

## A DIGITAL IMPRESSION TECHNIQUE TO TRANSFER AN ACCURATE EMERGENCE PROFILE FOR IMMEDIATELY LOADED IMPLANT-SUPPORTED RESTORATIONS

Introduction: Immediate loading protocols have some advantages such as protection of peri-implant tissues and meeting aesthetic expectations. Provisional restorations have the benefit of imitating the form of natural teeth. But reflecting the emergence profile to the final restoration can be difficult. Various methods have been described to transfer the emergence profile. As digital dentistry evolves, the use of digital workflows in implant-supported prosthesis impressions is increasing.

Case description: A young patient applied to our faculty due to crown destruction in her right upper first premolar tooth. After the examination, it was decided to extract the tooth. Immediate implant placement and immediate loading were planned. An acrylic provisional crown was loaded within 24 hours. After the completion of osseointegration and having an aesthetic emergence profile, the impression stage for final restoration was started. To transfer the emergence profile in the most accurate way and to avoid the collapse of gingiva, 3-stage digital impression was preferred. In this method, the provisional crown was first scanned with an intraoral scanner followed by a second scan after removal of the crown. Finally, a third scan was made with a standard scan body and imported into the software. These three scans were combined in a CAD software for the final restoration. The restoration was designed as a screw-retained zirconia crown, preserving the emergence profile.

Discussion: Cylindrical structure of the impression posts is not sufficient for transferring the emergence profile to the impression, so it has been stated that modifications should be made in the impression posts. Although the peri-implant soft tissue can be captured by digital scanning, it begins to change right after the removal of restoration. In order to prevent this situation, the 3-stage digital impression method is thought to be a fast and successful approach for accurately transferring the emergence profile.

Key words: Digital impression, emergence profile, immediate loading