Abstract

Introduction. Porphyromonas gingivalis is considered as a major etiological agent in the onset and progression of chronic destructive periodontitis. Porphyromonous gingivalis fimA type has been correlated to the virulence potential of the strain; therefore this gene could be involved in the ability of P. gingivalis to reach blood stream. Objective. The classifications of P. gingivalis fimA types will be compared in subgingival plaque and blood samples collected after scaling and root root planing of periodontitis patients. Materials and methods. Fifteen periodontitis patients requiring scaling and root planing were enrolled. P. gingivalis isolates were classed to genotype with fimA type-specific PCR assay. fimA gene was sequenced if the isolate was listed as unclassifiable after PCR technique. Results. Six patients showed positive P. gingivalis bacteremia. The most frequent fimA was fimA type II, followed by Ib, III and IV. In blood strains, type II was followed by IV, Ib and III. Conclusion. Type II was the most frequent genotype in blood samples and in subgingival plaque samples. However, no correlation was found between the frequency of any fimA type with SRP induced bacteremia. P. gingivalis fimA type appears to be conserved within individual patients throughout the times of sample collection. fimA gene sequence results were not in agreement with results of fimA genotyping by PCR.

Keywords

Porphyromonas gingivalis, bacteremia, periodontitis, polymerase chain reaction.