The use of Airbrasion in Conjunction with Ozone treatment

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Abstract

Most research in the use of ozone in the remineralisation of carious dentine has been confined to the treatment of occlusal caries. However many carious lesions occur in other sites, interproximal caries being one of concern.

Objectives

This investigation aimed to establish whether other lesions, especially interproximal and 'occult' occlusal caries could be treated by using airbrasion to gain access to the lesion followed by Ozone treatment.

Methods

Lesions requiring drilling and filling were selected. To date 37 patients involving 48 teeth have been treated. Access to the lesion was obtained using airbrasion delivered at 80 psi using 27 micron aluminium oxide as the cutting agent (Abradent DV1). Once access to the caries was established ozone was applied for 40 seconds using a HealOzone unit (CurOzone USA and KaVo Germany). In the treatment of interproximal caries, units techniques have been explored to ensure an effective seal. Glass ionomer restorative (Fuji 9 (GC) or Diamond Carve (Kemdent)) restored the cavity.

Results

All lesions were successfully exposed and a seal established for the delivery of ozone.

Conclusions

Airbrasion, because of its' minimal intervention capability enables carious lesions other than fissure caries to be treated without out the need for local aneaesthesia combined with Ozone treatment.