

## Novel Method to Expedite Early Healing of Dental Implant

Dental treatment using endosseous implants has revolutionized prosthetic dentistry and caused a paradigm shift in how missing teeth are restored. However, dental implants are not without complications, both biological and technical. An emerging problem with dental implants is their susceptibility to peri-implantitis. It is estimated that peri-implantitis is present in at least 9% of dental implants placed in function or in 20% of subjects receiving dental implants.<sup>[1]</sup> Therefore, strategies that improve osseointegration and enhance implant healing, and strategies that prevent and ameliorate peri-implantitis and improve implant success rates are sorely needed.

One strategy, the use of low-dosage biophotonics for therapy, is investigated in a recent systematic review.<sup>[2]</sup> Low-dosage biophotonics, or photobiomodulation (PBM), involves the use of low-intensity laser and may have potential in enhancing early healing of dental implants, which may in turn improve osseointegration and reduce the propensity for future biologic complications.<sup>[3-5]</sup> However, existing knowledge in this area is controversial and very limited.

The manuscript authored by Zayed and Abdel Hakim<sup>[2]</sup> attempts to remedy this deficiency. The Patient, Intervention, Comparison, Outcome question investigated “In patients receiving dental implants, does PBM postoperative application increase the incidence of successful osseointegration?” was designed to assess the clinical utility of PBM as a potential therapeutic tool to improve healing. The authors identified seven manuscripts from their searches in PubMed, Cochrane Library and EMBASE, five of which were randomized controlled trials. The majority of the manuscripts included exhibited low risk of bias, which also adds to the overall value of this systematic review. Although available evidence is scarce, the authors report that PBM may be potentially beneficial when used during the implant-healing phase. However, more randomized clinical trials are needed before we can truly understand if PBM benefits are clinically significant. Therefore, it would be interesting to see what the future holds for PBM and whether it will ever be a clinically viable modality to improve healing of dental implants.

Finally, as this Issue is being published at a time when the entire world grapples with the COVID-19 pandemic, I am hopeful that the collective efforts of governments,

healthcare professionals, researchers and the general public will be successful in controlling this pandemic.

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