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Guest Editorial

Fixed restorations failure: Is occlusion the key?

Oral rehabilitation is one way to restore the form or aesthetic and function; which is being impactful on general health. The successful rehabilitation in patients after restoration sometimes unfortunately correlates with the failures that is believed to be caused by occlusion problems or excessive wear. The predisposing factors include improper mastication, excessive stress, other functional problems including bruxing, clenching, and craniomandibular disorders. In advanced implant dentistry, the concepts of occlusal restoration has become a cutting edge. Today's concepts and research on occlusal loading and overloading are essential in order to deliver best clinical outcome and biomechanical function. The major points to be considered include occlusal vertical dimension, sufficient posterior support, and both anterior and lateral guidance to provide not only comfort, but also aesthetic. Understanding the occlusal concepts should be based on knowledge of physiology of masticatory system. It is a highly organized group of maxillae and mandibular bones, teeth, joints, neuromuscular and vascular elements that are responsible for moving the mandible. Other approach on delivering occlusal restoration is gnathology. The gnathological concepts consist of the concept of centric relation, anterior guidance, occlusal vertical dimension, intercuspal design, and the relationship of mandibular movements. Centric relation (CR) represents the relationship of the mandible to the maxilla. When there is a deflective occlusal contact, sometimes it involves the asymmetrical position of the condyle within the glenoid fossae, either anteriorly, posteriorly, or superiorly. It is also important to note that the anterior teeth protect the posterior teeth during eccentric movement, and vice versa in maximal intercuspation; it is when anterior guidance developed. In my point of view, occlusion is one key to be considered in the failure of good fixed restoration, either using Zirconia, Emax, or good implant strength. It is not only a matter of material chosen, or dental laboratory procedures imprecision; however occlusal restorative plays a role in influencing long-term restoration stability.

Reference

1. Sheridan RA, Decker AM, Plonka AB, Wang HL. The role of occlusion in implant therapy: A comprehensive updated review. *Implant Dent* 2016; 25:829-838.

2. Klineberg IJ, Trulsson M, Murray GM. Occlusion on implamts - is there a problem? *J Oral Rehab* 2012; 1-16.

3. Gross MD. Occlusion in implant dentistry. A review of the literature of prosthetic determinants and current concepts. Aust Dent J 2008; 53(1 Suppl):S60-S68.

4. Pokorny PH, Wiens JP, Litvak H. Occlusion for fixed prosthodontics: A historical perspective of the gnatohological influence. *J Prosthet Dent* 2008; 99:299-313.

5. Saba S. Occlusal stability in implant prosthodontics - Clinical factors to consider before implant placement. *J Can Dent Assoc* 2001; 67:522-526.

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