Gupta et al, 2009  
J Contemp Dental Practice

Citation Details: **Comparative evaluation of subgingivally delivered 10% doxycycline hyclate and xanthan-based chlorhexidine gels in the treatment of chronic periodontitis.**

*Gupta R, Pandit N, Aggarwal S et al.*


Design: Randomized, controlled, single center study in 30 patients (90 sites) moderate to advanced chronic periodontitis. Three sites each px randomized to treatment groups: SRP + doxycycline gel* [SRP+DH], SRP + Chlo-Site [SRP+CHX]), and SRP alone [SRP].

Measures: Gingival index (GI), plaque index (PI), probing pocket depth (PPD), and clinical attachment level (CAL) recorded at baseline, 1 month, and 3 months.

Outcome: Significant reductions in PPD and CAL at 1 and 3 months when compared to baseline values (p<0.001) for all treatments. At 3 months, sites treated with adjuncts enjoyed an incremental reduction in PPD of 0.86 +/- 1.0 mm (DH) and 0.66 +/- 1.58 mm (CHX), significantly greater than SRP alone (p<0.02). At 3 months, differences in relative CAL between both SRP+DH (0.80 +/- 0.92) and SRP+CHX (0.63 +/- 1.47) and SRP alone were statistically significant (p<0.02). No significant difference between adjuncts for PPD or CAL.

Bottom Line: A well designed and executed clinical trial. This is the first controlled study demonstrating the clinical benefit of using Chlo-Site as an adjunct to non-surgical periodontal treatment. A positive (doxycycline gel) and negative control (SRP, no adjunct) are included in the study design. Respectable incremental benefits in PPD and CAL are shown, for Chlo-Site, at 3 months.

Claims supported: Using Chlo-Site as an adjunct to scaling and root planing in patients suffering moderate to advanced chronic periodontitis can help deliver incremental gains in clinical attachment level and reduction in probing pocket depth. The gains are in line with those achieved using doxycycline gel, but avoid the need to use an antibiotic with the concordant issues of the emergence of resistant bacterial strains.

* Atridox®