COMMENTARY

A CONSERVATIVE TREATMENT FOR AMELOGENESIS IMPERFECTA WITH DIRECT RESIN COMPOSITE RESTORATIONS: A CASE REPORT

Joel Berg, DDS, MS*

Patients with amelogenesis imperfecta (AI) present with a complex set of problems for the clinician. The solutions to those problems are equally complex. Given that nearly all solutions of a clinical nature used in dentistry are premised upon the presence of normal and healthy dentin and enamel, many questions arise when developmentally related structural changes in these tissues exist. When the structure of dentin or enamel is altered in a significant way developmentally, the ability to bond, adhere, or otherwise retain restorative materials of any sort to the teeth might be compromised.

This case report by Sabatani and Guzmán-Armstrong does a nice job in articulating the multitude of issues at hand when dealing with an adolescent with AI. The report began with the actual diagnosis of the level of severity and type of AI. The patient's oral hygiene and other pertinent factors were assessed, leading toward a treatment plan that considered the patient's restorative needs based upon the patient's age, developmental status, and willingness to comply with home-care recommendations. Such assessment of the willingness to comply with home-care recommendations is particularly critical when dealing with patients whose the enamel is already compromised. The authors focused much of their attention on instilling the importance of frequent professional visits and professionally applied fluoride treatments. In addition, a concentrated version of a toothpaste was prescribed to the patient for twice-daily use.

The restorative treatment plan included a variety of restoration types, depending upon the caries attack risk to each tooth, the severity of the effect on the individual tooth, and the eruption status of the tooth. Therefore, a variety of restorative materials were used, including a range from high powder-to-liquid ratio glass ionomer restorative material for partially erupted occlusal surfaces to stainless steel crowns, as a "transitional" extracoronal/full-coverage material for those teeth that were most severely affected but were not developmentally "ready" for precision-made crowns. In this range, where esthetics was of greater concern, direct-bonded composite restorations were placed after initial analysis via a diagnostic wax-up.

Although this adolescent patient was scheduled to receive orthodontic treatment to correct several aspects of his malocclusion, such treatment was not performed currently, as it was a priority to deal with the AI-imposed enamel defects first. Yet, throughout the case, the authors discussed the need for eventual orthodontic treatment and therefore consider such future treatment in the planning of the restorative techniques engaged in at this time.

This well-reported case of AI demonstrates the opportunity to plan the best care for patients with AI based upon patient age and developmental status while managing esthetics and caries control concerns. A combined cariesmitigating and esthetic approach is possible only when a variety of treatment choices are implemented and the careful management of the patient, as was the case here, is retained during the critical period of adolescence, where much can go wrong if not managed otherwise.

*Professor and Lloyd and Kay Chapman chair for Oral Health, University of Washington School of Dentistry, Seattle, WA, USA

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