

0612 Predominant Cultivable Microflora on Spent Minocycline Strips

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Objectives: This study investigated the colonization pattern of oral microbes on Minocycline strips used as an adjunct in non-surgical periodontal therapy. **Methods:** Minocycline (1.4 mg/strip) and control strips were applied into all residual pockets (PD > 5mm, > 4 pockets/subject) of chronic periodontitis patients one month after a course of non-surgical periodontal therapy. The clinical experiment was conducted in a double-blind randomised parallel fashion. Strips were inserted into the pockets for 3 days each time on 2 occasions. Chlorhexidine mouthrinses were used during the week of strip placement. Strips were randomly recovered from 14 of the 32 participants (8 tests, 6 controls) at Days 0 (strip inserted, left for 30s, removed), 3 (first strip on removal), 6 (second strip on removal) and were subjected to i) anaerobic culture, ii) Coliforms culture using MacConkey agar, iii) yeast culture using Sabouraud's dextrose agar. **Results:** The mean anaerobic cfu/strip ($\times 10^5$; test/control) were 6/2, 2/24, 2/11 at days 0, 3 and 6, respectively ($p > 0.05$). The corresponding mean proportion of gram-positive species (% total cfu/strip; test/control) were 76%/72%, 83%/74%, 77%/45% with gram-positive cocci being the most predominant species isolated (test 63-83%; control 36-53%). The corresponding mean proportion of gram-negative rods and fusiforms were 21%/27%, 15%/27%, 8%/55% showing significant reduced proportion ($p < 0.05$, Boniferroni multiple comparison) than control in spent strip on day 6. Significantly increased prevalence of coliform bacteria was found on day-6-control strips (83% vs. 25%, Fisher Exact test, $p = 0.01$). Yeasts were occasionally isolated in both groups. **Conclusion:** Assuming the composition of flora on the strips reflects the subgingival flora at that time, the findings indicated that the Minocycline strips maintained a microbial composition compatible with periodontal health by day 6, which was not the case for the control strips.

[Seq #69 - Antimicrobial Therapy, Guided Tissue Regeneration](#)

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