

18-month Assessment of Ozone (O₃) on Root Caries in an ageing population

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Objectives: The objective was to assess the efficacy of an ozone delivery system¹ with orally applied remineralising paste and rinse² for the management of root caries (PRCL's) in an ageing patient group (≥ 60 , mean 70.8yrs, $SD \pm 7$)

Methods: A total of 89 patients with 2 lesions each (178 PRCL's in total) were recruited. The lesions were randomly assigned into two groups; treatment with ozone, and no ozone. Remineralising pastes and rinses were applied to all lesions and dispensed to each patient with instructions. At baseline, 2, 4, 6, 12 and 18 months, the lesions were clinically assessed as soft, leathery or hard.

Results: After 18 months, all 89 patients completed. There were no observed adverse events. At 12 months, 100% of ozone treated PRCL's had reversed from severity index 1 to 0 (i.e., hard and deemed to be re-mineralised), whilst only one of the lesions became hard in the control group ($p < 0.001$). At 18 months, all ozone treated lesions had remained hard. In the control group, 23% had progressed from severity index 1 to 2 ($p < 0.001$); i.e. they had become more severe.

Conclusions: Leathery root caries can be treated non-operatively with ozone. This novel treatment regime using ozone is an effective alternative to conventional "drilling and filling". ¹HealOzone unit, CurOzone USA; ²CurOzone USA,