SUBGINGIVAL IRRIGATION OF DIFFERENT ANTI-INFLAMMATORY SOLUTIONS IN ADULT PERIODONTITIS

- A COMPARATIVE CLINICO-BIOCHEMICAL STUDY

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Dissertation submitted to the Rajiv Gandhi University of Health Sciences, Bangalore, Karnataka, in partial fulfillment of the requirements for the degree of Master of Dental Surgery, in the speciality of Periodontics September 1999 There is ample evidence in the literature to support the concept that oral bacteria and their metabolites play a dominant role in the etiology of destructive periodontal diseases. ^{37,70,95} Recently, however, several authors have emphasized the role of the host's immunoinflammatory responses as important components in the pathogenesis of periodontal tissue destruction. ^{5,29,73,79,80,83,88}

Elevated levels of inflammatory mediators (e.g., arachidonic acid metabolites) are implicated in tissue destruction of various inflammatory diseases (e.g. rheumatoid arthritis)^{91,110} as well as periodontitis.⁸³

Considerable research efforts have been undertaken to explain the mechanisms and interactions of host cells in the synthesis and release of arachidonic acid (AA) metabolites within normal and inflamed periodontal tissues. ^{21,35,75,76,81}

Previously, the use of antimicrobial agents such as systemically and locally delivered antibiotics and antiseptics has been considered appropriate in some patient categories as an adjunct to the non - surgical forms of periodontal therapy, including scaling, root planing and surgical procedures. Consequently various research projects have evaluated the additional therapeutic benefits of selected antimicrobial agents in the management of periodontal infections. 87,100

It is accepted that arachidonic acid metabolites have an important role in the initiation and progression of periodontal disease and now it is considered that