Clinical Characteristics Associated with the Presence of A. actinomycetemcomitans – P. gingivalis



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Introduction

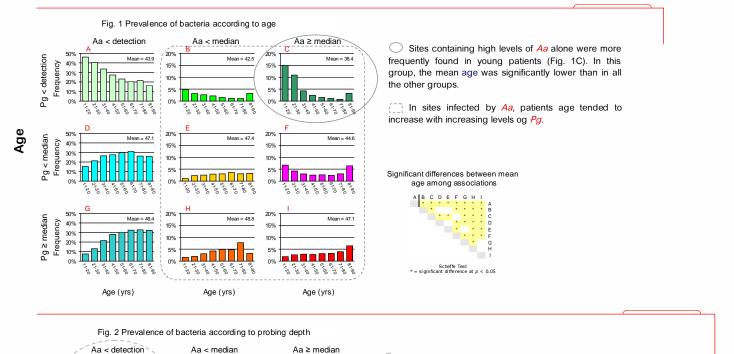
The aim of the study was to evaluate the clinical characteristics associated with the presence of A. actinomycetemcomitans and P. gingivalis at both, the patient and site level. Clinical data included gender, age, smoking habits and probing depth.

Material and methods

The investigation was based on the databank of a commercial laboratory, which provides microbial analysis services (IAI, Zuchwill, Switzerland). Subgingival plaque samples were collected in patients with various forms of periodontal disease. Oligonucleotide probes were used to quantify A. actinomycetemcomitans and P. gingivalis. A total of 33'259 samples from 10'946 patients were included in the analysis. The database was stratified according to bacterial levels using 3 thresholds, e.g. below detection, < median, \geq median, resulting in 9 combinations (A to I).

Results

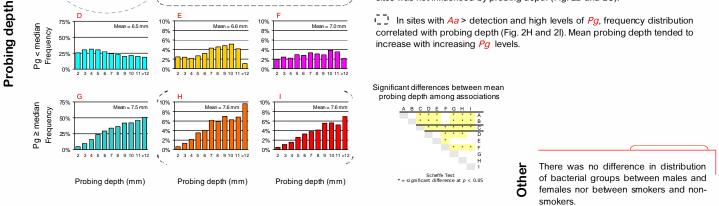
Aa and Pg were detected respectively in 18.0% and 66.5% of the sites. The association Aa-Pg was observed in 12.7% of the sites (E,F,H,I).



Sites with undetectable levels of Aa and Pg was found in higher proportions in shallow pockets (Fig. 2A). Mean probing depth in this group was significantly lower than in all the other groups.

 $\begin{bmatrix} - \end{bmatrix}$ In sites with Aa > detection and Pa < detection, frequency distribution of sites was not influenced by probing depth (Fig. 2B and 2C).

In sites with Aa > detection and high levels of Pg, frequency distribution correlated with probing depth (Fig. 2H and 2I). Mean probing depth tended to increase with increasing Pg levels.



Mean = 7.2 mn

Mean = 7.0 mm

Conclusion

75%

50%

25%

759

50%

Mean = 6.1mm

 Π

Mean = 6.5 mm

8%

6%

4b/

٥%

10%

8%

6%

Pg < detection Frequency

This analysis shows in a population with various periodontal conditions that the association Aa-Pg was not frequently found and that sites with high levels of both species were uncommon

The results also suggest that characteristics of sites with high levels of Aa and Pg or high Pg alone are similar.

Mean = 6.4 mm

Mean = 6.6 mm

8%

6%

4%

2%

0%

8%

6%