COMMENTARY

INTERDISCIPLINARY APPROACH TO TREATING A PATIENT WITH AMELOGENESIS IMPERFECTA: A CLINICAL REPORT

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Akin and his colleagues pictorially capture the challenges in restoring permanent dentition in patients with amelogenesis imperfecta (AI). With its characteristic surface morphological irregularities and irregularly positioned surface discolorations, AI creates an esthetic restoration challenge for several reasons. The irregularities in enamel formation in AI are so significant in many cases that malformations in the form of the teeth cause spacing and crowding problems. Teeth can sometimes overlap, and areas of the teeth that are most affected may be missing so much enamel that dentin is exposed, causing sensitivity and other problems. In addition, it is not known exactly what effect the malformations in enamel have on the ability to bond or cement to the enamel surface in patients with AI.

In the present case, teeth were restored with laboratory-fabricated ceramic and metal-ceramic restorations. This patient apparently had no previous esthetic or functional treatment of his teeth. Sensitivity was reported as significant, which is typical in prolonged exposure of teeth affected by AI. The patient also reported to be concerned about the esthetics of his anterior teeth, which would be expected given the appearance as noted in the pretreatment photographs. It is noteworthy that the patient had not been significantly concerned about his anterior esthetics until age 24 when his teeth were restored. He certainly could have suffered significant self-image effects in addition to the sensitivity if the teeth were indeed never repaired prior to age 24.

Definitive treatment with laboratory-fabricated restoration was selected as the best alternative in this case. This was likely because of the patient's preferences, the extent of damage to the teeth, and in consideration of compensation issues. Ayna and colleagues[1] reported on two patients with AI where direct-bonded resin composite veneer procedures were performed within the anterior teeth. It was specifically mentioned that cost was a factor in their decision to do so. These authors were in agreement that, because of the concerns about obtaining a long-term seal and bond to the affected enamel of AI patents, in the long term, AI patients would benefit from definitive treatment with laboratory-fabricated restorations.

Kwok-Tung and King[2] recently reported on the challenges in the restoration of mixed and primary dentitions in patients with AI. They talked about using orthodontic separators prior to treatment to gain some space before restoration, as AI-affected teeth often exhibit space loss because of extensive deficiencies in the enamel thickness, and also because of enamel loss as a result of the lack of structure in the enamel that does exist.

Patients with AI can be effectively managed with direct and indirect restorative techniques, but must be followed carefully and extensively over the long term. In this case reported by Akin and colleagues, a multidisciplinary approach to treatment provided the patient with relief from his sensitivity, as well as better function and a significantly improved esthetic situation. Each case of AI is unique, and warrants careful consultation with a variety of experts to obtain the best outcome.

REFERENCES

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