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Tooth Wear

With an ageing UK population retaining teeth into later years, patients with tooth wear, often severe, may be regularly encountered in general practice. Patients can present from all areas of the age spectrum. Many of these patients can be effectively managed in the primary care setting with routine risk assessments and screening, and further progression can be prevented. Although the evidence base alludes to a clear awareness of the condition among general dentists (which is hardly surprising given that tooth wear is third most common form of dental condition after dental caries and periodontal disease) undertaking routine risk assessment and the use of clinical index for tooth wear charting, remains inconsistent.[1] This is likely to contrast with routine periodontal (index-based) screening.

The driving factors behind decision-making in clinical practice are often diverse. However, the fear of litigation or regulatory challenges, the impact of the healthcare system under which care is provided/funded, and the standard of undergraduate training are likely to be influential. There is limited information about the perceptions of teaching of tooth wear at the undergraduate level. Ambiguity remains with the diagnosis of this condition, such as with the lack of agreement on the use of a given clinical index for routine screening. The restorative management of tooth wear may also be complex, requiring a good working knowledge of clinical occlusion, dental aesthetics, the available dental materials, and their application. While rehabilitation of the severely worn dentition may sometimes be beyond the scope of practice for a general dental practitioner, forming a rudimentary diagnosis and providing preventive care should be a reasonable expectation.

As part of this themed issue, we have explored this important topic and have included a range of articles to address the diagnosis and management of tooth wear – approached in a pragmatic, predictable, and ethical way. We are of course, deeply indebted to our colleagues (both national and international) who have contributed to this special issue. Many of these individuals have had a significant role in shaping contemporary practising habits with

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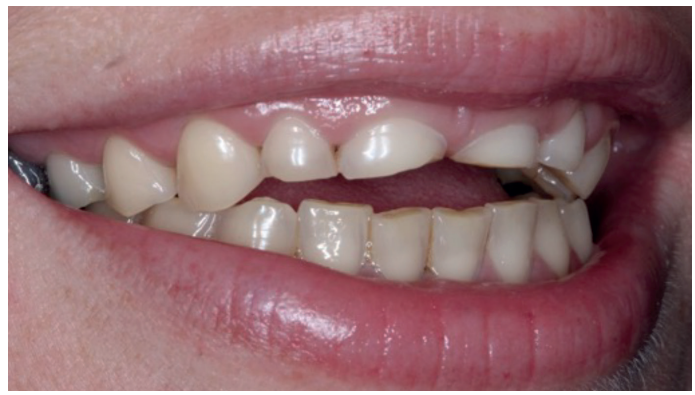

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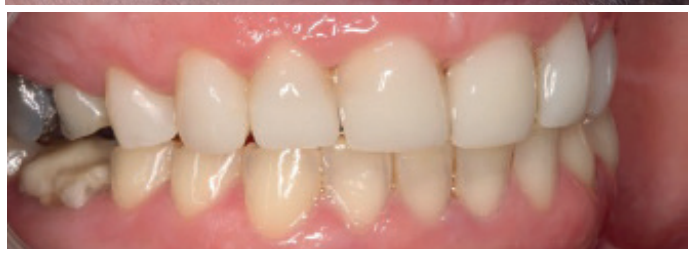

Figure 1. (a) A patient with chronic bulimia with the maxillary anterior teeth severely eroded. **(b)** She was treated with additive pragmatic composite bonding from her first premolar to first premolar in one session, using a three-bottle system, without mounted diagnostic models or a laboratory wax-up or matrices. (From Kelleher and Ayub in this issue.)

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tooth wear management and research. On this note, the themed issue commences with an article by Ken Hemmings, about the changing attitudes towards tooth wear treatment. In 1997, Ken first jointly published a ground-breaking article in *Dental Update* about the treatment of localized anterior tooth wear, using composite resin restorations at an increased vertical dimension. This work has paved the way by which many dentists restore localized tooth wear, by minimal intervention. This approach strongly challenges the consistent need for (unnecessary) invasive, conventionally retained indirect fixed prosthetic restorations. With time, further evidence has emerged to support the effective use of these techniques and dental materials, as well as the techniques that can be used to predictably restore both localized and generalized tooth wear (Figure 1). Research from contributory authors has provided good support for the prescription of direct resin composite for rehabilitation of the worn dentition. This approach offers a means of 'test-driving' planned (often complex) changes to a patient's functional scheme and aesthetics, in an adjustable and minimally invasive manner and has distinct benefits.

There are of course, limitations with the prescription of restorative treatments for the rehabilitation of severe tooth wear. The use of direct composite for the treatment of tooth wear is no exception and failures, of both a repairable and catastrophic nature will be encountered, especially among 'higher-risk patients,' such as those with severe bruxism. Longevity will, logically, be supported using good clinical technique. Restorative treatment should be delayed and executed only when it is appropriate, with preference given to the use of additive treatment options.[2] Nevertheless, patients must be carefully counselled when attaining informed consent, to include the maintenance needs of the restorations, as well as the possible merits of the intervention with their quality of life.[3]

This issue also explores techniques used for the restorative management and treatment of tooth wear alongside effective counselling and monitoring. Managing tooth wear in the young patient as well as emphasis on a multidisciplinary approach to treatment planning for advanced and complex cases, where the treatment need exceeds the prescription of restorative care, to include orthodontic and surgical intervention are also presented.

We hope readers of *Dental Update* will find this issue a source of evidence-based information relating to this important topic, which can then help guide them in general dental practice. We are indebted to our colleagues, nationally and internationally for their generous contributions to this issue.

References

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