We have periodontology has advanced: A critique of current trends in the field

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Over the past 20 years there have been some exceptional advances made in periodontology. Many of these have led to changes in our thinking and our approach to periodontal therapy. In 1999, the American Academy of Periodontology (AAP) devised a “new” classification system for the periodontal diseases. From this some 50 different types of periodontal conditions were identified which were considered worthy of individual classification. Clearly this was an unwieldy system and in reality it was distant from the three main types of plaque-associated periodontal diseases: gingivitis, chronic periodontitis and aggressive periodontitis.

While the appropriateness of the terms “chronic” and “aggressive” have been debated they have served as a framework for both clinicians and researchers to define specific types of periodontitis with identifiable clinical parameters. It also provided a framework for understanding management protocols and outcomes. Nonetheless, over time it has become evident that such a classification system (chronic and aggressive) may be too simplistic because of the heterogeneity of the periodontal diseases. Therefore, it may be timely to revisit such a classification system and determine whether current understanding of the epidemiology and pathophysiology of these diseases can be used to better define them.

However, it is worth noting that in the past 25 years there have been at least 10 different classification systems proposed, none of which have been fully adopted. Clearly there remain a number of important challenges in this field. Since chronic and aggressive periodontitis are heterogeneous groups of diseases, for example, there will be unique subcategories based on their multifactorial nature basis of microbial, host response and thinking of how the subgingival microbiota interacted not only with itself but also the host. Notwithstanding this, research through the 1990’s and 2000’s began to question the role of the biofilm and its component bacterial consortia in the overall process of periodontal disease development. While it was very clear that periodontitis cannot, and most notably in the presence of bacteria, it was becoming increasingly obvious that clinically there were some patients who, despite the presence of considerable plaque deposits, had become very compelling. Indeed the relevance of oral health to overall health and general well-being was recognised by the US Surgeon General in a landmark publication titled “oral Health in America”. This document for the very first time articulated the importance of oral health in an holistic approach to medical care. Despite the title, it concluded that oral health was a vital part of the global scene. From this the concept of periodontal medicine gained further traction and its central hypothesis stated that periodontal infection and inflammation presents a significant chronic inflammatory burden at the systemic level.

While there is considerable work still to be done significant progress has been achieved in the past decade. Diabetes is now well recognised to be a significant risk factor for development of periodontitis and conversely periodontitis has been considered to be a significant modifying or risk factor for glycaemic control in diabetes. Other conditions for which there is good evidence to support interrelationships with periodontitis include cardiovascular disease, rheumatoid arthritis, obesity and renal disease. It remains to be established whether treatment of periodontitis has any impact on systemic conditions...

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