SUCCESSFUL IMPLANT THERAPY IN PATIENTS WITH ALTERED PASSIVE ERUPTION UTILIZING A DIGITALLY GUIDED WORKFLOW

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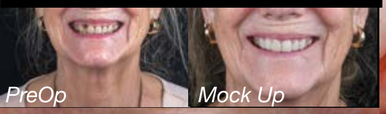
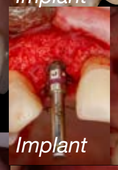
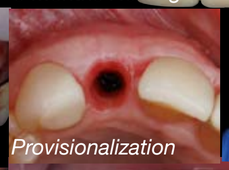
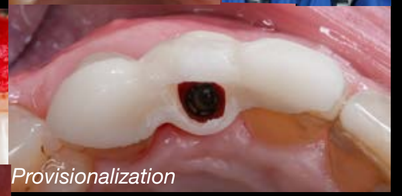








CASE 1

CASE REPORT

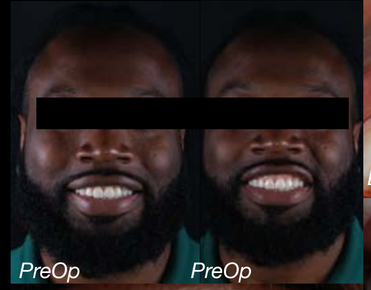
Case 1: 67-year-old female presented to the Post-Graduate Periodontics Clinic at Nova Southeastern University with a concern of missing tooth #7, extracted previously without any grafting procedures. Examination revealed staining, extra-coronal restorations, excessive gingival display, square shaped teeth, and deficiency in the edentulous site #7. Patient was treatment planned for esthetic crown lengthening (ECL) of #6-11, bone augmentation #7, followed by implant placement and extra-coronal coverage of #6-11. A digital mock-up was created based on ideal smile parameters, and an ECL guide was fabricated. Initially, osseous reduction and GBR of #7 site took place. At 5.5 months, gingivectomy #6-11, implant placement #7, and a CTG was performed. Teeth and implants were provisionalized using lab-milled crowns to allow for soft tissue maturation leading to improved esthetics.

CASE REPORT

Case 2: 39-year-old male patient, presented to the Post-Graduate Periodontics Clinic with a concern of pain on #8 site, due to presence of external cervical root resorption. Examination revealed resin veneers on #8 and #9, square shaped teeth, asymmetric smile, lip hypermobility, and excessive gingival display. Patient was planned for ECL of #4-12, extraction, immediate implant placement and provisionalization on #8, restorations on #8i and #9, and botox treatment to address lip hypermobility. A surgical crown lengthening and implant guide was fabricated to allow for pre-planned ECL, and implant placement of #8.

RESULTS

Over a short follow up period, the treatments rendered resulted in a favorable dental-periodontal harmony, as well as an increase in function, esthetics, and patient satisfaction.


PreOp PreOp

PreOp

PreOp

Day of Surgery

Ext #8

Ext #8

Ext #8 - Occlusal

Guide Placement

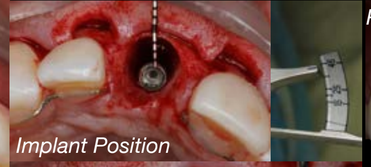
Gingivectomy

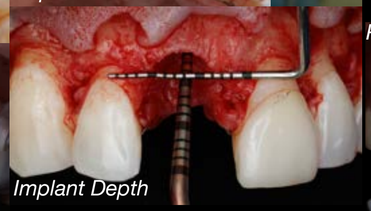
Flap

Pre-Crown Lengthening

Post-Crown Lengthening

Implant


Implant Position


Implant Depth

CTG

Bone Graft

Provisionalization

Closure

Provisionalization

Post Op 1 Week

Post Op 1 Month

CASE 2

SUMMARY

A clinical scenario in the aesthetic zone is the presence of short clinical crowns, which in the absence of occlusal wear and other injuries, can be referred to as altered passive eruption (APE). Presence of APE can lead to esthetic issues, which can impact the patient's smile harmony. In aesthetically demanding cases, APE must be addressed prior to or in conjunction with implant therapy, and failure to do so can result in aesthetic complications and failure in prosthetic planning. This case report exemplifies a digital workflow in treating such patients to achieve optimal outcomes.

CONCLUSION

Pre-operative analysis of patients' esthetics is important when implants are considered in the anterior segment. Recognition and treatment of APE can have significant effects on the 3D positioning of dental implants and the desired esthetic outcome.

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