

A collaborative effort

Russell Tant presents a case of severe dental erosion that was treated in collaboration with two of his specialist colleagues.

In this case, the patient was referred by his general dental practitioner to our multidisciplinary specialist practice for treatment for severe erosion. The patient, a 47-year-old male, was unhappy with the appearance of his teeth and his speech had begun to be affected by the issue.

Medically, the patient was fit and well, though his notes revealed that he consumed at least two cans of high sugar, carbonated drinks per day and had been previously diagnosed with bruxism. The examination showed that the patient had very little posterior support and the remaining posterior teeth had over erupted. Periodontically, his gums were healthy with no concerns. On examining the extent of the erosion, it was found that the upper right central incisor was non-vital and, therefore, required root canal treatment along with the upper right lateral incisor. This was carried out in the early stages of treatment.

At this time, the patient was informed that crown lengthening of the upper anterior teeth would be necessary as well in order to achieve a successful restoration. As such, treatment options were discussed, including all the advantages and disadvantages of each modality – this allowed the patient to make a fully informed decision and proceed with the treatment plan. Because the lower anterior teeth also showed signs of dental erosion, the patient was very keen to improve the appearance of his lower anterior teeth too.

Before treatment could get underway, my colleagues and I had to plan to increase the vertical dimension so that we would be able to effectively restore



Fig 1.



Fig 2.



Fig 3.



Fig 4.



Fig 5.

the posterior teeth back to retruded contact position. A full wax up was also completed and the therapy and fees were agreed with the patient via written consent.

Thereafter, my colleague Rupal Patel, who is a specialist periodontist, successfully carried out a crown lengthening procedure on the upper six anterior teeth – this was undertaken palatally. The patient eventually had four posterior dental implants placed in the upper right and lower left quadrants by my colleague William Murphy, an implant surgeon. The implants in the lower left support a three-unit bridge to replace the missing lower molars. We also placed eight crowns in order to restore the upper anterior teeth.

To rectify the patient's concerns regarding the appearance of his lower anterior teeth, we carried out



Fig 6.



Fig 7.



Fig 8.

composite build-ups of the mandibular anterior teeth to the new vertical before restoring with lava crowns in the upper and the implants with bonded crowns. To help prevent further damage, the patient has been given a bite guard to wear at night.

In order to achieve the intended results, this case required a multidisciplinary approach. This multidisciplinary protocol has been developed over 20 years in that the one restorative dentist is the sole treatment co-ordinator leading this patient's treatment. This ensures a continuity of treatment and clear communication between specialists and, thanks to the team's collaborative effort, the patient is extremely happy with the outcome. As well as achieving an aesthetic outcome, which was the patients primary concern, his speech has improved and he can now eat foods that he had not been able to for many years prior to treatment. As a result, he now has a lot more self-confidence.

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