

A 90-minute CEREC Tessera Advanced Lithium Disilicate Onlay on Tooth 47

Case Description

A 20-year-old female patient underwent endodontic therapy on her lower right 2nd molar and was referred for the final restoration. A full-coverage minimal preparation restoration was planned. A chairside onlay was fabricated using the new high strength ceramic - CEREC Tessera ALD. An HT A2 block was used since the underlying tooth substrate was not discolored. The superior esthetics of CEREC Tessera combined with the very short processing time resulted in a very short total treatment time. Following the principles of onlay preparation, the tooth was prepared with a minimal overall thickness of 1mm. The preparation was followed by an IO scan using the CEREC Omnicam. The onlay was designed in CEREC Software and was milled in approximately 14-16 minutes in the Fine Mode in the CEREC milling machine. DS Universal Stain & Glaze materials were used to add additional characterization. A single-step program in the CEREC SpeedFire lasting 4:30 minutes was used to finish processing. The tooth was isolated using a rubber dam. The restoration was etched for 30s using 5% HF acid, and silane was applied. Adhesive cementation of the onlay was carried out with Calibra Ceram Adhesive Resin Cement. No occlusal adjustment was required & the soft tissue healed uneventfully. At 1 month follow-up, patient reported no issues with the restoration.

Discussion

Given the clinical situation, a minimally prepared occlusal onlay was the best choice of therapy. CEREC Tessera offers the right balance of high strength, fracture resistance & esthetics. Adhesive cementation under rubber dam isolation ensured complete control of the clinical procedure. The fast processing time ensured the patient was out of the chair in 90 minutes, ensuring she could attend to her university lectures in the afternoon.



Dr Aniruddha Nene
Pune India



Before:

Pre-operative clinical scenario after endodontic therapy



After:

1 month after the CEREC Tessera onlay was bonded.

Clinical Images



1. Pre-Op



2. Tooth isolated ready for adhesive cementation



3. After

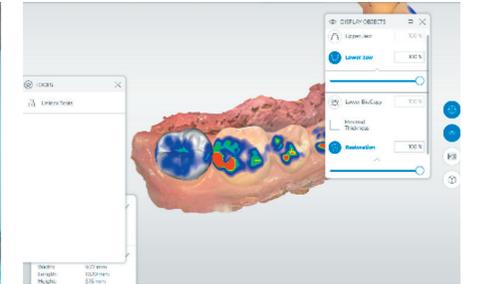
Workflow Images



1. Pre-Op



2. Prep



3. Scanned & Designed in CEREC Software



4. Buccal view of the preparation



5. Onlay Stained & Glazed Using Ds Universal Kit . Processed in 5 mins



6. Bonded with Callibra Ceram



7. Immediate Post-Op



8. Post-Op IOPA



9. 1 month post-OP