

Immune Response in Periodontitis and Modulatory Value of Staphylococcal Antigens

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Abstract. Periodontal disease is a plaque microbiome related, that disrupts the homeostasis of the periodontium and the supporting alveolar bone. The aim of this brief review is to offer the reader the theoretical background of the current status of immunomodulatory therapies used in the management of periodontitis using staphylococcal antigens. In response to the hypothesis that *Staphylococcus aureus* helps ameliorate periodontal disease, the National Development Institute for Microbiology and Immunology Cantacuzino, Romania, produced the “Staphylococcal D Vaccine”. The proponents of this product claim that Staphylococcal Vaccine is highly efficacious in the management of periodontitis particularly in patients with clinical signs of edema, papillary hypertrophy, bleeding on probing, and pockets > 7 - 8 mm in depth. Although the mechanism of action of staphylococcal antigen vaccines is elusive as yet, it appears that such vaccination leads to a dramatic reduction in periodontal inflammation, and periodontal pocket depth. However, more research is required to obtain conclusive data on the subject.

Keywords: *Staphylococcus*; immune response; periodontitis; inflammation; modulation