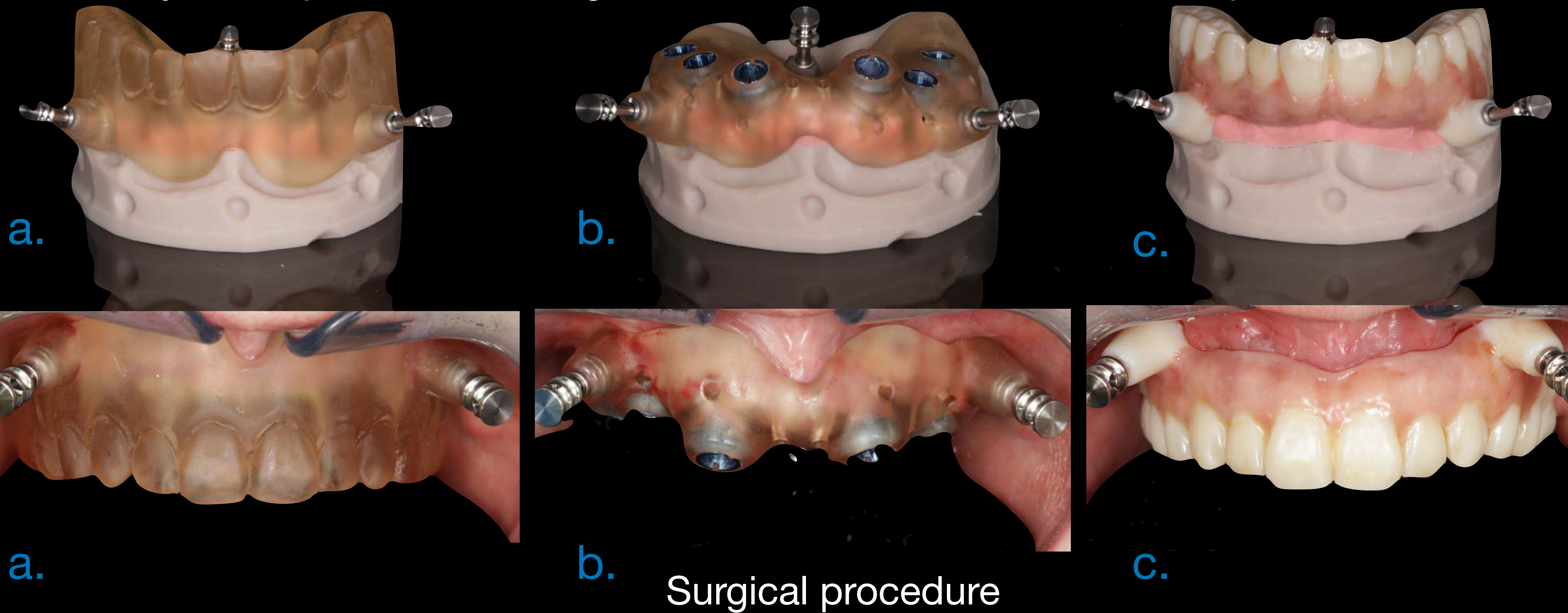
Frontal view



Occlusal view



3.1 A set of 3 guides with 1 palatal pin and 2 buccal pin bilaterally in the premolars area was fabricated. All the 3 fabrications have 3 pins in the exact same location. The first guide is a duplicate of the pre existing denture (a) and allows for the drilling of the pin holes. The surgical guide (b) and the provisional restoration for immediate loading (c) fit in the initially made pin holes. All 3 guides fit in same three dimensional position.



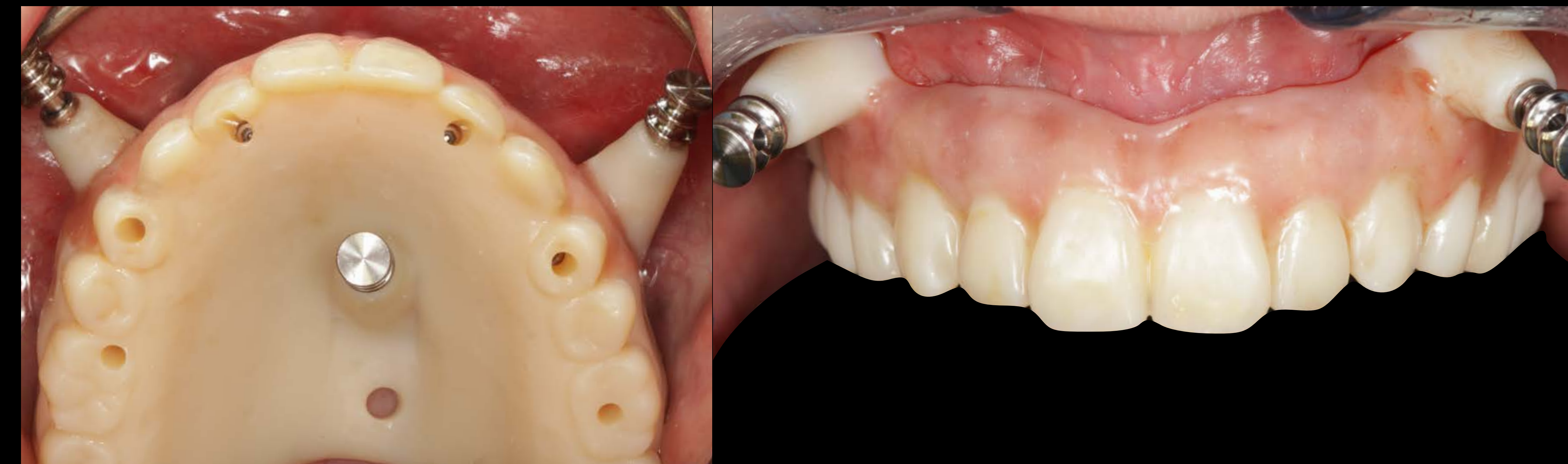
Tissue punch

Implant placement

Abutment placement

Immediate loading

3.2 The digital fabricated provisional restoration is stabilized on the 3 original pin holes and that ensures its position is stable and reproducible during the immediate loading.



Immediate post op



Pre treatment

Discussion

Virtual digital planning and surgical guide fabrication offers the benefit of optimizing surgical outcomes. Following a well established protocol allows for high accuracy in implant placement as well as in the position of the prosthesis .

Conclusion

The guide protocol presented, not only allows for accurate implant placement but also the predictable fabrication of an immediately loaded prosthesis .

4 - months follow up



Dr Marianthi Papaioannou

