

DENTISTRY AND MAXILLOFACIAL SURGERY

July 12, 2022 | Webinar



Mustafa Gsiebat

Madrid Complutense University, Spain

Received date: 13-06-2022 | Accepted Date: 14-06-2022 | Published Date: 05-09-2022

Fully digital workflow using a dual scan impression technique for immediate loading full mouth implant rehabilitation: A case series

Statement of the Problem: The immediate loading protocol has become increasingly popular due to the progressive growth in demand for a reduction in treatment times. The possibility of applying this protocol would be depending on certain important factors. Application of the digital workflow in the mentioned protocol guarantees the rapidity, precision, and aesthetics. This case series aims to describe a fully digital workflow using a dual scan impression technique to fabricate immediate fixed complete dentures for zygomatic and standard implants.

Methodology: All patients were looking for fixed full mouth rehabilitation. Clinical and radio-graphical analyses were undertaken. The treatment planning was discussed with every patient and informed consents were sought and obtained. The treatment commenced by digital impressions of the upper and the lower prostheses. The scan information constituted the first stereolithography (STL) file. Both prostheses were removed, and another digital impression of soft tissues was undertaken to create a second STL file. During the surgery, transmucosal abutments were placed on all implants, after suturing the positions of implants were recorded using the stereophotogrammetric technique and creating a third STL file, the soft tissues after suturing were rescanned creating a fourth STL file, all STL files were aligned to have the virtual final models. The pre-design after virtual modifications was aligned with the definitive models, the provisional prostheses were milled and placed after six hours from the surgery.

Conclusion & Significance: The dual-scan technique presented in this report might be effective with immediate and definitive screw-retained fixed complete dentures (FCDs), with this technique the time is reduced, the cumulative errors of conventional impression technique and the stitching discrepancy of IOs can be avoided, the clinician and patients are highly satisfied.

Recent Publications:

1. Aleksandrowicz P, Kusa-Podkańska M, Grabowska K, Kotuła L, Szkatuła-Lupina A, Wysokińska-Miszczuk J. Extra-Sinus Zygomatic Implants to Avoid Chronic Sinusitis and Prosthetic Arch Malposition: 12 Years of Experience. *J Oral Implantol*. 2019 Feb;45(1):73–8.
2. Agliardi EL, Romeo D, Panigatti S, de Araújo Nobre M, Maló P. Immediate full-arch rehabilitation of the severely atrophic maxilla supported by zygomatic implants: a prospective clinical study with minimum follow-up of 6 years. *Int J Oral Maxillofac Surg*. 2017 Dec 1;46(12):1592–9.
3. Suarez MJ, Paisal I, Rodriguez-Alonso V, Lopez-Suarez C. Combined Stereophotogrammetry and Laser-Sintered, Computer-Aided Milling Framework for an Implant-Supported Mandibular Prosthesis: A Case History Report. *Int J Prosthodont*. 2018 Feb;31(1):60–2.
4. Peñarrocha-Diago M, Balaguer-Martí JC, Peñarrocha-Oltra D, Balaguer-Martínez JF, Peñarrocha-Diago M, Agustín-Panadero R. A combined digital and stereophotogrammetric technique for rehabilitation with immediate loading of complete-arch, implant-supported prostheses: A randomized controlled pilot clinical trial. *J Prosthet Dent*. 2017 Nov;118(5):596–603.

DENTISTRY AND MAXILLOFACIAL SURGERY

July 12, 2022 | Webinar

5. Revilla-León M, Rubenstein J, Methani MM, Piedra-Cascón W, Özcan M, Att W. Trueness and precision of complete-arch photogrammetry implant scanning assessed with a coordinate-measuring machine. *J Prosthet Dent.* 2021 Jun 18;S0022-3913(21)00280-8.

Biography

Gseibat graduated from the Faculty of Dentistry of the University of Benghazi in Libya 2009. He received his specialty degree in Prosthodontics from the University of Madrid Complutense in 2018, he received her specialty degree in Dental Implantology from University of Seville in 2020 and he received her MSC degree from University of Madrid Complutense in 2020. He lectured nationally and internationally on many Prosthodontic topics primarily. He has published scientific articles. He is currently in the Clinical Master of Prosthodontics and Occlusion of the University Of Madrid Complutense as a collaborator and in a private practice limited to surgical reconstruction implant surgery and Prosthodontics in Benghazi, Libya 3 times per year.

mam@ucm.es