Comparative longitudinal study of 2 methods of scheduling maintenance visits: 4-year data

Abstract. 116 subjects were recruited from a population of patients previously treated for adult periodontitis and maintained in periodontal health by means of periodic prophylaxes every 3–6 months. The subjects were divided into a control (C) and a test (T) group. A total of 33 patients in the T group and 47 in the C group completed the 4-year study. The C subjects were examined every 6 months and given a prophylaxis every 3 months. The patients in the T group were examined at similar intervals, but prophylaxes were administered according to the individualized scheme of Listgarten and Shiffter, on the basis of a differential microscopic count of subgingival bacterial morphotypes. Recurrent periodontitis was defined as an increase in probing depth of 3 mm or more from baseline measurements. Teeth so affected were sampled microbiologically when the diagnosis of recurrent disease was made and "exited" from the study for treatment. A control microbial sample was taken at the same time from a previously-defined pooled sample of non-affected surfaces with comparatively high, but stable probing depths. During a 4-year period, more than half of the subjects developed at least one recurrence of disease, and one-third of the subjects had 2 or more recurrences of periodontitis. Disease recurred on approximal surfaces 81% and on oro-vestibular surfaces 19% of the time. There were no significant differences in the rate of disease recurrence between the C and the T group, even though recall intervals in the T group at the 4-year examination averaged 19.4 months and an average of 30.6 months had elapsed since the previous prophylaxis. Both groups exhibited similar plaque index and gingival index scores, similar probing depth and attachment level measurements, and similar proportions of different bacterial morphotypes during the 4-year study. However, differences were noted between examinations for both groups with respect to most of these criteria. This study provides 4-year longitudinal data on the clinical and certain microbiological characteristics of a population of adult patients previously treated for moderate to advanced periodontitis, and subsequently placed on periodontal maintenance. The results indicate that some of these patients may remain in good periodontal health despite the lack of regular tri-monthly recall visits, and that microscopic monitoring of the subgingival microbiota may be of value in identifying these individuals. Our findings also indicate that microscopic monitoring of the subgingival microbiota may not provide sufficient benefits to justify the additional time and labor required to incorporate this technique into a standard regimen of periodontal preventive maintenance.

Key words: periodontal disease; treatment; maintenance care; microscopic monitoring; oral microbiology; recurrent periodontitis.

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Maintenance care is considered an essential component of the overall treatment for patients who have received active therapy for periodontitis. Typically, patients return for periodic visits at intervals of 2–6 months, with most therapists favoring a 3-month recall interval. During these visits, which vary from 30–60 min, the patients generally receive a periodontal examination, a periodontal prophylaxis consisting of scaling and tooth polishing and a review of their oral hygiene practices. This longitudinal study was designed to compare the relative effectiveness of 2 methods of scheduling maintenance visits in preventing the progression of periodontitis in treated patients (Listgarten et al. 1986). One method consisted of scheduling patients at fixed tri-monthly intervals, a common, arbitrarily determined interval for maintenance visits. The other method provided for a variable schedule of maintenance visits, the frequency of which was based on criteria derived from a microscopic analysis of bacterial
morphotypes in subgingival plaque samples (Listgarten & Schifter 1982). Theoretically, a customized schedule based on such a test should improve the effectiveness of the maintenance therapy, i.e., result in a reduced rate of disease recurrence, and/or improve the efficiency with which a patient can be maintained in a satisfactory state of periodontal health by minimizing the time spent on maintenance therapy.

Material and Methods

A description of the population originally recruited for this study and details of the experimental design, examination techniques, and descriptive criteria appear in a previous paper reporting the 2-year results of the study (Listgarten et al. 1986). The following is a brief summary of this information.

The original data set was derived from 116 patients that were recruited from a population of adults with a history of treated periodontitis. Patients had been seen for maintenance visits at intervals of 3–6 months. None of the patients who agreed to participate had any significant medical histories, nor were they taking any anti-inflammatory medication or antibiotics which might have influenced the clinical or microbiological data at the start of the study.

Patients were randomly assigned to 2 treatment groups. Control (C) patients were maintained by means of regularly scheduled tri-monthly maintenance visits. Test (T) patients were assigned maintenance visits at varying intervals. These intervals were based on the results of a microscopic analysis of subgingival plaque samples. A differential count of bacterial morphotypes in pooled samples was obtained from subgingival plaque collected from sites with the 6 deepest probing depth measurements according to a predetermined scheme (Listgarten & Schifter, 1982). According to this scheme, described in greater detail below, the microbiological test outcome directly affects the spacing of maintenance visits.

At the start of each visit, patients in both groups received a microscopic plaque analysis of plaque. Subgingival microorganisms were classified into cocoid cells, motile rods, spirochetes and other bacteria. Regardless of the results from the plaque analysis, C subjects received a periodontal prophylaxis every 3 months. Every 6 months, they received a periodontal examination, prior to having their teeth cleaned. The examination included a full mouth recording of the plaque index (PII) of Silness & Løe (1964), the gingival index (GI) of Løe & Silness (1963), and probing depth and attachment level measurements to the closest mm.

Subjects in the T group were examined similarly every 6 months. However, periodontal prophylaxes were provided according to the outcome of the differential dark field microscopic (DDFM) analysis of the subgingival plaque (Listgarten & Schifter, 1982). When either the % of motile rods or spirochetes equalled or exceeded 15%, or when the combined percentages of these morphotypes equalled or exceeded 20%, the DDFM test was considered to be positive. When these values were not reached, the test was considered negative. Patients who had consistently positive tests were assigned to maintenance visits at relatively short intervals (as short as 1 month), while patients with consistently negative test outcomes tended to be assigned increasingly longer recall intervals. Changes from base line measurements were assessed at each of the subsequent examinations.

Disease recurrence was defined as an increase in probing depth from base line of 3 mm or greater on any of the tooth surfaces monitored. When such a site was detected, a microbial sample was taken from the affected site for analysis by DDFM. A control sample consisting of pooled subgingival plaque from 6 sites in the mouth with the deepest probing depths, but not including the affected site, also was obtained at the same appointment.

Sites with recurrent disease were treated appropriately and excluded from any further analysis. These teeth were considered as “excited” from the study. The number of exited teeth in a subject thus reflects the subject’s relative susceptibility to recurrences of periodontitis.

The clinical and microbiological data were stored in an IBM PC/XT microcomputer using a customized program for data storage and retrieval. For statistical analysis, the data were partially reduced and transcribed to tape for analysis with SAS, version 5.16, on an IBM 3090 mainframe.

The statistical analysis of the measurements for each variable assumed that the data consisted of a series of univariate repeated measures exam-
Table 5. Distribution of bacterial morphotypes among “excited” tooth samples and corresponding pooled control samples for each treatment group and all “excited” teeth. The differences between “excited” teeth and pooled samples were not significant for either treatment group or the combined population.

<table>
<thead>
<tr>
<th>GRP</th>
<th>Cocoid cells</th>
<th>Motile rods</th>
<th>Spirochetes</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>E</td>
<td>P</td>
<td>E</td>
<td>P</td>
</tr>
<tr>
<td>C</td>
<td>34.7±15.3</td>
<td>31.6±10.3</td>
<td>10.6±7.4</td>
<td>11.8±7.1</td>
</tr>
<tr>
<td>T</td>
<td>31.4±15.2</td>
<td>27.4±14.0</td>
<td>9.7±7.3</td>
<td>12.5±9.3</td>
</tr>
<tr>
<td>Σ</td>
<td>33.2±15.3</td>
<td>29.6±12.3</td>
<td>10.2±7.3</td>
<td>12.1±8.1</td>
</tr>
</tbody>
</table>


1N=56. 2N=48. 3N=104.

Scheduling maintenance visits

Results

A total of 33 patients in the T group and 47 in the C group completed the 4-year study. The sex and race distribution is shown in Table 1. A χ² analysis revealed no significant differences in the distribution of sex and race classifications between the two treatment groups. No significant difference was found in the subjects’ age between the two treatment groups. The patients’ age in the C group ranged from 30–77 years (mean 55), while the age of those in the T group ranged from 23–75 (mean 53) (Table 1).

The relatively larger rate of dropout in the T group is attributable in part to the perception by many subjects that their periodontal health was being ne-
Listgarten et al.

Fig. 5. Mean plaque index scores for sampled surfaces only. Control (mean ± SE): 0.67 ± 0.04; test (mean ± SE): 0.67 ± 0.04. The results of the multiple comparison test are shown below. Examinations are listed in ascending order of index score. Examinations with a common underline do not differ significantly from one another.

Examinations: 0 1 2 5 4 8 6 3 7

Fig. 6. Mean gingival index scores for the whole mouth. Control (mean ± SE): 0.61 ± 0.03; test (mean ± SE): 0.62 ± 0.04. The results of the multiple comparison test are shown below. Examinations are listed in ascending order of index score. Examinations with a common underline do not differ significantly from one another.

Examinations: 0 2 1 6 5 7 4 3 8
In the T group, visits were more frequent initially, but decreased in frequency over time (Fig. 1). The cumulative number of visits at the end of each experimental year was 6.5, 8.9, 10.8 and 12.2, respectively. The decreased frequency of recall visits was due to the gradual lengthening of recall intervals from a mean of 4.7 months at the end of the first year to 9.5, 16.7 and 19.4 months at the end of years 2 through 4 respectively (Fig. 2).

As a result of increasing intervals between recall visits, many of the subjects in the T group had not received a periodontal prophylaxis for extended time periods by the completion of the study. The mean number of months elapsed since the last prophylaxis for each of the 4 years is shown in Fig. 3. These were 8.3, 15.0, 22.2 and 30.6 months, respectively, for the end of years 1-4.

Despite substantial intervals without professional prophylaxes, subjects in the T group fared as well clinically and microbiologically as the subjects in the C group. Scores and measurements were obtained for the entire dentition and analyzed either in toto, using all measurements, or as a subsample of the 6 sites sampled microbiologically at each examination, i.e., the sites with the highest probing depths in each sextant.

Mean PII scores are shown in Figs. 4, 5 for the whole mouth and sampled surfaces only. While means for sampled sites were uniformly greater than those for the whole mouth, both graphs show lower mean scores for the first year (examinations 0-2) than for subsequent years for both the C and T group. Whole mouth scores averaged 0.50 ± 0.03 (SE) and 0.48 ± 0.03 for the C and T groups respectively. Sampled sites had the same mean score of 0.67 ± 0.04 for both groups. No significant differences were found between the group means for either whole or partial mouth scores.

Mean GI scores for the whole mouth (Fig. 6) or sampled sites only (Fig. 7) followed a similar pattern of changes over time, with sampled sites averaging slightly higher scores than whole mouth scores. C and T means for whole mouth scores were 0.61 ± 0.03 and 0.62 ± 0.03 respectively, and for partial mouth scores 0.66 ± 0.03 and 0.69 ± 0.04. The differences between groups were not statistically significant in either case. Mean GI scores for both groups tended to increase with time, but did not quite parallel the changes observed for plaque.

Fig. 7. Mean gingival index scores for sampled surfaces only. Control (mean ± SE): 0.66 ± 0.03; test (mean ± SE): 0.69 ± 0.04. The results of the multiple comparison test are shown below. Examinations are listed in ascending order of index score. Examinations with a common underline do not differ significantly from one another.

Examinations: 0 2 6 5 1 7 4 3 8

Fig. 8. Mean probing depths (mm) for the whole mouth. Control (mean ± SE): 2.40 ± 0.04; test (mean ± SE): 2.36 ± 0.05. The results of the multiple comparison test are shown below. Examinations are listed in ascending order of measurement. Examinations with a common underline do not differ significantly from one another.

Examinations: 1 0 5 4 2 7 3 6 8
Fig. 9. Mean probing depths (mm) for sampled surfaces only. Control (mean ± SE): 3.62 ± 0.07; test (mean ± SE): 3.51 ± 0.09. The results of the multiple comparison test are shown below. Examinations are listed in ascending order of measurements. Examinations with a common underline do not differ significantly from one another.
Examinations: 4 7 5 3 1 6 9 2 0

Fig. 10. Mean attachment level (mm) for the whole mouth. Control (mean ± SE): 3.19 ± 0.13; test (mean ± SE): 2.90 ± 0.14. The results of the multiple comparison test are shown below. Examinations are listed in ascending order of measurements. Examinations with a common underline do not differ significantly from one another.
Examinations: 0 1 5 7 4 6 2 8 3

scores. Mean GI scores peaked at examinations 3 and 8.

Probing depth remained relatively stable over the 4-year study period for both whole mouth scores (Fig. 8) and partial mouth scores (Fig. 9). As might be expected on the basis of their selection, sampled sites had higher average probing depth measurements than did the whole mouth. C and T means for whole mouth measurements were 2.40 ± 0.04 mm and 2.36 ± 0.05 mm, respectively, and 3.62 ± 0.07 mm and 3.51 ± 0.09 mm for sampled sites. No statistically significant differences between groups were observed.

With respect to attachment level, there was a small, but statistically significant increase from baseline to subsequent measurements, for whole mouth (Fig. 10) as well as partial mouth scores (Fig. 11). There were no further noteable changes from the 6-month to the 4-year examination. C and T means for whole mouth measurements were 3.19 ± 0.13 mm and 2.90 ± 0.14 mm respectively, and 4.06 ± 0.16 mm and 3.63 ± 0.19 mm for partial scores. No statistically significant differences between groups were observed.

The proportions of coccoid cells in the pooled microbial samples were not significantly different between the C and T groups (Fig. 12). They averaged 35.1 ± 1.1 and 37.7 ± 1.3 for the C and T group respectively. The proportions of coccoid cells were highest during the first 6 months, dropping sharply at the 1-year examination (exam 2). Thereafter, the proportions increased slightly with time, but never reached baseline levels.

The % of motile rods in the C and T groups averaged 9.6 ± 0.5 and 9.0 ± 0.6 respectively (Fig. 13). These means did not differ significantly between groups, nor did they differ between examinations.

The mean proportions of spirochetes throughout the study was similar for the C and T group, with similar means for each group, namely 8.4 ± 0.9 and 8.4 ± 1.0 respectively (Fig. 14). The proportions of spirochetes decreased from baseline through the first 18 months. After stabilizing for the next 18 months, they began to increase again.

The percentages of “other” bacterial morphotypes for both treatment groups increased from the baseline and 6-month examinations to the 1-year and subsequent examinations. There were no differences between the proportions
of other bacteria for the C and T groups. The mean %s for the C and T group were 47.1 ± 1.5 and 45.4 ± 1.8 respectively (Fig. 15).

There was no significant group × examination interaction for any of the variables (p > 0.05). A power analysis was undertaken to determine whether the sample sizes employed in this study were adequate to detect reasonable differences in group means. The results of this analysis revealed that group mean differences as small as 0.15 would be detected with a power of 0.80 or better for PI1 or GI. For probing depth, reasonable power was achieved for mean differences of 0.25 and 0.38 mm for measurements of whole mouth and sampled surfaces respectively. The power for attachment level measurements was not quite as high, with mean differences of 0.50 mm having a power of about 0.60. For the microbial samples, a difference in bacterial proportions between groups of 5% achieved a power of 0.80 or better.

Discussion

The customized recall intervals assigned to patients in the T group resulted in the gradual lengthening of these intervals during the 4-year span of the study. On the average, 2.5 years (30.6 months) had elapsed since patients completing the 4th year of the study received their last prophylaxis. Yet, despite this prolonged lack of periodontal instrumentation, the patients in the T group fared as well as the C patients both clinically and microbiologically. These results confirm similar findings reported earlier in a population of patients with gingivitis (Listgarten et al. 1985).

The two treatment groups did not differ from one another with respect to either PI1 or GI scores, PD or AL measurements, or proportions of bacterial morphotypes in subgingival scrapings. Both groups experienced recurrences of periodontitis with relatively few subjects accounting for the majority of dental surfaces with disease recurrence. This is in accord with reports from other studies (Löe et al. 1978, Hirschfeld & Wasserman 1978, McFall 1982, Goldman et al. 1986, Wilson et al. 1987). The slightly higher proportion of disease recurrences in the T group was not significantly different from that reported for the C group.

Our findings that the molars and upper first premolars were more subject to

Fig. 11. Mean attachment level (mm) for sampled surfaces only. Control (mean ± SE): 4.06 ± 0.16; test (mean ± SE): 3.63 ± 0.19. The results of the multiple comparison test are shown below. Examinations are listed in ascending order of measurements. Examinations with a common underline do not differ significantly from one another.

Examinations: 0 1 8 6 7 5 4 2 3

Fig. 12. Mean %s of coccaloid cells at the various examinations. Control (mean ± SE): 35.1 ± 1.1; test (mean ± SE): 37.7 ± 1.3. The results of the multiple comparison test are shown below. Examinations are listed in ascending order of measurements. Examinations with a common underline do not differ significantly from one another.

Examinations: 0 1 8 6 7 5 4 2 3
Fig. 13. Mean %s of motile rods at the various examinations. Control (mean ± SE): 9.6 ± 0.5; test (mean ± SE): 9.0 ± 0.6. The results of the multiple comparison test are shown below. Examinations are listed in ascending order of %s. Examinations with a common underline do not differ significantly from one another. Examinations: 671385240

Fig. 14. Mean %s of spirochetes at the various examinations. Control (mean ± SE): 8.4 ± 0.9; test (mean ± SE): 8.4 ± 1.0. The results of the multiple comparison test are shown below. Examinations are listed in ascending order of %s. Examinations with a common underline do not differ significantly from one another. Examinations: 012876435

recurrences of disease than the remaining teeth is compatible with previous reports by Ramfjord et al. (1980) and Knowles et al. (1980). These investigators reported that following periodontal treatment, the maxillary molars and premolars were the most difficult to maintain over time, although they concluded that tooth type had relatively little influence on the prognosis following treatment. In a later study, however, Ramfjord et al. (1987) reported that over a 5-year period 16 out of 17 teeth lost for periodontal reasons were multirooted.

The results reveal that in a typical patient population a substantial number of individuals are able to remain in satisfactory periodontal health despite the lack of regular prophylaxes. Microscopic monitoring appears to be helpful in identifying these individuals, yet the patients receiving customized recall appointments do not have a decreased rate of disease recurrence as compared to the control patients.

Alternative explanations must be considered in interpreting these results. The rate of tissue destruction may be so slow that the method of detecting disease employed in this study is not sensitive enough to demonstrate a significant difference between the treatment groups during the 4-year span of observation. It is also possible that the lag time for disease recurrence, following withholding of prophylaxes for an average of 2.5 years, may not be long enough to produce a detectable increase in the recurrence of disease in the T group, as compared to the C group. Finally, it is not certain whether patients selected for longer recall intervals by the microscopic test are actually more resistant to disease recurrence than a randomly selected group of T patients of the same size, who would be denied access to periodontal prophylaxes for a comparable period of time. For ethical reasons, it is difficult to justify such a comparative study; therefore, the assumption that DDFM analysis of subgingival bacteria can reliably identify patients resistant to disease remains somewhat conjectural.

In a previous report, based on 3-year data from the same study population, the reliability of the microscopic data to accurately anticipate future clinical deterioration of the periodontal status of the patients was discussed. The results obtained at that time indicated that regularly administered maintenance
care, such as the care received by the patients in the C group, interfered with the ability of the DDFM data to predict future recurrences of periodontal breakdown in the treated subjects (Listgarten et al. 1986). Predictability was better in patients of the T group who were assigned to increasingly longer recall intervals on the basis of the DDFM data.

It is important to emphasize that optimal recall intervals for patients on periodontal maintenance are not determined by the rate of periodontal disease recurrence only. Caries susceptibility, removal of stain for cosmetic reasons, and other clinical considerations may play a major role in determining the frequency of dental visits for a given patient.

Despite the number of instances of disease recurrence, the mean probing depth measurements (Fig. 8) failed to indicate any evidence of increasing probing depth in this population. This is due to the highly localized nature of periodontal deterioration and its relatively low incidence in patients on maintenance following periodontal treatment.

These characteristics of recurring periodontitis may also account for the erroneous interpretation of results from previously published longitudinal studies. The long-term effectiveness of periodontal therapy reported in the treatment and maintenance studies of Knowles et al. (1979), Pihlstrom et al. (1983), and Lindhe et al. (1984) may have underestimated the incidence of disease recurrence because the majority of surfaces at risk did not deteriorate.

In order to get a more realistic estimate of the recurrence of periodontitis, it is necessary to measure the proportion of surfaces at risk that actually meet predefined criteria of tissue breakdown. When this is done, it becomes possible to make more reliable comparisons between different treatments or maintenance regimens. In the present study, the proportion of exited teeth represents such a measure of disease recurrence. It is a more sensitive method of detecting affected subjects than changes in mean probing depth. Nevertheless, this method still failed to show a statistically significant difference in the incidence of disease between the T and C treatment groups.

The findings in this investigation suggest that the experimental regimen may not provide sufficient clinical benefits to justify the additional labor of incorporating microscopic monitoring of subgingival plaque into the preventive maintenance regimen of patients previously treated for adult periodontitis.

Acknowledgements

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Zusammenfassung

Vergleichende Langzeitstudie zwischen 2 Methoden programmiertcher Nachsorge-Einbestellungen: 4-Jahresdaten

Résumé

Etude comparative longitudinale de 2 méthodes pour établir le programme des visites de maintien: données sur 4 ans

Dans une population de patients traités antérieurement pour une parodontite de l'adulte et recevant des soins de maintien consistant en nettoyages dentaires réguliers tous les 3-6 mois, 116 patients ont été recrutés pour cette étude. Les sujets ont été répartis dans un groupe témoin (C) et un groupe test (T). En tout 33 patients du groupe T et 47 patients du groupe C ont participé jusqu'à la fin de cette étude de 4 ans. Les sujets C ont été examinés aux mêmes intervalles, mais les nettoyages dentaires étaient pratiqués suivant un programme individualisé selon Listgarten et Schiffrer et établi en se basant sur une numération différentielle des types morphologiques bactériens sous-gingivaux. La récidive de parodontite a été définie comme une augmentation de 3 mm ou plus dans la profondeur de dégagement à durée inférieure à 12 mois, ou p3lus. 81% des récidives se faisaient au niveau des surfaces proximales et 19% au niveau des faces linguo-vestibulaires. Il n'y avait pas de différences significatives entre les groupes C et T en ce qui concernait le taux de récidives, bien que les intervalles entre les visites dans le groupe T lors de l'examen de 4 ans aient été en moyenne de 19,4 mois, et bien qu'il se soit écoulé en moyenne 30,6 mois depuis le dernier nettoyage dentaire. Pendant les 4 ans de l'étude, les 2 groupes présentaient des scores semblables pour l'Indice de Plaque et pour l'Indice Gingival, des profondeurs de sondage et des mesures du niveau de l'attaque semblables et des valeurs semblables pour les proportions des différents types morphologiques bactériens. Cependant, on notait des différences d'entre un examen à l'autre dans les 2 groupes pour la plupart de ces paramètres. Cette étude fournit des données longitudinales sur 4 années au sujet des caractéristiques cliniques et de certaines caractéristiques microbiennes dans une population d'adultes traités précédemment pour une parodontite de degré modéré à avancé et recevant des soins de maintien. Les résultats indiquent que quelques uns de ces patients peuvent conserver une bonne santé parodontale, malgré l'absence de visites régulières tous les 3 mois, et que la surveillance de la microflore sous-témoine a été pris au même moment à partir d'un échantillon global, préalablement défini, des surfaces non touchées par la récidive mais présentes des profondeurs de sondage relativement élevées mais stables. Pendant une période de 4 ans, plus de la moitié des sujets ont présenté au moins une récidive de la maladie, et 1/3 des sujets ont présenté 2 récidives ou plus. 81% des récidives se faisaient au niveau des surfaces proximales et 19% au niveau des faces linguo-vestibulaires. Il n'y avait pas de différences significatives entre les groupes C et T en ce qui concernait le taux de récidives, bien que les intervalles entre les visites dans le groupe T lors de l'examen de 4 ans aient été en moyenne de 19,4 mois, et bien qu'il se soit écoulé en moyenne 30,6 mois depuis le dernier nettoyage dentaire. Pendant les 4 ans de l'étude, les 2 groupes présentaient des scores semblables pour l'Indice de Plaque et pour l'Indice Gingival, des profondeurs de sondage et des mesures du niveau de l'attaque semblables et des valeurs semblables pour les proportions des différents types morphologiques bactériens. Cependant, on notait des différences d'entre un examen à l'autre dans les 2 groupes pour la plupart de ces paramètres. Cette étude fournit des données longitudinales sur 4 années au sujet des caractéristiques cliniques et de certaines caractéristiques microbiennes dans une population d'adultes traités précédemment pour une parodontite de degré modéré à avancé et recevant des soins de maintien. Les résultats indiquent que quelques uns de ces patients peuvent conserver une bonne santé parodontale, malgré l'absence de visites régulières tous les 3 mois, et que la surveillance de la microflore sous-

Références


Scheduling maintenance visits

GINGIVALE PAR EXAMENS MICROSCOPIQUES PEUT ÊTRE UTLLE POUR IDENTIFIER CES INDIVIDUS. NOS RÉSULTATS INDICENT AUSSI QUE LA SURVEILLANCE DE LA FLORE MICROBIENNE SOUS-GINGIVALE PAR EXAMENS MICROSCOPIQUES NE DONNE PAS D'ADVANTAGES SUFFISANTS POUR JUSTIFIER LE TEMPS ET LE TRAVAIL REQUIS POUR INCORPORER CETTE MÉTHODE DANS UN PROGRAMME STANDARD DE MAINTIEN PARODONTAL PRÉVENTIF.


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