Editorial

Periodontal Health 2020: The Future Outlook

In spite of immense accomplishments in oral health of population worldwide, tribulations still remain in many communities all over the world—predominantly among underprivileged groups in developed and developing countries. Periodontal diseases have been considered the most imperative global oral health burdens. As dentistry glances ahead to 2020, it's likely to endeavor and exultantly anticipate the circumstances and inclinations that will shape the profession and the face of oral healthcare largely. In some occasions, expansions and innovations in an area may come to bear on another, helping to expand our horizons in respects to clinical trial and research.

A key objective of periodontal investigative procedures is to provide valuable information to the clinician regarding the present periodontal disease type, location and severity. These findings serve as a foundation for treatment planning and provide essential data during periodontal maintenance and disease-monitoring phases of treatment.

The future periodontal goal will focus on the following:

- ***Diagnostic biomarkers:*** The future research will focus on more advanced biotechnology based diagnostic biomarkers, like nanochips, biosensors, salivary fluid assays, genetic markers, computerized and light beam activated oral cancer screening devices along with oral fluids for the diagnosis of oral and systemic diseases and for drug development.
- ***Genetic manipulation and epigenetic:*** Genetic testing for periodontal disease susceptibility pivots on measuring a gene which regulates the production of inflammation mediators. Epigenetic events act through the amendment of chromatin and can selectively trigger or inactivate genes, shaping their expression. The epigenetic procedure, by inducing a transformation in cytokine silhouette, may consequently persuade the pathogenesis and establish the outcome of many oral diseases. Periodontal sensitivity testing with gene manipulation and epigenetic will be future goal for optimal oral health.
- ***Treatment modalities:*** Biomimetics, CBCT-3D technology in dental implants, oral plastic surgical techniques, minimal invasive dentistry and stem cell transplantational therapy for periodontal regeneration will be the line of future treatment modalities.
- ***Transoral robotic surgery (TORS):*** Seventy-five percent of oral cancers are linked to modifiable behaviors, such as tobacco use and excessive alcohol consumption. Other factors include poor oral hygiene, irritation caused by ill-fitting dentures and other rough surfaces on the teeth, poor nutrition and some chronic infections caused by bacteria or viruses (HPV 16). Reconstructive surgery may be required to give an acceptable cosmetic and functional result. A huge potential will focus on surgical treatment for early stage head and neck cancers with advance TORS procedures.
- ***Research and development:*** More advancement in technology development for nanotechnology, probiotics, periodontal vaccine and oxygen stimulated mouth rinse, toothpaste and powder like use of sodium chlorite.
- ***Optimal dental hygiene:*** Complete oral hygiene will be the key to achieve superlative oral health. The new FDA approved innovative devices, like dental air force home dental system will emerge as true alternative for conventional tooth brushing in regular practice. Clinical studies have proven that dental air force home dental cleaning system is more competent in biofilm removal, reduces CRP level and more effective oral hygiene device as compared to tooth brush.
- ***Dental informatics:*** Application of computer and information science to improve dental practice, research, education and management.

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