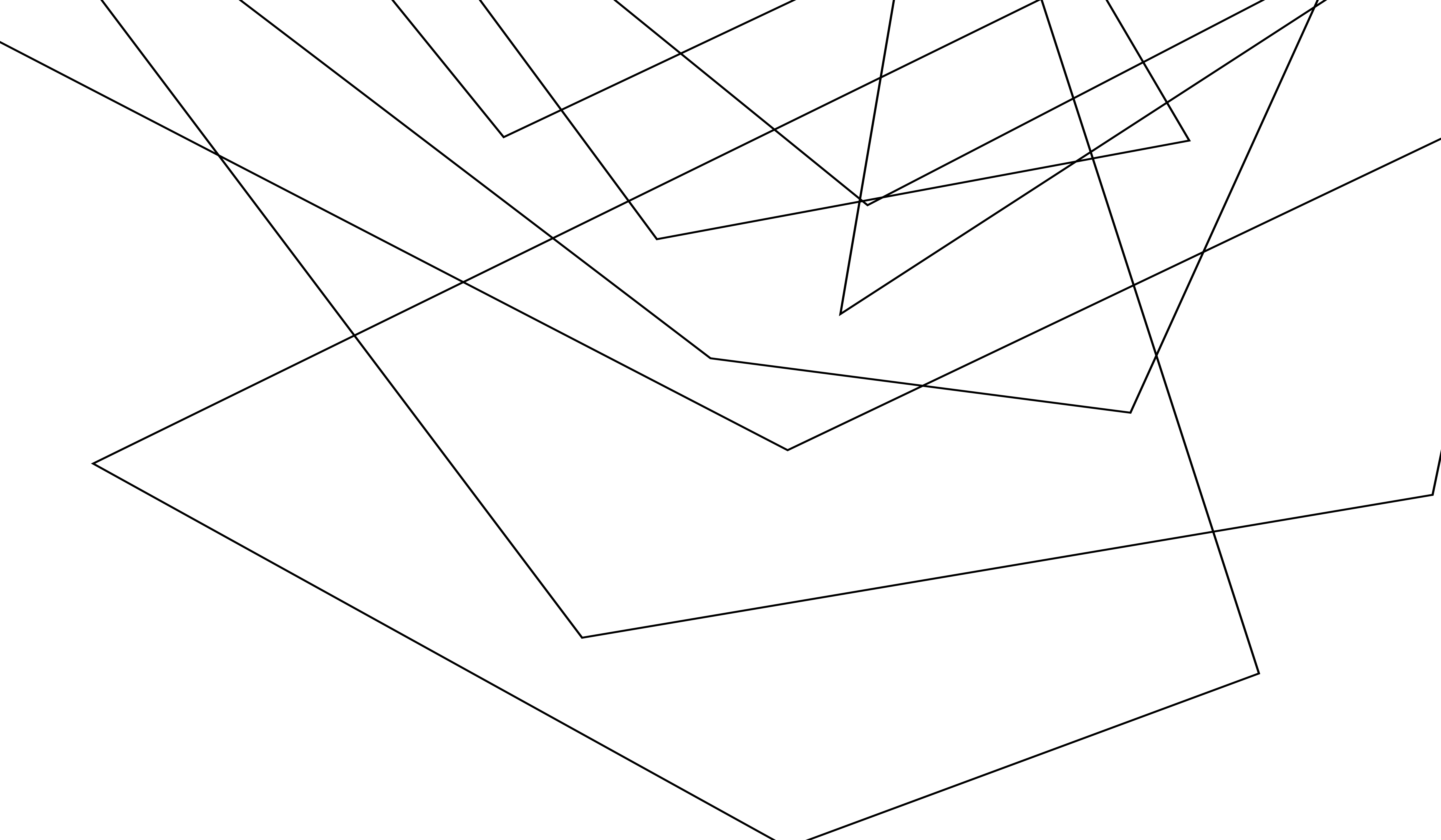


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ANTERIOR IMPLANT EMBRASURES AND ESTHETICS: A CASE STUDY

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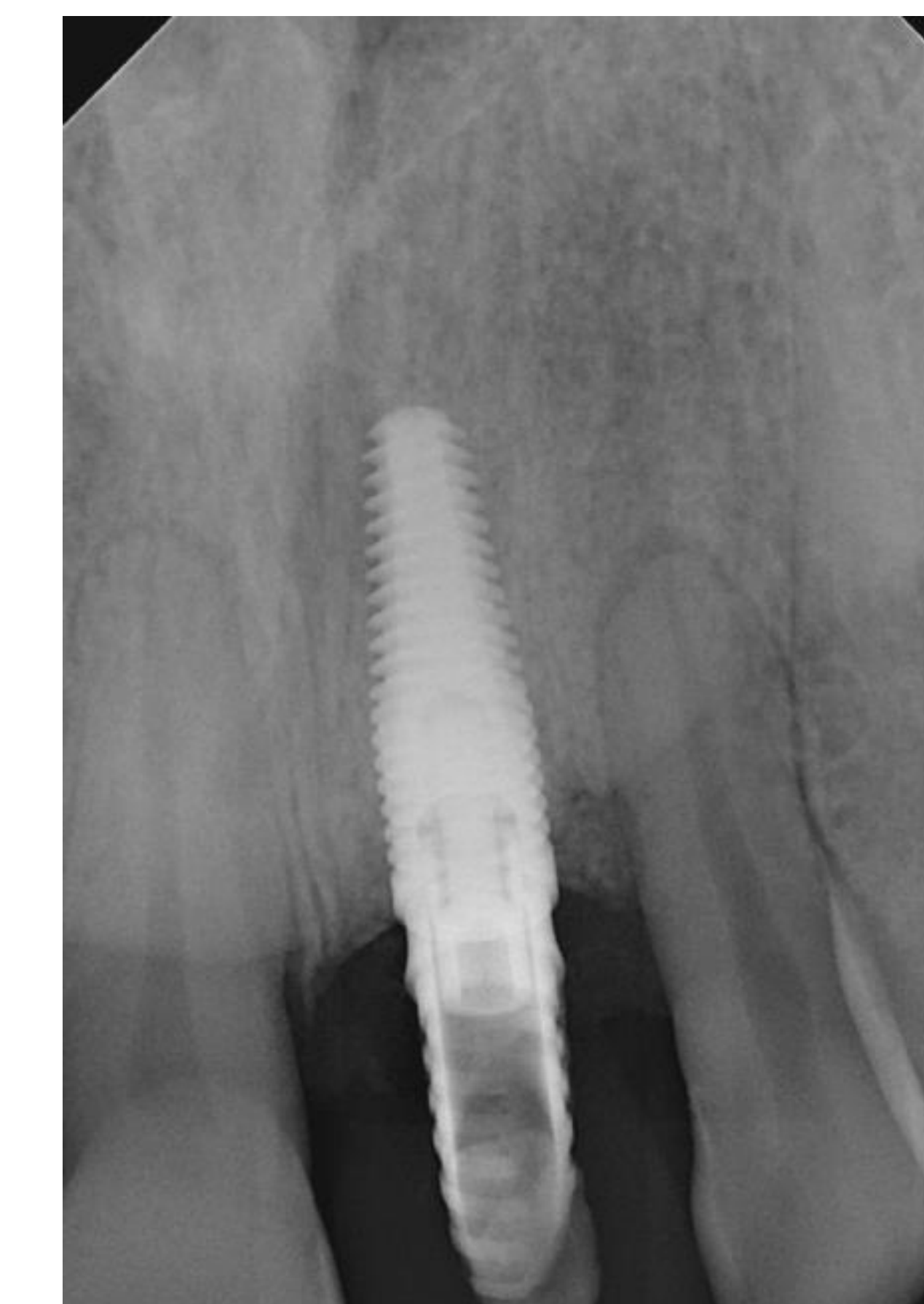
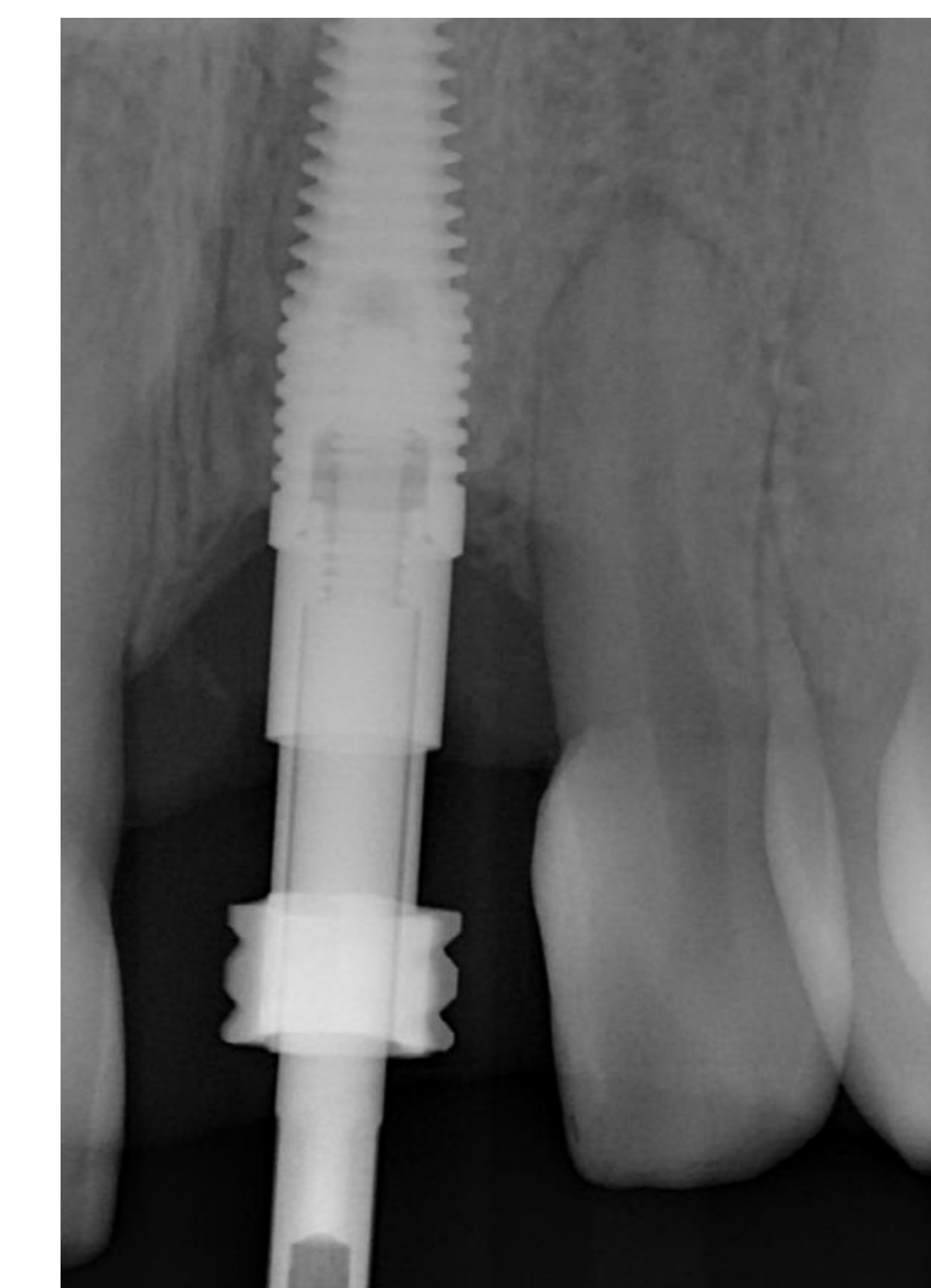
INTRODUCTION

Maxillary anterior implant restorations create an esthetic challenge and require critical attention to detail, pre-surgical planning, and flawless execution to achieve results to satisfy provider and patient expectations. Maxillary anterior implant restorations create many challenges that can be complicated by gingival recession, embrasure spaces, and unique esthetics that complement the patient's existing dentition. As clinicians, it is critical to be able to recognize and address these challenges and customize treatment to your patient's specific needs to provide them with a predictable, esthetic, and functional solution.



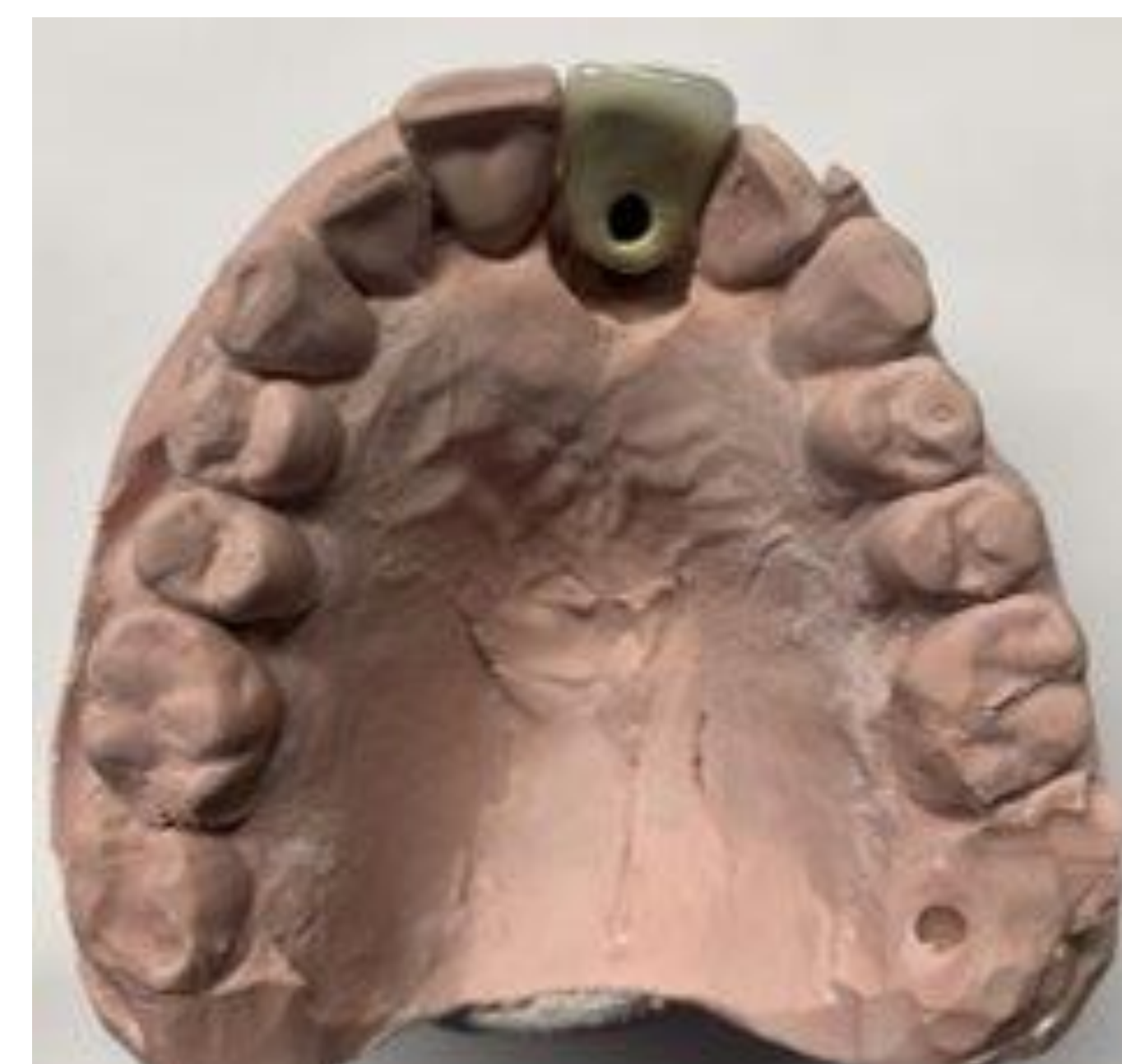
METHODS

A 58 year-old male desires extraction and replacement for tooth #9 with a dental implant . Pt reports a history of childhood trauma #9 and root canal therapy with crown. Due to 9mm probing depth and likely vertical root fracture tooth #9 was extracted and the site was grafted with 0.5cc FDBA. After 1 year of healing and orthodontic treatment due to maxillary anterior crowding, a full thickness flap was reflected, an initial osteotomy was created and a 4x13mm implant with a 12 degree angled screw channel was placed with an insertion torque of >50 Ncm. Three months following implant placement, temporization of the implant was completed to maintain gingival esthetics. Concurrently, tooth #10 presented with 3mm mesial gingival recession and poor crown to root ratio due to root resorption. Due to these factors it was determined that gingival grafting of this site would be unpredictable and a crown or veneer for tooth #10 was not recommended. In this case, an anterior composite was completed to close the embrasure, improve gingival and dental esthetics, and reduce food impaction. The angled screw channel of the #9 implant allowed for an esthetic screw-mentable restoration with screw access channel through the cingulum of the crown.



RESULTS

Implant #9 osseointegration was confirmed three months after placement and the crown was temporized. After gingival adaptation to the temporary crown, the temporary implant crown #9 was removed, a final impression was completed, and porcelain fused to metal screw-mentable crown with cingulum access was fabricated. Tooth #10 mesial facial composite was modified at crown delivery for gingival and dental esthetics and reduction of embrasure space.



CONCLUSIONS

- Maxillary anterior implant restorations present many functional and esthetic challenges that clinicians must overcome to achieve results to satisfy provider and patient expectations. In this case, orthodontics, an implant with an angled screw channel, a well-contoured temporary crown and an esthetic composite created an esthetic and functional result that satisfied both the provider and patient's expectations of replacing a maxillary central incisor.

