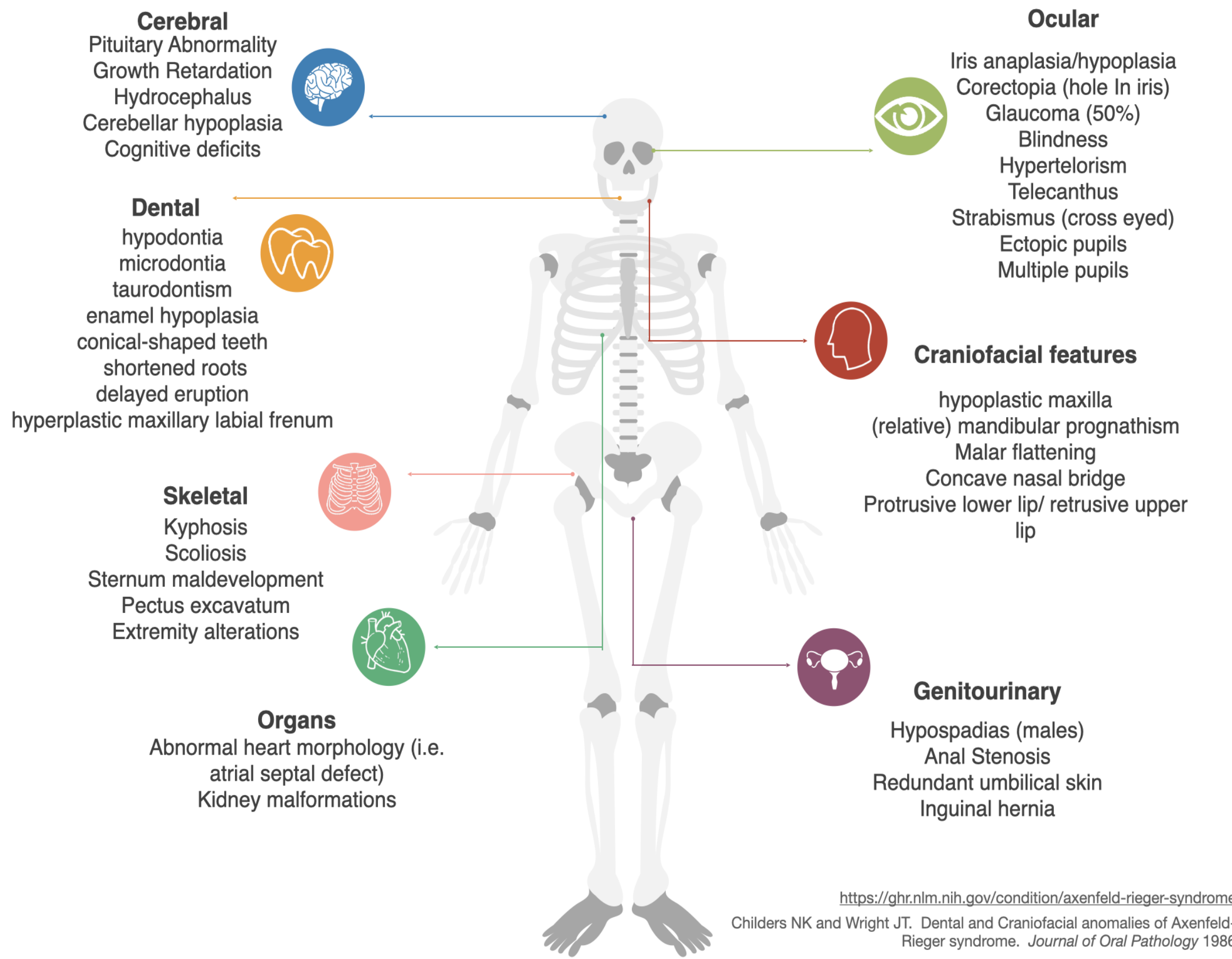


Introduction

Treatment of patient with Axenfeld – Rieger Syndrome (ARS) that required orthodontic and surgical treatment followed by subsequent prosthodontic rehabilitation are discussed. ARS is a rare autosomal dominant condition that affects around 1 in 200,000 live births of which 43% present with dental abnormalities and 24% have facial anomalies.

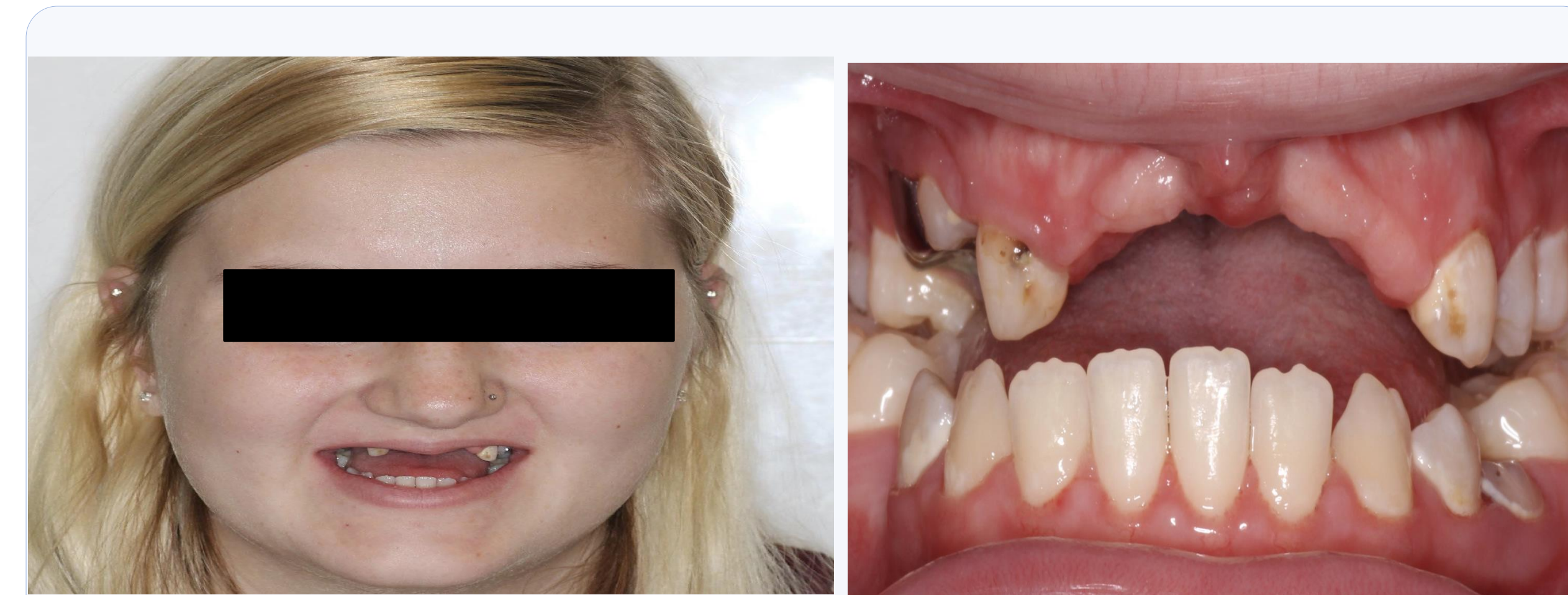
Axenfeld-rieger syndrome (ARS): Manifestation



Childers NK and Wright JT. Dental and Craniofacial anomalies of Axenfeld-Rieger syndrome. Journal of Oral Pathology 1986

Methods

Seventeen-year-old female diagnosed with ARS presented to prosthodontics clinics. Based on a problem list that included mixed dentition, caries, midface hypoplasia and oligodontia, a multidisciplinary collaborative team approach was needed. Some of the treatment considerations focused on caries management, orthodontic-surgical intervention and growth assessment before any implant therapy is considered.



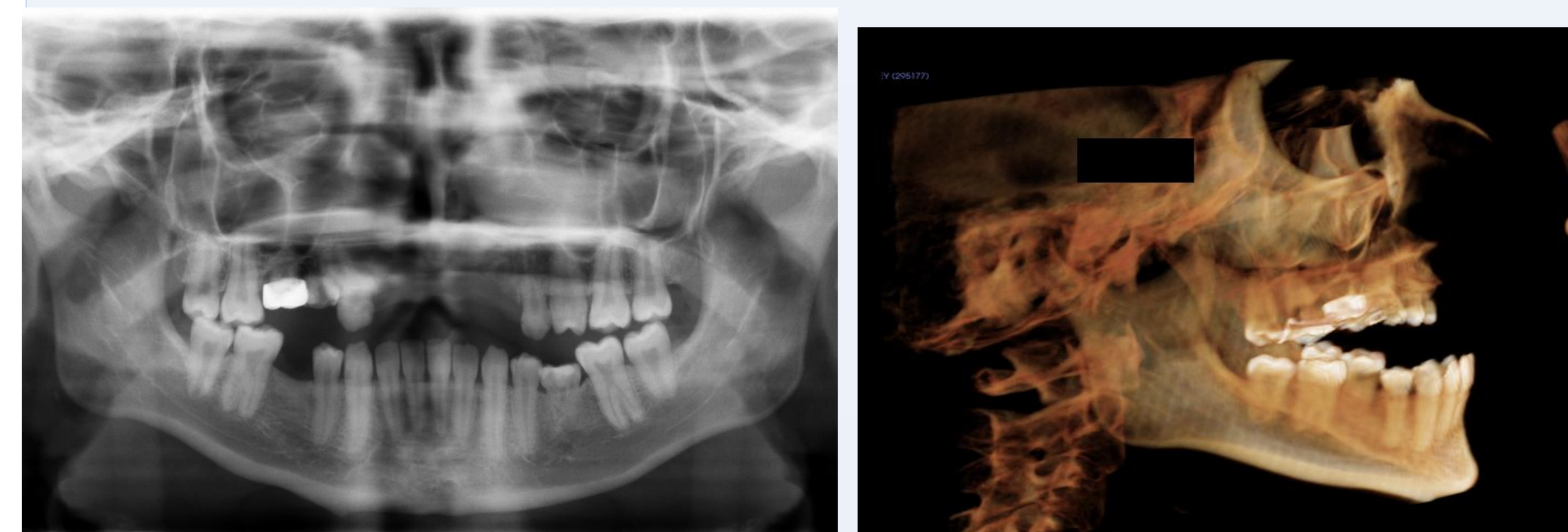
Pre-operative extra oral and intra oral view



Pre-operative view of maxilla and mandible



Pre-operative view right and left side



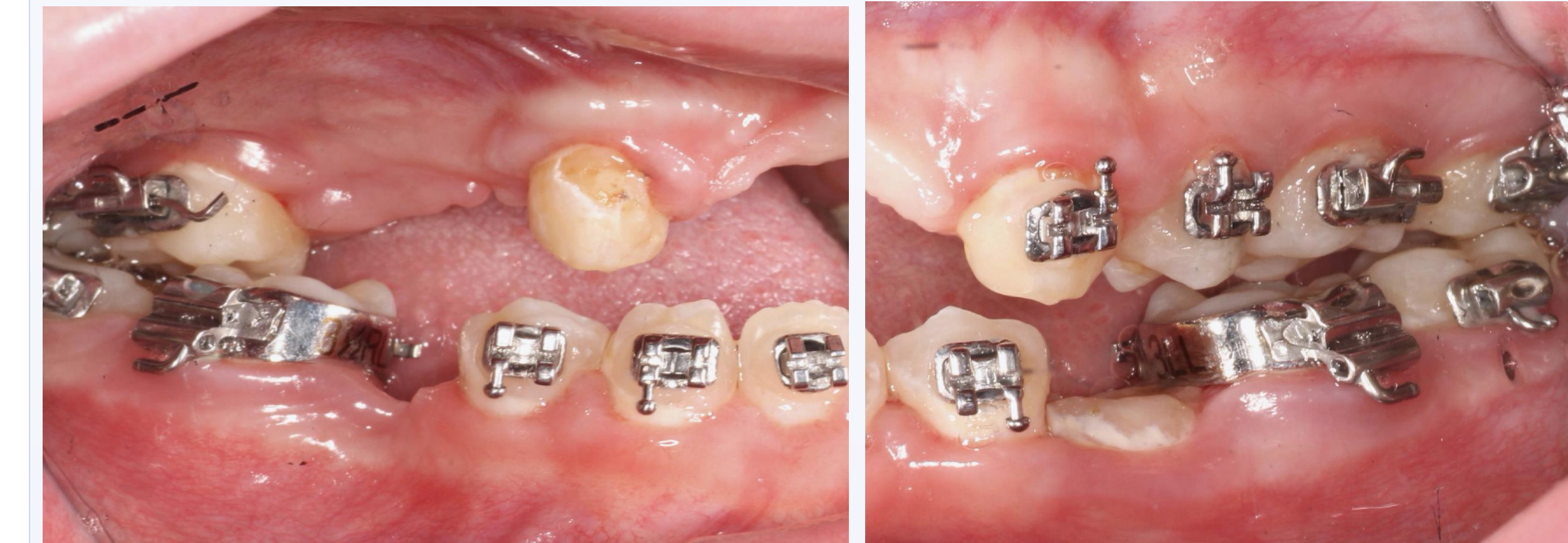
Pre-operative panoramic radiograph

CBCT showing midfacial hypoplasia

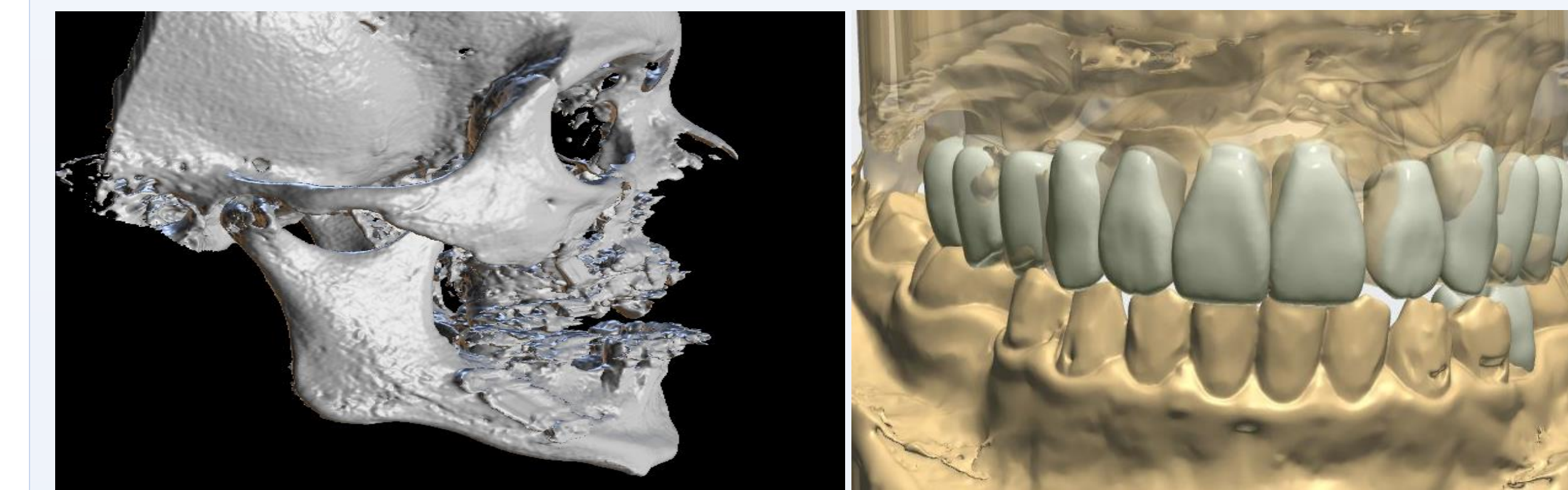
Procedure



Phase 1 Orthodontic treatment completion- Frontal

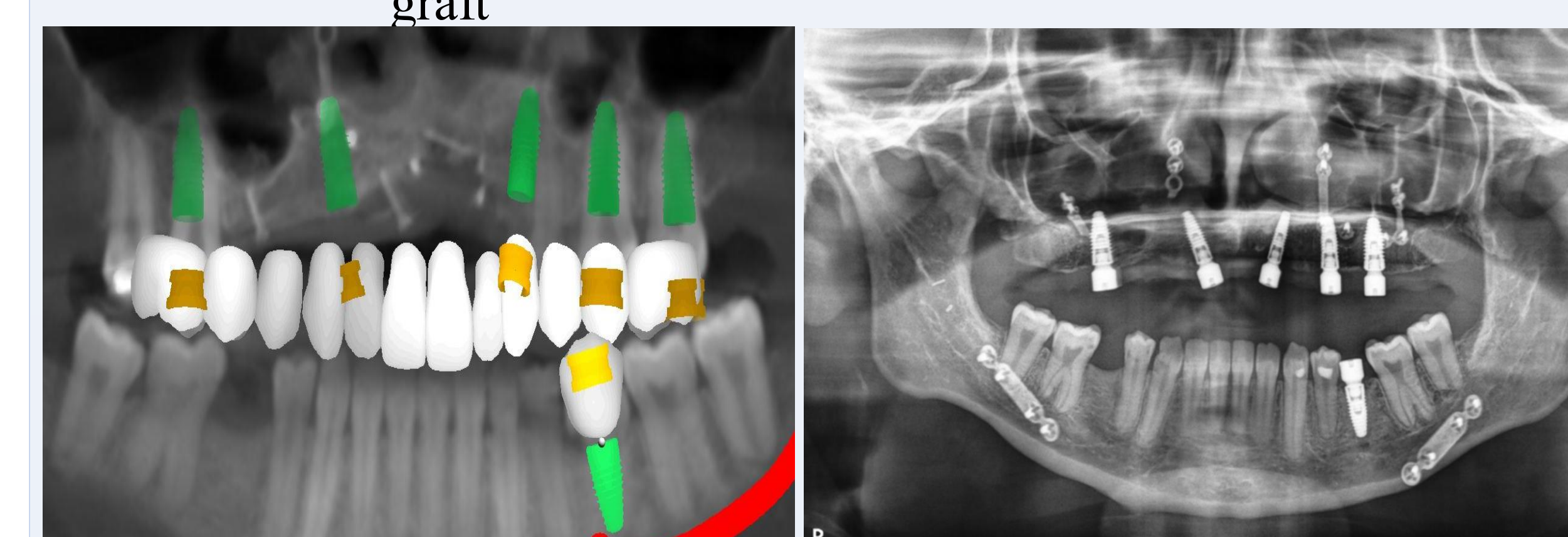


Phase 1 Orthodontic treatment completion- right/left



BSSO and Lefort 1 maxillary advancement with calvarium block graft

Virtual tooth set up



Implant planning

Implant placement

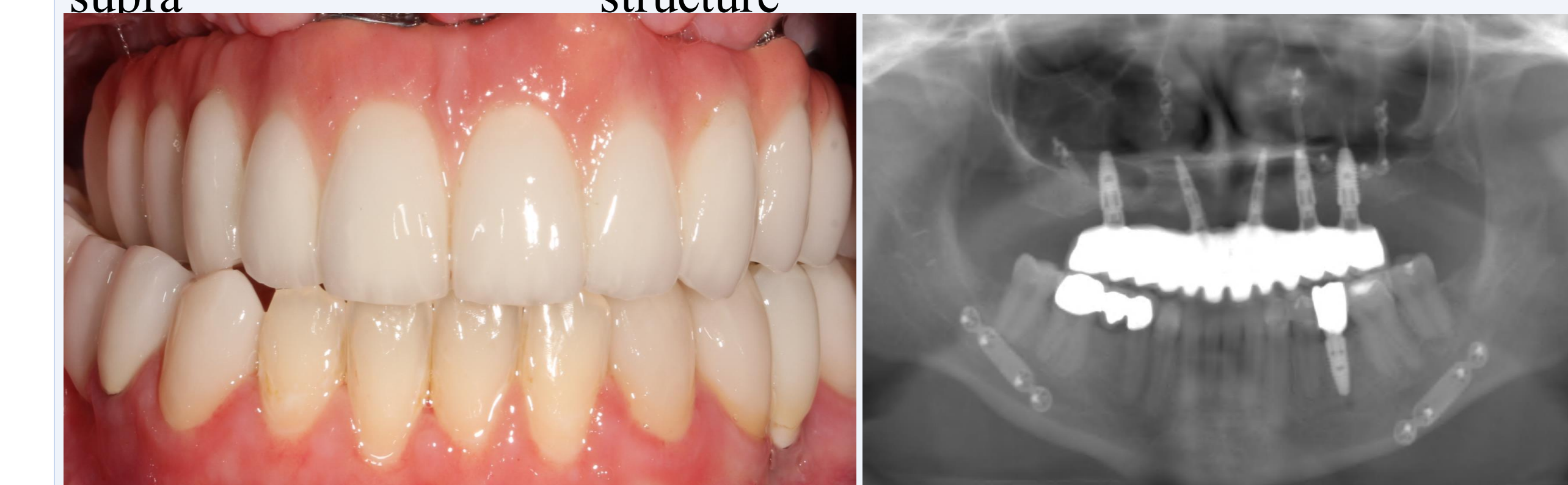


Final prosthesis restoring esthetics and function



Maxillary CAD-CAM milled titanium bar/ceramo-metal supra structure

Mandibular arch with fixed restorations



Intra oral frontal view of the final restorations

Panoramic radiograph of final restorations

Conclusions

Dental professionals play a crucial role in early diagnosis of ARS. A multidisciplinary approach is required to preserve form, function and restore esthetics. After growth completion dental implants can be considered after a through planning.

References

- Waldron JM et al. Spec Care Dentist. 2010 B
- Bender CA et al. Cleft Palate Craniofac J. 2014