<table>
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<th><strong>Title</strong></th>
<th>Radiographic alveolar bone loss 5-12 years after periodontal therapy</th>
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<tr>
<td><strong>Author(s)</strong></td>
<td>Ng, DKC; Leung, WK; Jin, LJ; Corbet, EF</td>
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INTRODUCTION

Periodontal treatment aims to increase the functional longevity of teeth. It is generally recognized that continued regular supportive periodontal care (SPC) is an important component of overall periodontal treatment. In a teaching clinic situation, it may not always be possible to offer regular SPC recalls to all patients who have undergone active treatment for chronic periodontitis. Within our clinic some treated patients are therefore given a very clear and detailed account of the benefits of regular SPC and of the possible consequences of a lack of SPC but are discharged with encouragement to make individual arrangements for SPC with oral healthcare providers in the community. A long-term aim of this research is to identify those chronic periodontitis patients who would be most likely to benefit from SPC. Within our clinic situation, it may not always be possible to offer regular SPC recalls to all patients some treated patients are therefore given a very clear and detailed account of the benefits of regular SPC and of the possible consequences of a lack of SPC but are discharged with encouragement to make individual arrangements for SPC with oral healthcare providers in the community. A long-term aim of this research is to identify those chronic periodontitis patients who would be most likely to benefit from SPC.

OBJECTIVE of this component of the study:

To identify factors associated with:
- further obvious radiographically detected alveolar bone loss
- around surviving teeth
- in Chinese patients previously treated (5-12 years prior to recall) for chronic periodontitis
- by students of the Periodontology Clinic of the Faculty of Dentistry, University of Hong Kong in the Prince Philip Dental Hospital (PPDH).
- for whom regular SPC had not been arranged.

METHODS

Subjects

439 patients, treated for chronic periodontitis by final year dental students, having the following characteristics:
- Chinese
- in good health at time of active treatment
- not then pregnant
- pre-treatment panoramic oral radiograph available
- had received no concurrent or known subsequent orthodontic treatment
- whose final periodontal documentation showed
  - no PPD > 5 mm
  - BOP ≤ 20%
  - no more than 5% of sites with PPD = 5 mm
  - no regular SPC in PPDH
  - active treatment completion ≥ 5 years before.

RESULTS

From this pool, 100 patients were selected and invited to attend for:
- questionnaire interview by a trained interviewer,
- panoramic oral radiographic examination,
- clinical periodontal examination (teeth, plaque, BOP, PPD, denture status).

Radiographic Scoring

- one scorer (blinded to questionnaire responses)
- Schei ruler (Schei et al. 1959)
- proportion of root length in bone in mesial and distal aspect of each tooth evident on both pre-treatment and recall radiographs
- bone score – sum of bone scores for all teeth evident on both radiographs

Statistical Analysis

Multiple linear regression between change in bone score and selected variables from the questionnaire data and the clinical examination.

Medical History

AB* were systematically healthy at the time of active treatment (an inclusion criteria). 20 (of the 96) reported a history of onset of systemic disease(s) since treatment completion.

Dentures (Non-wearer vs wearer) 25.551 (8.062) 0.002
Diabetes vs Healthy vs others

Years since treatment -19.854 (5.165) < 0.001
Smoking pack-years -1.306 (0.393) 0.001
Years since completion of treatment

Multiple Linear Regression Model for Change in Bone Score

<table>
<thead>
<tr>
<th>Δ Bone Score</th>
<th>Number Subjects</th>
<th>Cumulative Percentage</th>
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<tbody>
<tr>
<td>&lt; -50</td>
<td>60</td>
<td>65</td>
</tr>
<tr>
<td>-50 to -100</td>
<td>17</td>
<td>85</td>
</tr>
<tr>
<td>-100 to -150</td>
<td>7</td>
<td>93</td>
</tr>
<tr>
<td>-150 to -200</td>
<td>6</td>
<td>100</td>
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DISCUSSION

CONCLUSIONS

From among many potential variables:
- time elapsed since treatment
- continued smoking
- partial denture wearing
- systemic ill-health since treatment
- were found to be associated with evident alveolar bone loss around surviving teeth
- 5-12 years post-treatment in subjects not offered, and themselves not availing of, SPC.

REFERENCE


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Radiographic alveolar bone loss 5-12 years after periodontal therapy.

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