

## **Título: "NON-ORAL" PATHOGENS IN THE SUBGINGIVAL MICROBIOTA ASSOCIATED WITH PERIODONTAL DISEASES**

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### **Resumo:**

The role of bacterial pathogens of medical importance in the microbiota associated with periodontal diseases remains unknown. The current study evaluated the frequency of detection of pathogenic bacteria not normally considered residents of the subgingival microbiota in subjects with different periodontal conditions. Subgingival plaque samples were obtained from 608 individuals (periodontal health = 123; gingivitis = 79, chronic periodontitis = 309; aggressive periodontitis = 97) and analyzed for the presence of 24 bacterial species by checkerboard DNA-DNA hybridization. Significant differences among clinical groups were determined by Mann-Whitney and Kruskal-Wallis tests. The most frequently detected species were *Neisseria* spp. (53.3%), *P. anaerobius* (49.6%), *E. saphenum* (42.5%), and *C. difficile* (42.4%). *A. baumannii* was significantly more prevalent in patients with periodontitis (38-40%), whereas *C. difficile* (40-60%) and *D. pneumosintes* (58-73%) were more predominant in patients with gingivitis and periodontitis than healthy controls ( $p < 0.05$ ). Individuals with aggressive periodontitis harbored higher frequency of *Neisseria* spp. (42%) and *F. necrophorum* (49%) compared to other clinical groups, and patients with chronic periodontitis presented high prevalence of *S. pneumoniae* and *H. influenza* (42%,  $p < 0.05$ ). In contrast, *B. fragilis* (39%), *S. enterica typhi* (32%), *S. aureus* (36%), and *S. marcescens* (38%) were detected more often in periodontally healthy individuals in comparison to patients with periodontal diseases ( $p < 0.05$ ). Medically important pathogenic species are detected with relatively high frequency in the subgingival microbiota and significant differences in the distribution of these species can be observed in various periodontal conditions. The role of these microorganisms in the pathogenesis of periodontal diseases still needs further investigation.

**Palavras-chave:** checkerboard, microbiota, periodontitis.

**Agências de Fomento:** CNPq, FAPERJ e CAPES.