

Periodontal regeneration: Where do we stand now?

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Complete regeneration of the periodontium remains an elusive goal with current treatment modalities. A number of emerging technologies are being examined that can improve the outcome of periodontal regeneration. These include the application of protein and peptide therapy, cell-based therapy, genetic therapy, application of scaffolds, bone anabolics, and lasers. As emerging technologies, by definition, most of these therapies lack high levels of evidence. Currently, there are numerous human clinical trials in varying stages of completion that are attempting to delineate the best applications of the emerging therapies.

Emerging technologies are presenting options to hopefully improve the outcomes of regeneration in challenging clinical scenarios. Cellular allografts represent a current technology in which cells and scaffolds are being delivered directly to the periodontal lesion. Recombinant human fibroblast growth factor 2 and teriparatide (parathyroid 1-34) have each been tested in controlled prospective human randomized clinical trials, and both have been shown to have potential for periodontal regeneration. These examples, as well as other emerging technologies, show promise for continued advancement in the field of periodontal regenerative therapy.

At present, there are indications that emerging technologies can be used successfully for periodontal regeneration. Case reports and clinical trials are being conducted with a variety of emerging technologies. However, many are yet to be approved by a regulatory agency, or there is a lack of evidence-based literature to validate their expanded use. This presentation will review the existing modalities of the periodontal regeneration and its future perspective.

Biography:

Manoj Humagain completed his MDS, at Kathmandu University, 2008 and BDS, Gauhati University, India 2003. Presently he was associate professor in Kathmandu University School of Medical Sciences.