

ACHIEVING SUCCESSFUL OUTCOMES WITH IMMEDIATE IMPLANT PLACEMENT AND PROVISIONALIZATION IN THE ANTERIOR ESTHETIC ZONE USING A FULLY GUIDED DIGITAL WORKFLOW: A DETAILED CASE REPORT.

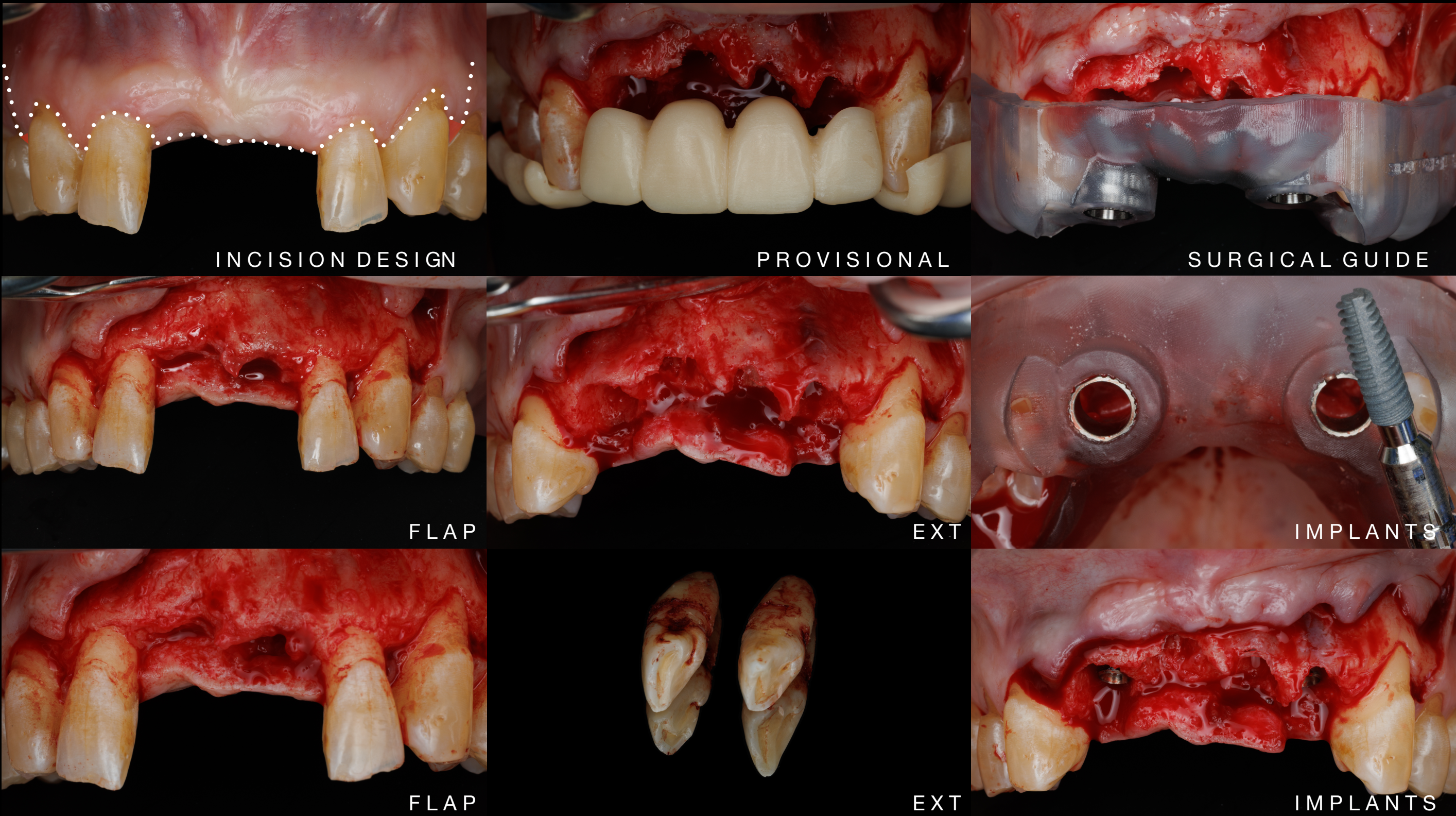
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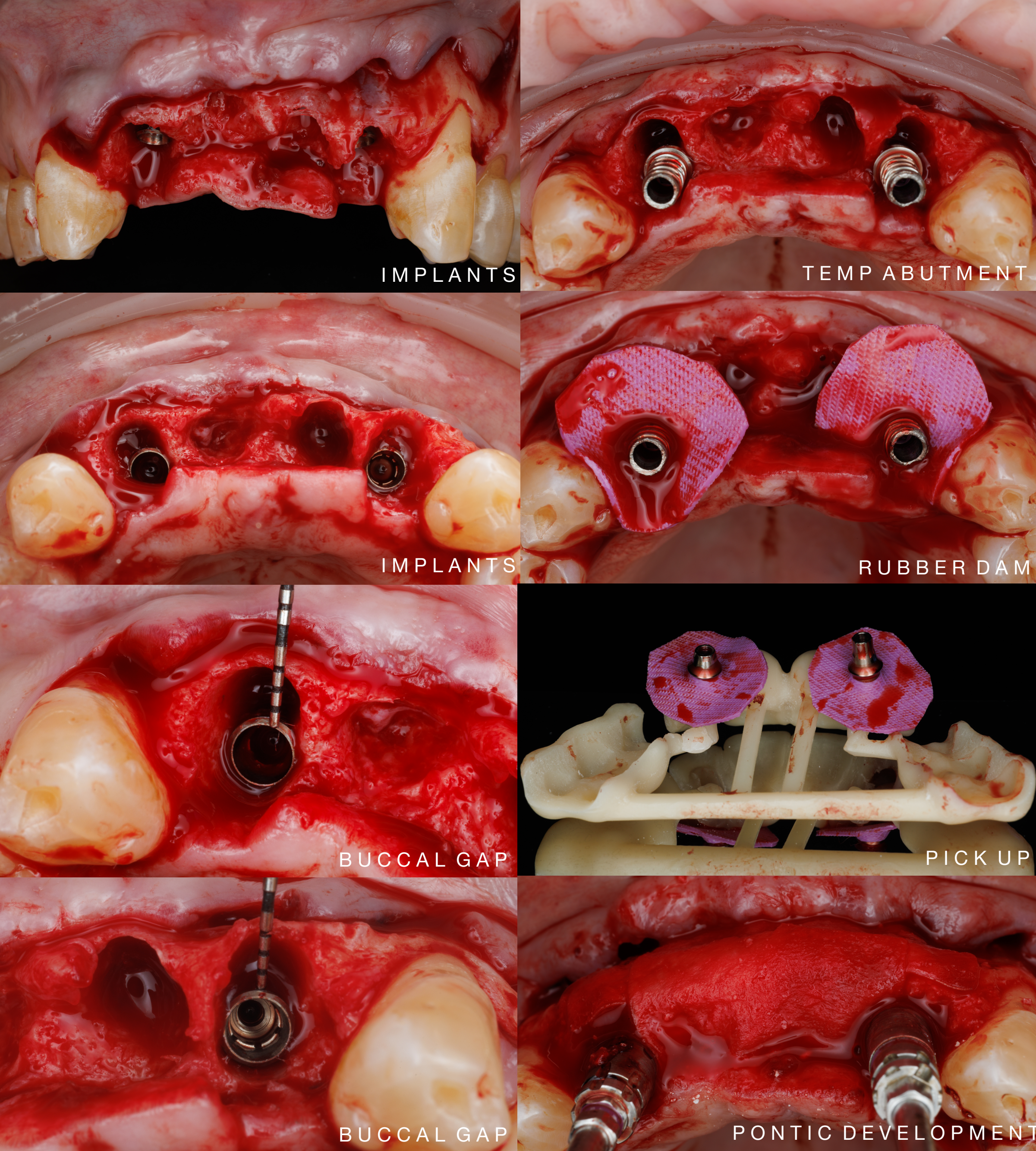
INTRODUCTION

Bone resorption after extractions is more pronounced in the anterior region due to high prevalence of thin buccal bone. This must be considered for immediate implant placement along with achievement of adequate primary stability. 3D position of the implant plays an important role in the emergence profile of the crown and in soft tissue management. Soft tissue contours can be maintained by immediate provisionalization to sustain the gingival architecture. The aim of this present case report is to exhibit a case where a digital workflow was utilized for immediate implant placement combined with immediate provisionalization for ideal aesthetics in a long span edentulous zone.



CASE REPORT

57-year-old male patient presented to Post-Graduate Periodontics Clinic at NSU with a previous unsuccessful history of extraction of #8 and #9, leading to remaining residual roots. Inadequate bone levels in the #8 and #9 site did not allow for ideal 3D positioning of the implants, and a clinical decision to extract #7 and #10 was made, due to unfavorable esthetics, crown-to-root ratio, and mobility of teeth. After a thorough esthetic analysis, a digital workflow was utilized for immediate implant placement with immediate provisionalization. After extractions of #7 and #10, two implants were placed using a fully guided protocol. A porcine collagen matrix was utilized for soft tissue augmentation of the site. Xenograft combined with collagen was used to graft the buccal gap and pontic sites #8 and #9. Laboratory fabricated CR provisional shell was modified intraorally to achieve optimal EBC (esthetic, biologic, crestal) contours.

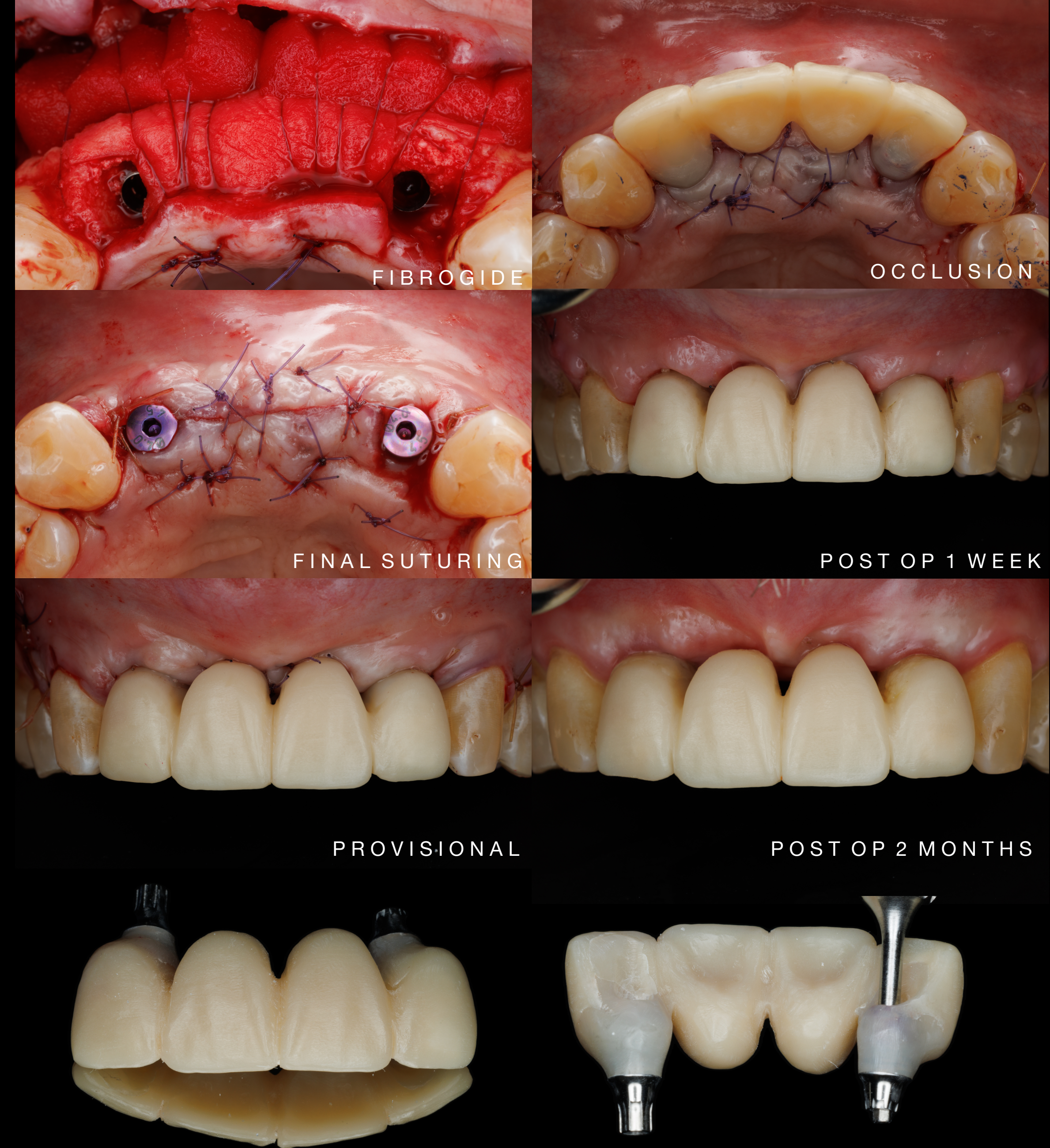


RESULTS

Immediate implant placement with immediate provisionalization with correct emergence profile allowed for a stable gingival architecture over a short follow-up period. This procedure also favored the patient with shorter treatment time and minimized the amount of surgical intervention required. Vestibuloplasty to relieve the buccal frenum will be done at a secondary stage to allow for re-establishment of the vestibule.

CONCLUSION

Several factors should be considered when facing challenging cases in the esthetic area including patient selection, accurate preoperative planning, and restorative skills. When planned carefully, immediate implant placement and provisionalization offer several advantages, including shorter treatment time, improved esthetics, and enhanced patient satisfaction. The use of a digital workflow enables for accurate and predictable results.





PREOP
PERIAPICAL



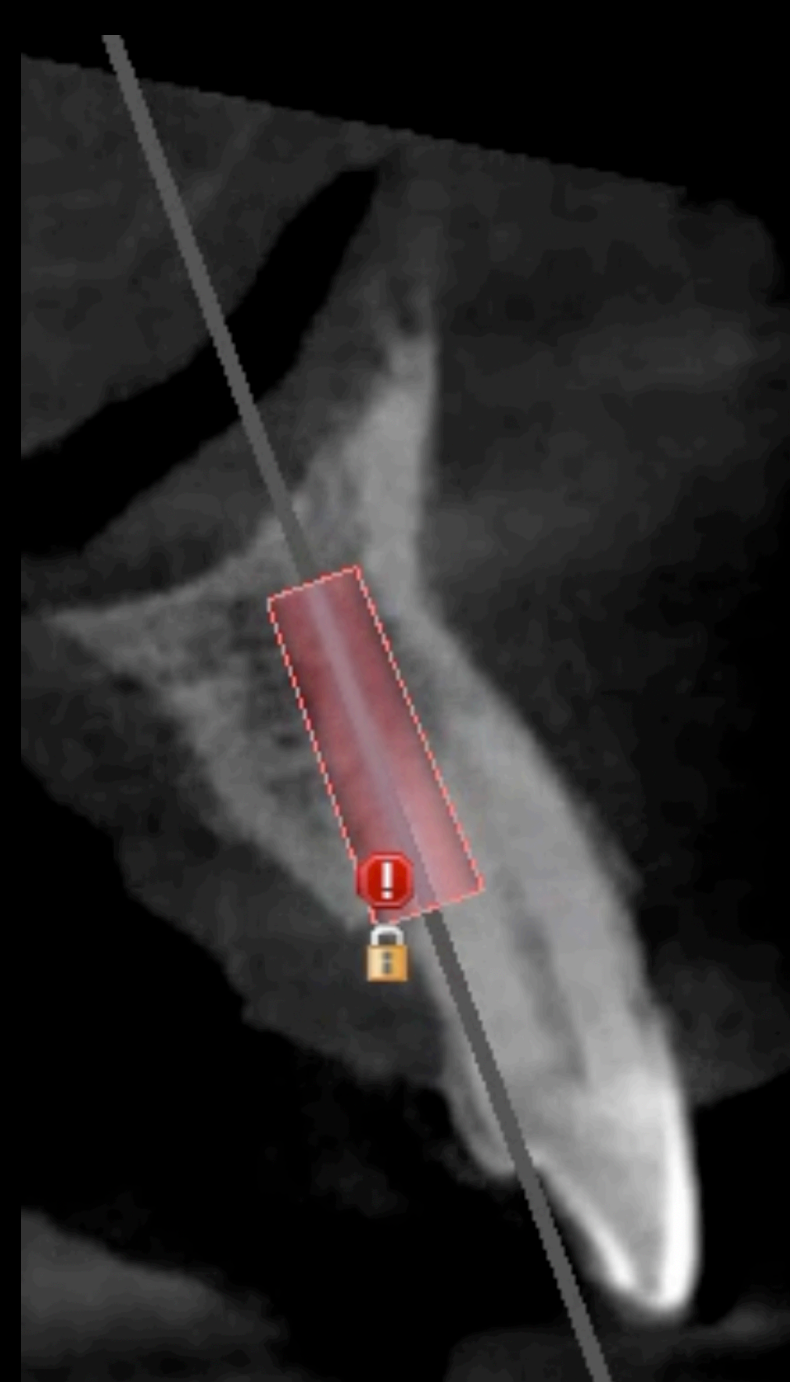
POST EXO
PERIAPICAL



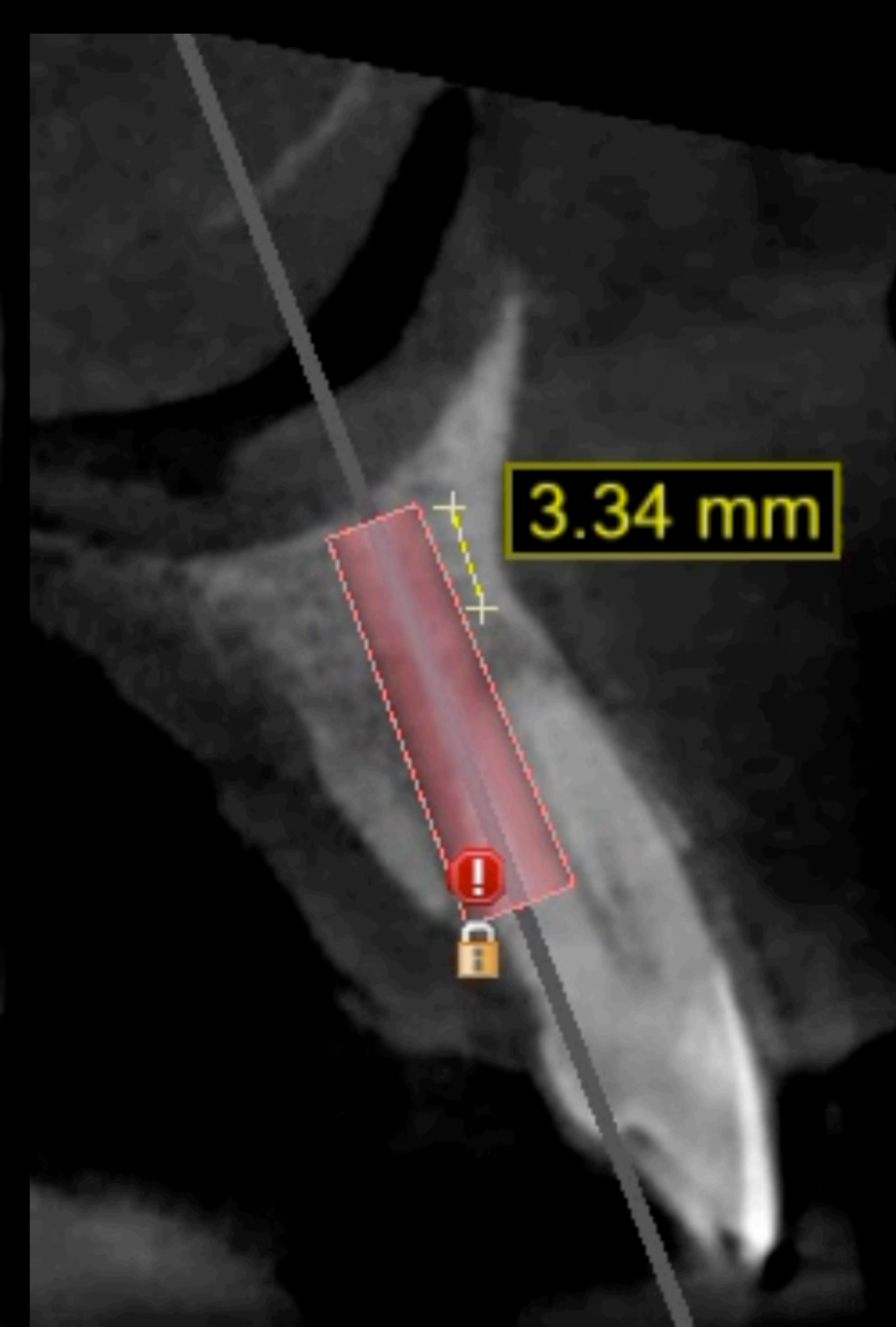
#9 CBCT
CROSS SECTION



#8 CBCT
CROSS SECTION



IMPLANT #10
PLANNING



IMPLANT #7
PLANNING

REFERENCES

1. Levine RA, Ganeles J, Gonzaga L, Kan JK, Randel H, Evans CD, Chen ST. 10 Keys for Successful Esthetic-Zone Single Immediate Implants. *Compend Contin Educ Dent*. 2017 Apr;38(4):248-260.
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