

Ozone Efficacy in the Treatment of Pit and Fissure Caries.
 ABU-NABA 'A L*, AL SHORMAN H and LYNCH E.
 (Oral Research Centre, School of Dentistry, Queen's University Belfast, NI)

Ozone continues to be investigated as a pharmaceutical treatment for pit and fissure carious lesions (PFCLs) in a longitudinal controlled clinical trial. **Aim:** To monitor lesions' remineralisation, arrest or progression after Ozone treatment using ECM and DIAGNOdent readings. **Methods:** 210 non-cavitated occlusal pit and fissure carious lesions in 47 patients were enrolled in this study. After clinical classification (Ekstrand, 1998) and cleaning using an air-abrasive system; Prophyflex 2® (KaVo, Germany), the DIAGNOdent® (D) (KaVo, Germany) and ECM (LODE BV, Netherlands) standard scale baseline readings were taken over each specific tooth surface. After randomisation of lesions, 105 lesions were treated with Ozone for 10

Time	D Base	T test ECM	Sign. p<	N o
1 m Tt	D<20	.496	.628	14
3 m Tt	D<20	3.045	.009	14
1 m Cl	D<20	2.280	.038	16
3 m Cl	D<20	2.725	.016	16
1 m Tt	20≤D<40	2.003	.053	36
3 m Tt	20≤D<40	4.208	.000	36
1 m Cl	20≤D<40	.349	.729	39
3 m Cl	20≤D<40	1.735	.091	39

seconds (HealOzone unit, CurOzone USA) and the other 105 were reserved as controls. After 1 & 3 months (m), the procedure was repeated. **Results:** The changes in the ECM values were tested by one sample t test of Log₁₀ m/base. (Tt = Treatment Group, Cl= Control Group)

Conclusion: Ozone significantly remineralised early Pit and Fissure Carious Lesions (D<40) at three months. Further studies are required to study the effect of Ozone on PFCLs with baseline DIAGNOdent readings over 40. (Supported by CurOzone, USA).

Time interval	DIA GN Ode nt valu e Base line	T test (Log ₁₀ 3m/base ECM value T=	Sign. P<	No. of teeth	% of remine ralised teeth
1 month treatment group	D<2 0	.49 6	.628	14	
3 months treatment group	D<2 0	3.04 5	.009	13	
1 month control group	D<2 0	2.28 0	.038	16	
3 months control group	D<2 0	2.72 5	.016	16	
1 month treatment group		2.00 3	.053	36	
3 months treatment group		4.20 8	.000	36	
1 month control group		.349	.729	39	
3 months control group		1.73 5	.091	39	

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