

Esthetic Considerations for Anterior Rehabilitation in a Patient with a Cleft Lip and Palate An Interdisciplinary Approach

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64 y/o male presented to UNC Grad Pros Clinic with hx of Cleft Lip and Palate. Numerous CL/P surgery completed as well as history of orthognathic surgery.

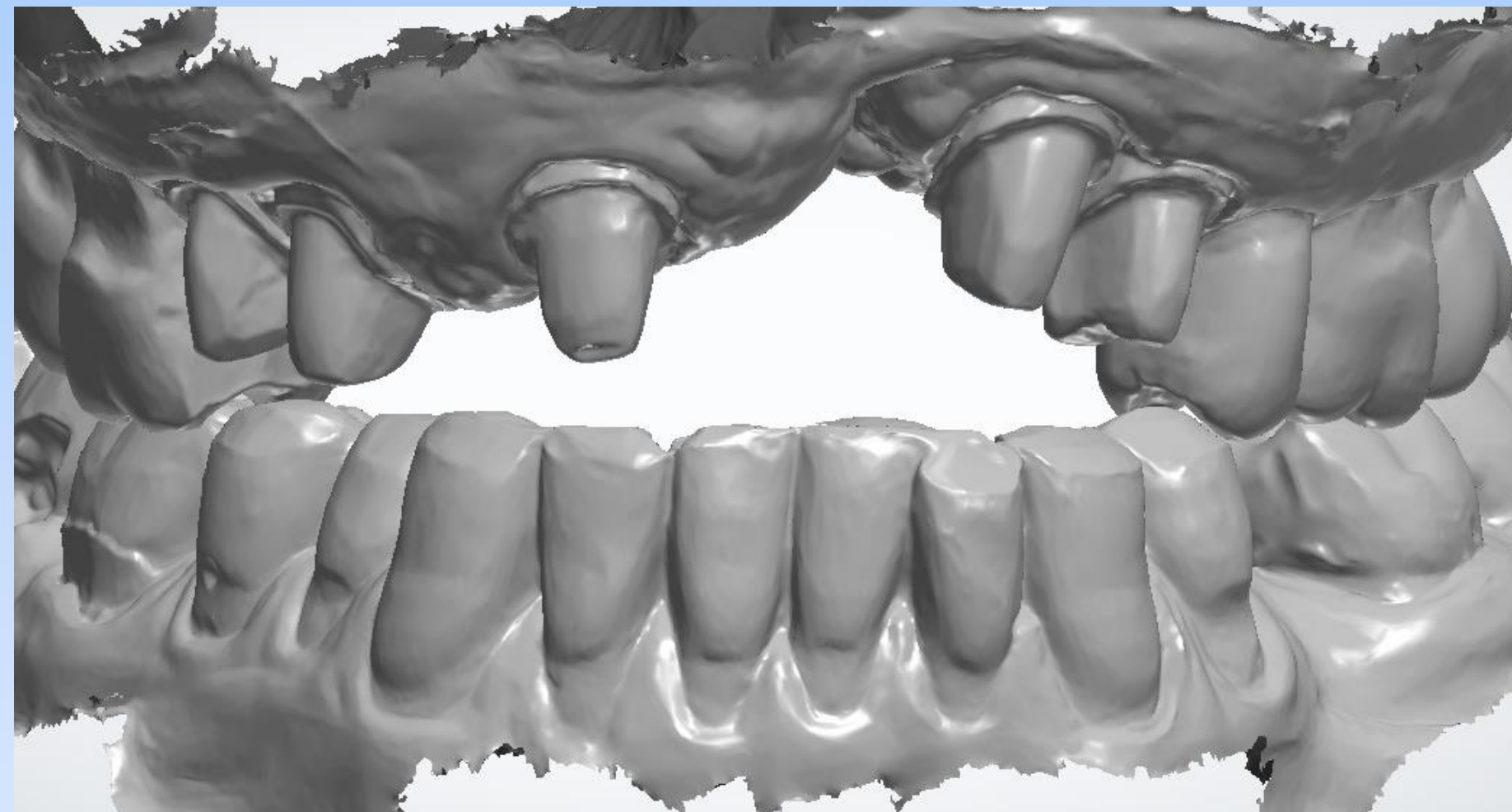


Maxillary CT graft completed to thicken gingival phenotype to help prevent future recession in esthetic zone



Introduction

In individuals with cleft lip and palate (CLP), growth of the maxilla may be altered across all three dimensions, often leading to midfacial underdevelopment. The premaxilla may present as displaced, protrusive, unstable, or absent, producing marked aesthetic, functional, and psychosocial challenges. Both the overall and detailed appearance of the smile can be compromised in CLP patients. Contributing factors include variations in tooth-lip alignment, philtrum shape, and deficiencies of the alveolar ridge. This case report outlines the collaborative management of an adult with history of cleft lip and palate, and describes his prosthodontic rehabilitation with a fixed dental prosthesis designed to mask the skeletal defect and re-establish facial and dental harmony.



Crown preps showing correct path of draw



Hygienic gingival embrasure contours



Bisacryl mock-up completed prior to crown preparation to confirm esthetics



Provisional delivered to confirm esthetics, function and occlusion



Final delivery of zirconia FPD with pink porcelain to mask bony defect

Discussion

This case report showed the ability to utilize an interdisciplinary approach to rehabilitate a cleft lip and palate patient. Due to the clefted side often asymmetrical facial profiles are present. Extra attention was needed to ensure proper esthetics was maintained. In this case due to the long span fixed partial denture over the alveolar defect, oral hygiene was challenging to achieve and maintain. Proper prosthetic contours and embrasures were created to facilitate adequate hygiene. Removable treatment options and surgical treatment potentially conducive to implant placement were offered to the patient. However, patient declined any removable option and had an aversion to any additional surgery.

Conclusion

This clinical report demonstrates an interdisciplinary approach to the rehabilitation of a patient with CLP through the use of a zirconia-based fixed partial denture, augmented with pink porcelain to mask the underlying bony defect. The definitive restoration successfully addressed the patient's esthetic concerns, while establishing satisfactory occlusal function.

References

- Esper LA, Sbrana D. MC, Ribeiro IW, de Siqueira EN, de Almeida AL. Esthetic analysis of gingival components of smile and degree of satisfaction in individuals with cleft lip and palate. *Cleft Palate Craniofac J*. 2009;46(4):381–387.
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