

Guided bone regeneration procedure for delayed implant placement in the esthetic zone: a 5 year case report

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Introduction

Anterior teeth trauma during childhood can lead to compromised teeth in relatively young patients with a high aesthetic demand. This case report describes the management of a young patient who suffered from teeth trauma of her maxillary incisors at 8 years of age.

Case report

A 24 years-old female patient, non smoker and periodontally healthy, consulted our clinic to treat her anterior teeth.

The clinical examination highlights, three severely compromised teeth showing evidence of infection and swelling in the apical area requiring their extraction (**A, B**). The extraction of the hopeless teeth were followed by subepithelial connective tissue grafting procedure (**C**) 3 months later (**D**), guided bone regeneration (GBR) technique was employed using bovine hydroxyapatite in conjunction with allogenic bone graft particles and a non resorbable membrane for ridge augmentation due to horizontal and vertical defect (**E, F, G, H**).

After 8 months of healing (**I**), two implants were placed associated to connective tissue graft (**J, K, L, M, N**) and immediate provisionalisation followed by final restoration (**O, P**).

Discussion

Implant treatment in the aesthetic zone has become a viable treatment option with regard to function and aesthetics.

Achieving satisfactory soft tissue aesthetics still remains a challenging and unpredictable task.

Thus in case of insufficient bony width and height, staged bone grafting procedures are often considered mandatory to enable proper implant placement.

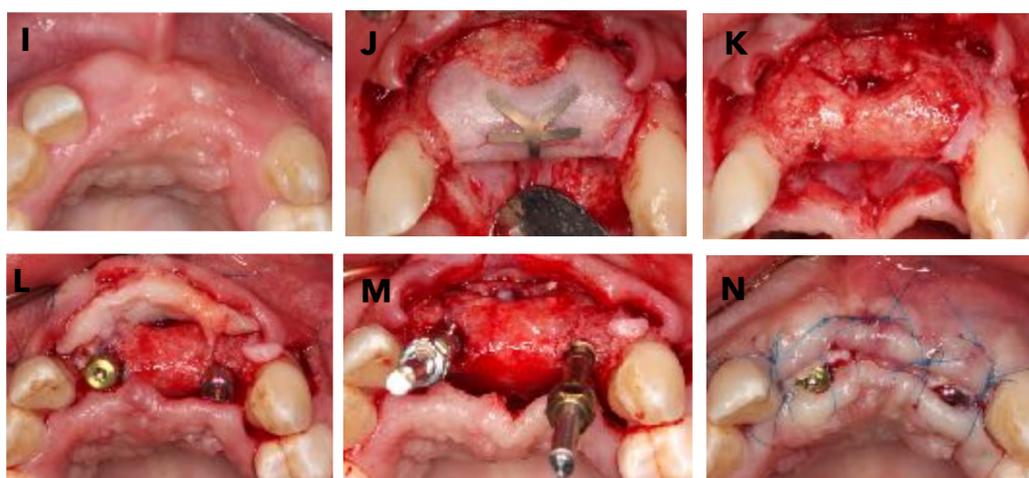
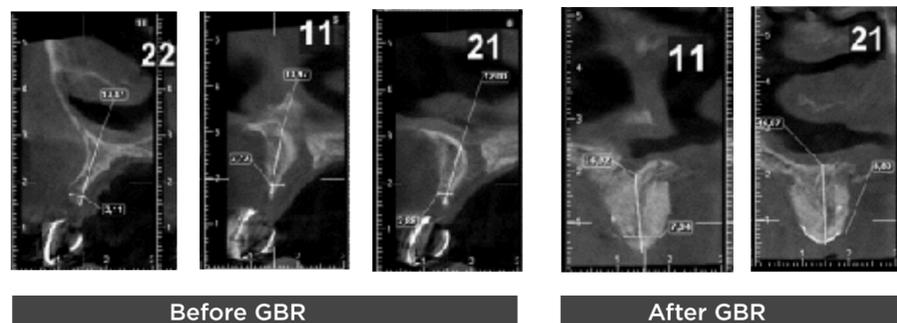
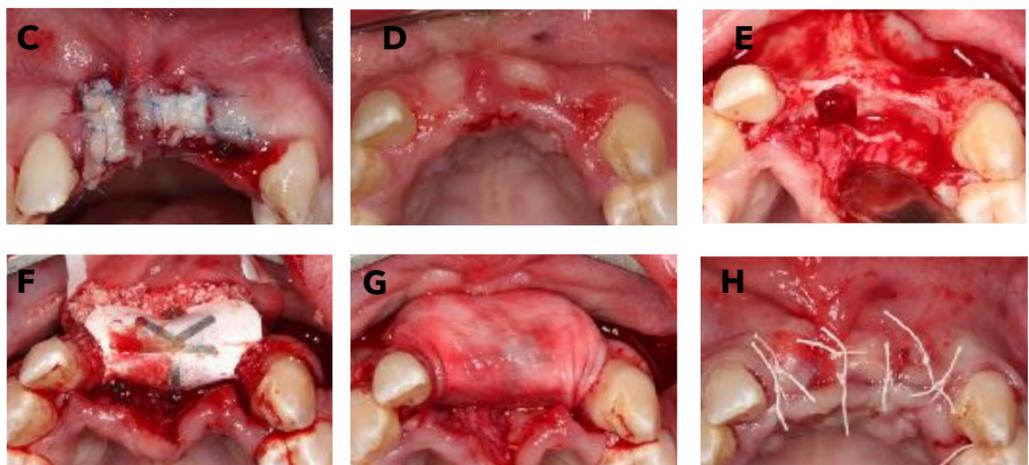
In presence of localized severe alveolar bone resorption in the anterior maxilla, ridge reconstruction with GBR could be a successful option without resorting to the use of autogenous bone which can be associated to great morbidity and a longer intervention.

In this case the soft tissue management started the day of the extraction with a free gingival graft as an alveolar ridge preservation technique.

Conclusion

Guided bone regeneration associating bone substitute and a non resorbable membrane is one of the most documented technique and is still up to date.

This ridge reconstruction technique enabled achieving a satisfactory result in a challenging situation.



References

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