An overview and assessment of the contemporary work flow of CAD/CAM technology for fabricating fixed dental restorations

CAD/CAM technology is an innovative digital system capable of scanning prepared teeth planned to receive crowns, bridges, inlays and other restorations. CAD/CAM systems, like CEREC, E4D system and several others, provide a better, faster and more convenient method for fabricating restorations. The fast growing popularity of these systems requires setting up criteria for evaluating the technology and simplifying the methods of how it is taught and practiced. In addition, several major dental schools throughout the United States have already adopted this technology for both education and clinical patient care. The technology improves the experience for both the professional and the patient, contributes to a positive reputation of the practice, and may increase clinical productivity and income. Overall, CAD/CAM technology is the present and future of dentistry. This presentation provides an overview of CAD/CAM digital technology, and compares the workflow of the new and the conventional technology. The presentation enumerates the important points of comparison between different CAD/CAM systems, the important criteria for evaluating systems, selecting the system that meets the operator’s needs and reviews the advantages and limitations of the current systems on the market. The presentation concludes with a case presentation highlighting one specific limitation common in some systems which is designing specific occlusal schemes and provides an innovative solution for that limitation based on a recent publication by the author. The discussion provides an overall deeper understanding of CAD/CAM systems and prepares the audience for evaluating and selecting the appropriate systems for their practice.

Biography
Tarek El Kerdani has received his Dental degree from Cairo University, Egypt in 1985. In 1991 he entered the Prosthodontics specialty program at Indiana University School of Dentistry (IUSD), US and received his certificate of specialty in Prosthodontics in 1994, followed by Master of Science in Dentistry (MSD, Prosthodontics) in 1996. In 2010 he accepted a position as a full time Clinical Associate Professor of Prosthodontics at University of Florida Collage of Dentistry (UFCD) and is currently the Director of fixed Prosthodontics II in addition to clinical teaching and faculty practice. He has several publications in the Journal of Prosthetic Dentistry, Journal of Prosthodontics and Med EdPortal.

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