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2378 Non-surgical periodontal treatment response in male smokers with chronic periodontitis

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Objectives: To study the 12 months healing response after non-surgical periodontal therapy in Chinese male moderate-to-severe periodontitis smokers (test) and never-smokers (control), who were matched for age and mean probing pocket depth (PPD).
Methods: 30 patients (mean age 45.6 ± 6.9 years) were recruited. 17 were smokers (≥ 10 cigarettes/day). They received non-surgical periodontal therapy provided by experienced dental hygienists. Clinical parameters including (PPD), probing attachment level (PAL), presence of bleeding on probing (BOP%), and supragingival plaque (PI%) were assessed at six sites around each tooth, excluding third molars, at baseline, 6- and 12-months post-therapy. PPD and PAL were measured using the Florida Probe[®]. Gingival crevicular fluid (GCF) was also measured at 4 sites in each patient. The significance level was set at 0.008, adjusting for multiple comparisons. **Results:** At baseline smokers had a mean PPD of 2.8mm compared to never-smokers of 2.5mm, $p=0.23$, and percentage of sites ≥ 5 mm was 10.6% in smokers and 8.6% in never-smokers, $p=0.32$. PI% and BOP% were significantly reduced in test (PI%: 77.3%-34.0%, $p<0.008$; BOP%: 50.0%-24.2%, $p<0.008$) and control groups (PI%: 84.9%-25.8%, $p<0.008$; BOP%: 65.4%-25.0%, $p<0.008$) over the 12-month period. Pocket reduction of sites with initial PPD ≥ 5 mm was significantly less in smokers at 6-months (2.2 ± 0.4 mm vs. 2.8 ± 0.6 mm, $p=0.001$) but not at 12-months (2.4 ± 0.4 mm vs. 2.9 ± 0.6 mm, $p=0.016$). PAL gains in both groups were similar. Smokers presented with more pockets ≥ 5 mm at both 6- (2.8 ± 2.1 vs. 0.8 ± 1.2 , $p=0.002$) and 12-months (3.0 ± 2.2 vs. 1.2 ± 1.8 , $p=0.004$). GCF volume was significantly reduced at 6- and 12-months compared to baseline for both groups but the reduction in smokers was less.
Conclusion: The present study indicates that the 12 months healing response after non-surgical periodontal therapy was in general less favorable in male Chinese smokers than never-smokers. Smokers presented with more pockets after non-surgical periodontal therapy.

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