

Considerations of Aesthetic Implant Restoration in Extremely Atrophic Ridge

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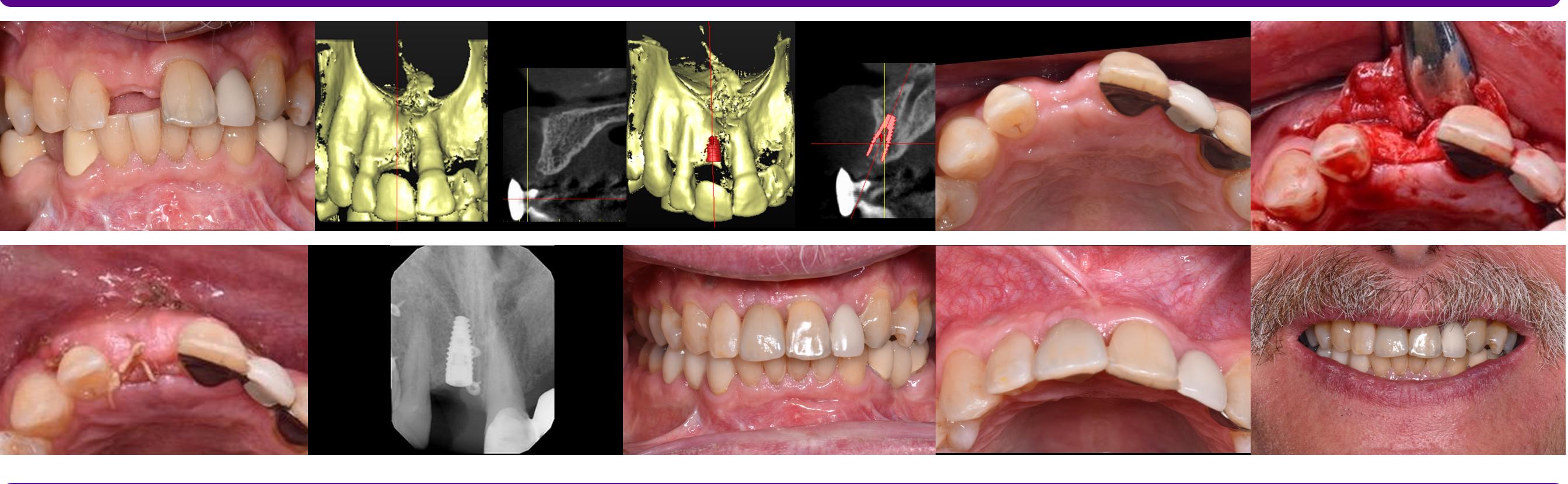


INTRODUCTION

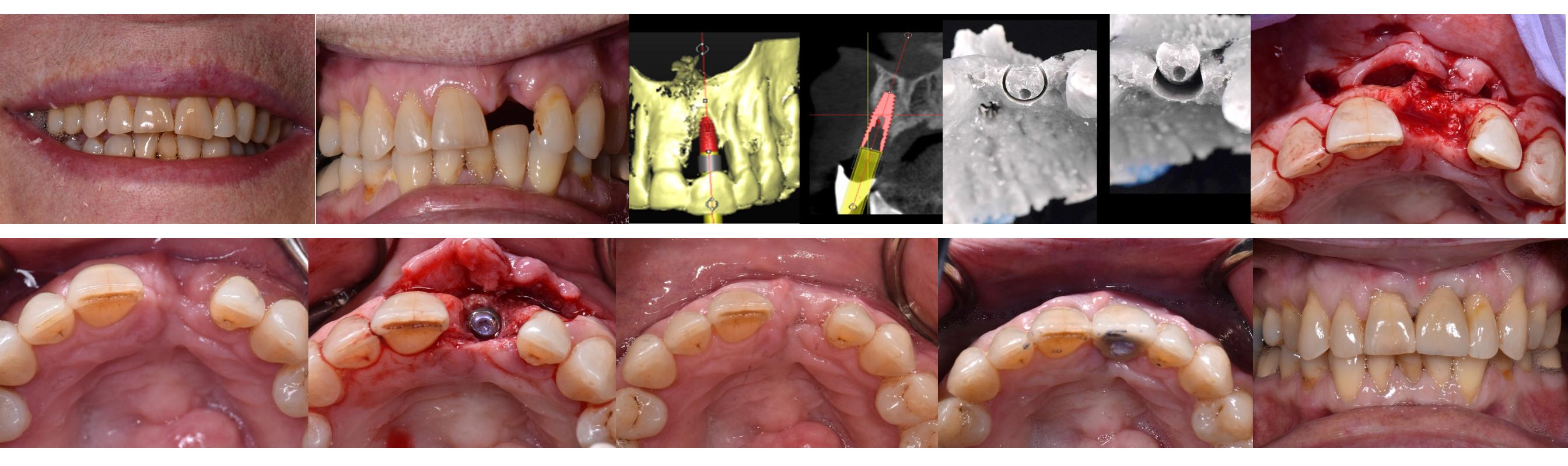
Esthetics outcome is critical to the success of implant restoration. To achieve ideal esthetics outcome, proper planning customized to each case needs to be executed. Assessment of smile line, gingival line and incisal line as well as other factors such as tooth shape and gingival biotype are critical to considerations of treatment planning. Temporalization also plays important role in the esthetics outcome prior and post implant placement. In the two presented cases, different surgical techniques were employed to compensate for bone deficiency in the implant site. In severely atrophic sites, several techniques such as GBR, onlay grafting, inlay graft, tent pole, distraction osteogenesis are utilized.

However, these techniques have its disadvantages such as secondary morbidity and longer over all treatment time. In the first case, implant was placed simultaneously with GBR. In the second case, Custom Alveolar Ridge Split (CARS) technique was employed to augment for vertical and horizontal deficiency. Both patients experience minimum discomfort towards the procedure. Temporarizations were done 3 months post implant placement. Modifications of temporarizations were made for papilla growth. After soft tissue molding was done and patients were satisfied, impressions were taken for final restorations. Both patients were overall satisfied with the outcome and the treatment length.

CASE 1: horizontal ridge defect, GBR + implant



CASE 2: horizontal and vertical ridge defect, staged CARS, implant



CONCLUSION

In the two cases, different treatment approaches and techniques were executed. The successful outcome depends on several factors: patient factor, operator skill and biomechanical factor. To achieve successful outcome, thorough planning was made with careful considerations of the three factors. With high smile line, it is important to consider temporarization options to create optimum esthetics outcome. However, with average to low smile line, it is also crucial to create proper contour with bone augmentation for long-term health and esthetics. Temporarization also plays an important role to shape the gingival contour and reduce gingival embrasure of the site. In conclusion, multidisciplinary approaches from treatment planning, surgical consideration, augmentation procedure and prosthetic consideration critically influence the treatment outcome.

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