

# **EFFICACY OF DIFFERENT ANTIMICROBIAL AGENTS FOR SUBGINGIVAL IRRIGATION (A CLINICO-MICROBIOLOGICAL STUDY)**

Certificate

This is to certify that the dissertation "EFFICACY OF  
DIFFERENT ANTIMICROBIAL AGENTS FOR SUBGINGIVAL  
IRRIGATION" is a Clinico-Microbiological Study & is a record of a  
study work done by the candidate Dr. Shashikanth Hegde for the M.D.S.  
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Periodontium is highly vulnerable to disease process. Bacterial plaque and their biologically active products have been implicated as the primary etiologic agents of periodontal disease.<sup>8,56,62,72,92,93,107</sup> There is a universal acceptance that the gingival sulcus is under continuous challenge by bacterial plaque and provides a suitable site for harbouring various microorganisms. These microorganisms damage the tissues by releasing various toxins, enzymes and metabolic products which are considered important in causation of gingivitis and periodontitis.<sup>54,90</sup>

Subgingival microbiota harbours more than 200 bacterial species.<sup>23</sup> Many of which have the periodontal pocket as their main habitat. A distinct difference exists between composition of supragingival and subgingival plaque. Supragingival plaque exhibits accumulation of predominantly gram positive coccoid cells whereas subgingival plaque is characterized by flora predominated by gram negative anaerobic organisms including *Actinobacillus actinomycetemcomitans*, *Bacteriodes gingivalis*, *Bacteriodes intermedius*, *Eikenella corrodens*, *Fusobacterium nucleatum*, *Wolinella recta* and a high percentage of spirochetes.<sup>23,56,93</sup> The appearance of a subgingival pathogenic gram negative microbial flora is undoubtedly related to anaerobic environment inherent in pockets that facilitate proliferation of such microorganisms.<sup>21</sup>