

Esthetic And Functional Rehabilitation Of Patient With Amelogenesis Imperfecta

Abstract

Amelogenesis Imperfecta (AI) is a heterogenous genetic disorder that disturbs the developing enamel structure. It can have major esthetic and functional impact on the patient. The present case highlights the treatment in such a scenario

Key Words

amelogenesis imperfecta esthetics rehabilitation

Introduction

Amelogenesis imperfect is a condition we routinely encounter in our clinical practice

The degree of defect varies from patient, a severe presentation has a debilitating esthetic and functional impact on the patient. The following case report highlights the management of such a case.

Case Report

A 14yrs old male patient reported to the clinic with the complaint of inability to chew his food properly and also suffered from esthetic inadequacy and sensitivity of his teeth. He expressed extreme dissatisfaction with his appearance. A detailed medical and dental examination was performed including photographs and dental radiographs. (Fig 1,2,3)

Amelogenesis Imperfecta (AI) is a heterogenous genetic disorder that disturbs the developing enamel structure.^[1] This rare ectodermal defect leads to a variety of clinical manifestations due to agenesis, hypoplasia, and/or hypomineralisation of the enamel.^[2]

In the present case tissue loss affected all the teeth. Enamel had a mottled appearance with a yellow brown discoloration. The mottled enamel had the same radiodensity as dentin. It was concluded that the patient likely suffered from a hypomaturation type of Amelogenesis Imperfecta. The family history reported no such evidence of such a condition.

Oral hygiene was not judged satisfactory at the first visit although the patient demonstrated a good knowledge of



Fig 1



Fig 2

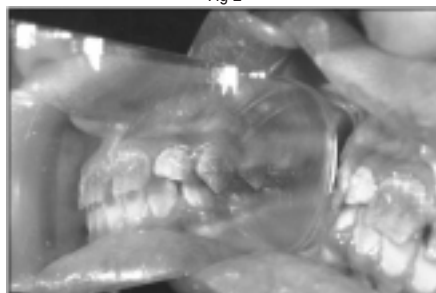


Fig 3



Fig 4

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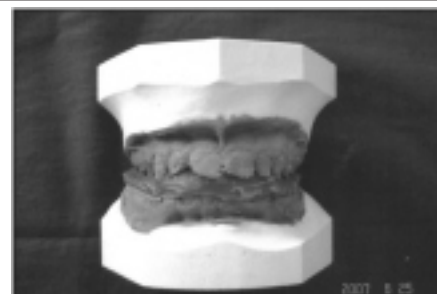


Fig 5



Fig 6

correct oral hygiene, this could be probably due to the sensitivity of teeth. A decreased occlusal vertical dimension was evident.

A treatment plan was developed with the main objectives to raise the vertical dimension of teeth, enhance the esthetics, restore masticatory function and eliminate the teeth sensitivity.^[3]

The vertical dimension of the teeth was increased by 2mm by means of an acrylic splint for 3 weeks (Fig 4,5,6). After

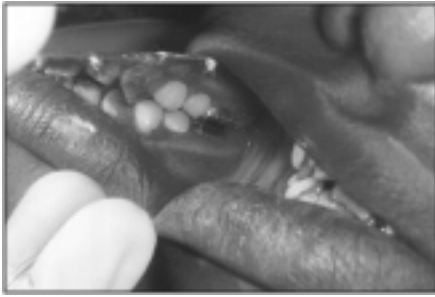


Fig 7

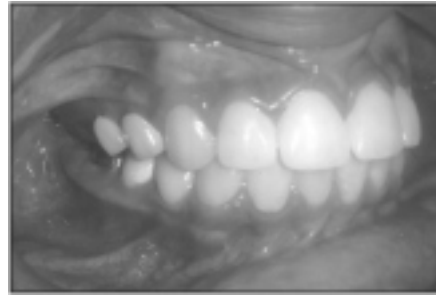


Fig 12

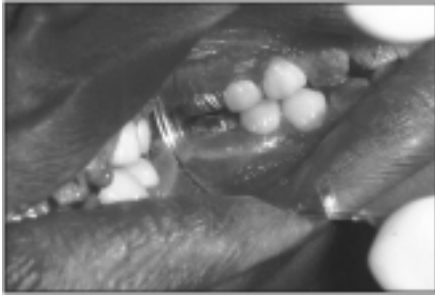


Fig 8



Fig 13



Fig 9



Fig 14

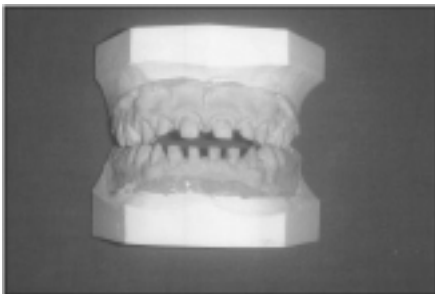


Fig 10



Fig 15



Fig 11



Fig 16

opening of bite, maxillary and mandibular first molars were prepared for full crown restorations which were then restored with glass ionomer luting cement. (Fig 7,8,9)

Keeping in mind the smile line of the patient and functional requirements, maxillary and mandibular first and second premolars were prepared for porcelain fused to metal crown with

porcelain facing.

Taking into consideration the thickness of teeth in anterior segment and the age of patient, elective root canal treatment was done for maxillary and mandibular anterior teeth followed by preparation of all ceramic crowns which were then cemented with resin cement. (Fig 10,11,12,13,14,15)

After the restorative procedures, dental hypersensitivity of the patient was reduced satisfactorily and satisfactory function and esthetics was established.

The patient was recalled after two months. The patient's oral hygiene was satisfactory. The restorations remained with no discoloration, crazing or carious lesions. The patient's esthetic and functional expectations were satisfied.^[4]

(Fig 16)

Conclusion

With the above mentioned treatment, patient was treated not only from a functional and esthetic standpoint, but also from a psychosocial standpoint by upgrading his quality of life and helped in reinforcing his self-esteem.^[5]

References

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