MANAGEMENT OF AMELOGENESIS IMPERFECTA
(Amelogenesis Imperfecta Tedavisi)

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ÖZET

Amelogenesis imperfecta, diş dokularında gelişim yetersizliği, dişle hava assi ve estetik bozuluk ile karakteri, ender rastlanan bir mevcut anormalidir. İleri düzeydeki amelogenesis imperfecta hastalarının tedavisi, dişhekimleri için oldukça karmaşıktır.

Estetik şikayetleri olan 20 yaşındaki erkek amelogenesis imperfecta oğuzu; protetik olarak tedavi edilerek özgüvenin artırması sağlanmıştır.

Anahtar Kelime: Amelogenesis imperfecta, Metal des-tekli seramik.

INTRODUCTION

Amelogenesis Imperfecta is a hereditary disorder that disturbs the formation of the dental enamel both in the primary and the permanent dentition. Resulting in poor development or complete absence of the enamel of the teeth.\(^{3,4}\)

It occurs in the general population in the approximate range of 1 in 14,000 to 1 in 16,000.\(^{5,6,8}\)

It can occur as 2 main types, hypocalcification and hypoplasia. The hypocalcified type is the most common form of amelogenesis imperfecta.

Enamel hypocalcification is a defect in the mineralization; the teeth are often stained yellow to dark brown. The enamel may show a chalky dull color or a cheesy consistency and may rapidly break down.

Hypocalcified teeth have a normal shape when they erupt but have an abnormal color and dull appearance. Loss of enamel from wear and staining tend to increase with age hypoplasia is a defect in the formation of the enamel matrix.\(^{9}\)

Therefore, the entire enamel of primary as well as permanent teeth is affected, the teeth may or may not be discolored and often there is considerable occlusal wear.\(^{10}\)

The disorder may create unaesthetic appearance, dental sensitivity and attrition.

in these patients, the pulp and dentin are usually normal and the teeth are caries resistant.\(^{11}\)

Amelogenesis Imperfecta cases can tax the skills of the clinician, numerous treatments have been described for rehabilitation of amelogenesis Imperfecta in adults and children.\(^{9,12}\)

SUMMARY

Amelogenesis imperfecta is a rare developmental abnormality of enamel, the main clinical problems of which are extensive loss of tooth tissue, poor aesthetics and tooth sensitivity.

The treatment of patients with severe forms of amelogenesis imperfecta presents an interesting challenge to the dental team. A 20 year old male presented with poor esthetics had lowered first self-esteem.

The final treatment result provided this patient with aesthetics that greatly enhanced his self-image.

Key Words : Amelogenesis Imperfecta, porcelain-fused-to-metal crowns

CASE REPORT

The patient a 20 year old male, was referred by his general dental practitioner to the department of prosthodontics. The patient expressed extreme dissatisfaction with his appearance, and his mother confirmed that the patient had been socially affected by this problem. The teeth were yellow (dentin), irregular in shape and much smaller than would normally be expected. There were congenitally missing teeth and an anterior open-bite. Attrition of the molars had resulted in decrease of the vertical dimension of occlusion. (Fig. 1)

Fig 1: The appearance of 20 years old male patient's teeth with amelogenesis imperfecta.

The roots of all teeth appeared to be normal in shape and size in radiographic evaluation. However, the teeth had rather large pulp chambers that would increase the risk of pulpal damage during tooth preparation.

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The patient was informed of the diagnosis and all the possible treatment options. The patient and his mother expressed little concern about the ultimate conservation of the teeth and was insistent on a full oral rehabilitation.

The patient was placed on an intensive oral hygiene program because of his inadequate oral hygiene. Following periodontal treatment teeth were prepared porcelain-fused-to metal crowns and fixed partial dentures were considered when the preparations were made. Teeth were reduced to allow for 1.5 mm of restorative material on the occlusal and incisal surfaces. The margins were prepared with a wide chamfer. Final impressions were taken with an addition cured silicone impression material. Accurate occlusal relation records were obtained and the casts were articulated on a semi-adjustable articulator. Finished and polished porcelain-fused-metal crowns and fixed partial dentures were cemented. (Fig 2)

CONCLUSION

The cosmetic rehabilitation of a patient with amelogenesis imperfecta has been described. The restoration of aesthetics and function in patients with amelogenesis imperfecta may be achieved with a dedicated team approach.

The use of modern dental materials and a justifiable reliance on the predictable artistic abilities of the dental technologist allows both aesthetic and durable restorations.

REFERENCES

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Fig 2: After prosthetic restoration of the same patient.

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