

Fardal O, Johannessen AC, Linden GJ: Tooth loss during maintenance following periodontal treatment in a periodontal practice in Norway. J Clin Periodontol 2004; 31:550-5. (24 Refs)

Purpose: The purpose of this study was 1) to qualify long-term tooth loss due to periodontal reasons in patients who received periodontal therapy followed by maintenance, 2) to evaluate the relation between the initial tooth prognosis and subsequent tooth loss, and 3) to investigate what other factors could predict the actual outcome of periodontal treatment and maintenance as measured by periodontal tooth loss.

Materials and Methods: 100 consecutive patients (68 females and 32 males; mean age: 46 years, range: 25-69 years) who had comprehensive periodontal treatment and attended for 9.8 (SD:0.7), range:9-11 years of maintenance care, were studied. After the completion of the active phase of periodontal treatment and prior to placing the patient on maintenance recall, each tooth was assigned a prognosis. The patients were monitored between one and three times per year by a periodontist for maintenance, or this maintenance was alternated by the general practitioner. Therefore, all patients were seen in total between two and four times per year. During the maintenance period, if there were clinical signs of residual subgingival calculus or persistent inflammation, surgical intervention was performed. All teeth classified as being lost due to periodontal disease were identified. Smoking habits were recorded in terms of the numbers of cigarettes per day and their strength. After collecting the data, odds ratios were calculated and logistic regression analysis was used to assess factors associated with periodontal tooth loss.

Findings and Conclusions: A total of 2436 teeth were studied. The initial assessment included 1972 (81%) teeth with a good prognosis, 346 (14.2%) teeth with an uncertain prognosis, 109 (4.5%) teeth with a poor prognosis and 9 (0.4%) with a hopeless prognosis. The majority (74%) of patients lost no teeth, while a total of 36 (1.5%) of the teeth in 26 patients present after the completion of active periodontal treatment were lost during maintenance due to periodontal reasons. In total, 9 (0.46%) of the teeth with a good initial prognosis in 7 patients were lost. 11 (3%) teeth with an initial uncertain prognosis, 10 (9%) with a poor prognosis, and 6 (67%) with a hopeless initial prognosis were also lost. Second molars were the teeth most likely to be lost. Logistic regression analysis showed 1) male gender (odds ratio: 2.84), 2) older age (> 60 years, odds ratio: 4.02), and 3) smoking (odds ratio: 4.18) are significantly related to the tooth loss. The prognosis of 202 teeth was changed toward worse during the maintenance. 113 teeth were from good to uncertain, 87 were from uncertain to poor, and 2 were from good to poor.

This study showed regular maintenance after periodontal treatment was associated with a low level of periodontal tooth loss as earlier similar studies reported, and male gender, age (> 60 years), and smoking were highly related to the tooth loss during periodontal maintenance period.

Preshaw OM, Heasman PA. Periodontal maintenance in a specialist periodontal clinic and in general dental practice. J Clin Periodontol 2005; 32:280-86. (27 Refs)

Purpose: To monitor the short-term efficacy of periodontal maintenance whether conducted in a specialist periodontal clinic or in general dental practice.

Materials and Methods: Thirty-five subjects (mean age: 45 years old, ranging 31-66 years. 15 males and 20 females, 13 nonsmokers, 9 former smokers, and 13 smokers (average 13cigs/day)) with moderate–severe chronic periodontitis who were referred to the specialist clinic received periodontal non-surgical therapy by an experienced dental hygienist. All subjects had a minimum of 16 natural teeth with at least 8 or more periodontally involve clinical sites (test sites). Following a 6-month healing phase (3-month interval), subjects were randomly assigned to one of two groups: A (n=18, periodontal maintenance by the dental hygienist in the specialist clinic) or B (n=17, periodontal maintenance by the referring general dentist in accordance with written instructions provided by the specialist). All subjects were examined at months 0 (corresponding to 6 months post-completion of non-surgical therapy), 6 and 12. Full-mouth plaque index (PI), % bleeding on probing (%BOP) and probing depth (PD) measurements were recorded by one calibrated dental hygienist. PDs were also recorded at eight test sites which, prior to non-surgical therapy, exhibited PD 5–8 mm, BOP and radiographic alveolar bone loss. Standardized radiographs were taken at test sites at months 0 and 12, and bone changes assessed using digital subtraction radiography (DSR). Collected data were statistically analyzed.

Findings and Conclusions: Statistically significant reductions in mean plaque scores were observed in both groups, and did differ significantly between the group A and B. With respect to mouth mean PD, %BOP, and test site mean PD, no statistically significant changes occurred, nor were there any significant differences between the two groups. However, in the smokers, statistically significant higher mouth means PD than in nonsmokers. DSR analysis revealed that there were no statistically significant differences in mean bone change. However, expressing bone change in mm³ Al equivalents, both groups demonstrated slight mean bone loss overall. During a 12month maintenance phase, clinical improvements remained stable whether patients received periodontal maintenance in a specialist periodontal clinic or in the practice of the referring general dentist.