Clinical Case Spotlight

Indirect Single Visit CEREC Tessera Onlays

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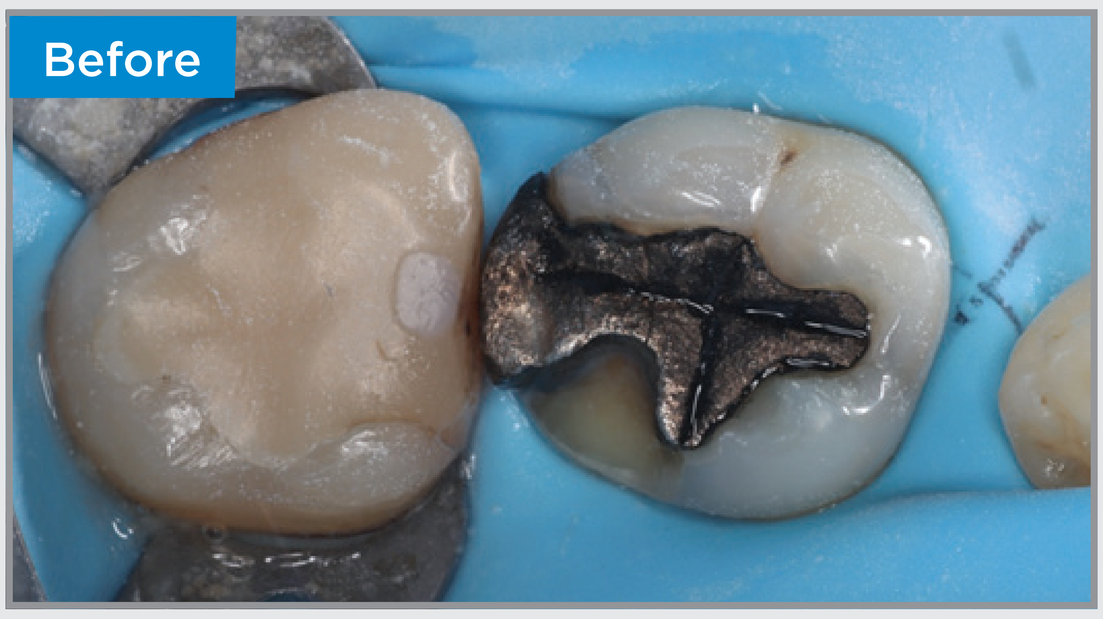
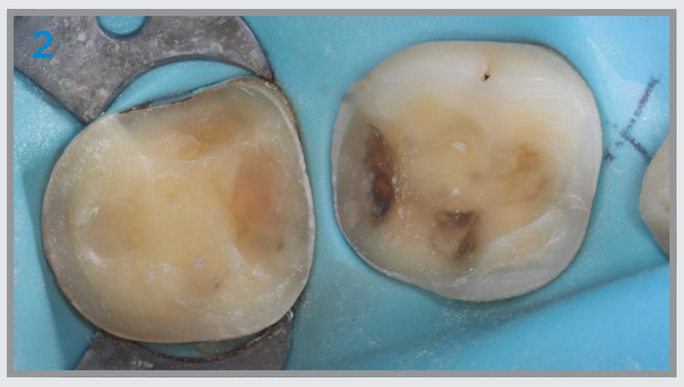
Introduction to the case

It is quite common to observe cracks and fractures associated with amalgam restorations, particularly as they increase in size as they are ‘unbonded’ restorations. Many of these teeth are structurally compromised and an adhesive, biomimetic approach is the ideal method of restoring these teeth. As a part of a more comprehensive treatment plan, this quadrant was planned to have two indirect ceramic onlays. The first and second molars were restored in a single visit using CEREC Tessera, an advanced lithium disilicate.



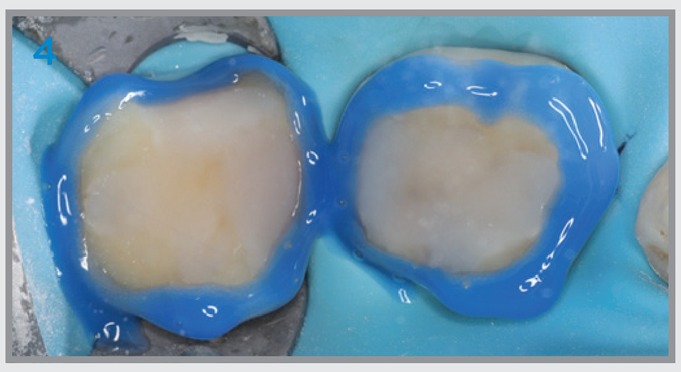
Treatment steps

Pre-operative condition. Heavily restored and compromised molars. Fractured distopalatal cusp on the first molar and failing composite restoration on the second molar.



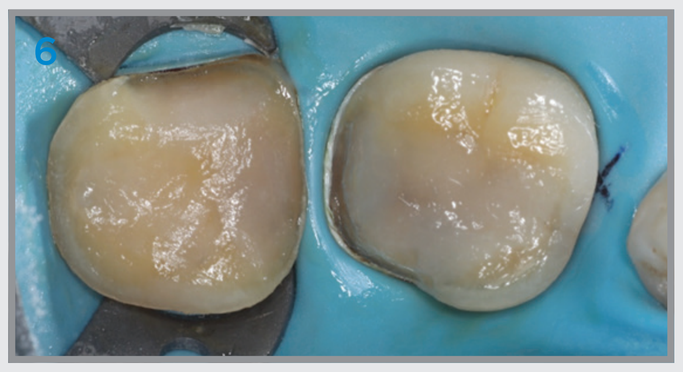
Existing restorations and caries removed. Confirmed with caries indicator dye.

Biobases constructed. Immediate Dentine Sealing (IDS), resin coating and an ideal platform for ceramic onlays created. Final preparations.



Selective enamel etch following sandblasting with aluminium oxide.

Side view of preparations prior to ceramic bonding.



Adhesive applied and polymerised.

Two CEREC Tessera ceramic onlays bonded.

Rubber dam removed.
Immediate post-operative.

Material and Method

Restorations made using CEREC Primescan, Primemill and CEREC Tessera CAD/CAM blocks

Discussion and Conclusion

The use of CEREC and advanced ceramic materials is the ideal approach for biomimetic restorative dentistry. This treatment approach allows there to be sufficient time for the dentine bond (IDS and Resin Coat) to achieve maximal bond strengths and allows teeth to be restored with materials that mimic the natural structures of dentine and enamel.

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