

Impact of a Dentifrice Containing 0.3% Triclosan on Periodontal and Peri-implant Parameters in Subjects Treated with Surgical Anti-infective Therapy for Peri-implantitis: 8 Years Follow-up

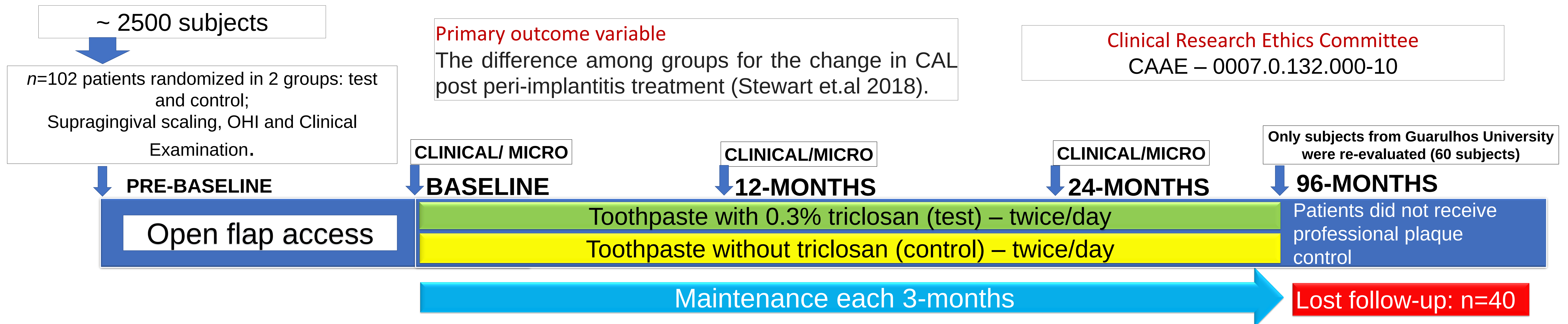


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INTRODUCCION

The maintenance therapy is important in the treatment of periodontal/ peri-implanter disease and a way of the therapy success. To evaluate the effects of a dentifrice containing 0.3% triclosan on periodontal and peri-implant parameters in subjects treated for peri-implantitis after 8 years follow-up.

MATERIALS AND METHOD



RESULTS

Table 1. Demographic characteristic

Variable	Time point	Treatment groups		Number of treated implants (%)	Pre-baseline	37 (56.06)	29 (43.94)
		Test 0.3% triclosan (n=10)	Control Without triclosan (n=10)				
Gender (Female/Male)	Pre-baseline	8/2	7/3	Number of non-disease implants (%)	Pre-baseline	17 (65.38)	9 (34.62)
	Baseline	8/2	7/3		Baseline	17 (65.38)	9 (34.62)
	12-months	8/2	7/2		12-months	17 (72.97)	10 (27.03)
	24-months	8/2	7/3		24-months	17 (72.97)	10 (27.03)
	96-months	8/1	7/2		96-months	33 (60.00)*	22 (40.00)*
Age (Mean years ± Standard deviation)	96-months	60.33 ± 5.48	62.44 ± 8.1	Number of failure implants (%)	Pre-baseline	0 (0)	0 (0)
Number of implants (%)	Pre-baseline	54 (58.70)	38 (41.30)		Baseline	0 (0)	0 (0)
	Baseline	54 (58.70)	38 (41.30)		12-months	0 (0)	0 (0)
	12-months	54 (58.06)	39 (41.94)		24-months	0 (0)	0 (0)
	24-months	54 (58.06)	39 (41.94)		96-months	6 (16.21)	5 (17.24)
	96-months	64 (58.10)*	46 (41.90)*	Number of teeth (%)	Pre-baseline	138 (54.76)	114 (45.24)
	Pre-baseline				Baseline	138 (54.76)	114 (45.24)
	Baseline				12-months	138 (55.20)	112 (44.80)
	12-months				24-months	136 (54.84)	112 (45.16)
	24-months				96-months	122 (54.70)	101 (45.30)
	96-months						

%: Percentual; n: number of volunteers; * Implants inserted between 24-months and 96-months.

RESULTS

Table 2. Clinical parameters mean ± SD of treated implants in pre-baseline, baseline, 12-months, 24-months, and 96-months post-treatment.

Variable	Time point	Treatment groups		P value					
		Test 0.3% triclosan (n=9)	Control Without triclosan (n=9)						
CAL (mm)	Pre-baseline					Pre-baseline	4.57 ± 0.39	4.59 ± 0.43	0.655
	Baseline					Baseline	4.54 ± 1.28	4.28 ± 0.82	0.940
	12-months					12-months	5.02 ± 1.24	4.35 ± 0.97	0.130
	24-months					24-months	5.00 ± 1.11	4.65 ± 1.07	0.545
	96-months					96-months	3.73 ± 0.52 ^A	5.07 ± 1.21 ^B	0.009
PI (%)	Pre-baseline	1.3 ± 0.04 ^a	14.2 ± 0.31 ^a	0.213	BoP (%)	Pre-baseline	96.2 ± 0.09	100.0 ± 0.00	0.168
	Baseline	18.9 ± 0.34 ^a	2.1 ± 0.07 ^a	0.111		Baseline	66.7 ± 0.43	60.6 ± 0.41	0.543
	12-months	1.7 ± 0.05 ^a	5.0 ± 0.16 ^a	0.942		12-months	50.0 ± 0.71	26.7 ± 0.44	0.665
	24-months	1.7 ± 0.05 ^a	1.0 ± 0.02 ^a	0.627		24-months	66.7 ± 0.58	0.0 ± 0.00	0.317
	96-months	69.4 ± 0.33 ^b	78.7 ± 0.33 ^b	0.422		96-months	76.4 ± 0.38	75.5 ± 0.27	0.617
GI (%)	Pre-baseline	63.3 ± 0.46 ^a	90.0 ± 0.32 ^a	0.074	SUP (%)	Pre-baseline	70.1 ± 0.33	49.4 ± 0.37	0.169
	Baseline	63.5 ± 0.43 ^a	33.3 ± 0.47 ^b	0.134		Baseline	0.0 ± 0.00	11.1 ± 0.19	0.564
	12-months	20.0 ± 0.42	7.0 ± 0.16 ^b	0.828		12-months	0.0 ± 0.00	0.0 ± 0.00	1.000
	24-months	10.0 ± 0.32 ^b	10.0 ± 0.32 ^b	1.000		24-months	0.0 ± 0.00	0.0 ± 0.00	1.000
	96-months	0.0 ± 0.00 ^b	0.0 ± 0.00 ^b	1.000		96-months	1.1 ± 0.03	5.6 ± 0.12	0.455
PD (mm)	Pre-baseline	4.50 ± 1.15 ^a	4.21 ± 0.80 ^{ac}	0.820	PD≥5mm (%)	Pre-baseline	44.1 ± 0.24 ^a	51.9 ± 0.26 ^{ac}	0.544
	Baseline	3.22 ± 0.97 ^b	3.34 ± 0.68 ^a	0.791		Baseline	13.9 ± 0.15	20.0 ± 0.19 ^{bc}	0.471
	12-months	2.84 ± 1.14 ^b	2.33 ± 0.54 ^b	0.496		12-months	8.9 ± 0.12 ^{Ab}	0.0 ± 0.00 ^{Bb}	0.030
	24-months	2.52 ± 0.62 ^b	2.36 ± 0.57 ^b	0.449		24-months	5.4 ± 0.11 ^b	3.2 ± 0.08 ^b	0.619
	96-months	3.67 ± 0.50	4.40 ± 1.15 ^c	0.200		96-months	20.6 ± 0.14	40.3 ± 0.36 ^c	0.267

Different capital letters indicate significant differences between treatment groups at each time point in the study (Mann-Whitney test and Tukey's multiple comparisons). Different lowercase letters indicate significant differences over time (Friedman and Dunn tests). SD: standard deviation; %: Percentual; mm: millimeter; PI: Plaque Index; GI: Gingival Index; PD: Probing Depth; CAL: Clinical Attachment Level; BoP: Bleeding of Probing; SUP: Suppuration. OBS: The sample number is related to the time point of 96 months.

RESULTS

Table 3. Clinical parameters mean ± SD of non-disease implants in pre-baseline, baseline, 12-months, 24-months, and 96-months post-treatment.

Variable	Time point	Treatment group		P Value					
		Test: 0.3% triclosan (n=7)	Control: Without triclosan (n=4)						
CAL (mm)	Pre-baseline					3.86 ± 0.30			
	Baseline					3.88 ± 0.66			
	12-months					4.09 ± 0.74			
	24-months					4.26 ± 0.87			
	96-months					3.73 ± 0.68			
BoP (%)	Pre-baseline					100.0 ± 0.00 ^A			
	Baseline					0.0 ± 0.00			
	12-months					0.0 ± 0.00			
	24-months					0.0 ± 0.00			
	96-months					61.7 ± 0.32			
SUP (%)	Pre-baseline					0.0 ± 0.00			
	Baseline					0.0 ± 0.00			
	12-months					0.0 ± 0.00			
	24-months					0.0 ± 0.00			
	96-months					11.4 ± 0.16			
PD≥5mm (%)	Pre-baseline					7.6 ± 0.90			
	Baseline					5.6 ± 0.11			
	12-months					3.0 ± 0.04			
	24-months					0.0 ± 0.00 ^a			
	96-months					24.1 ± 0.19 ^b			
PI (%)	Pre-baseline	0.0 ± 0.00 ^a	37.5 ± 0.48	0.131					
	Baseline	4.6 ± 0.08 ^a	12.5 ± 0.25	0.741					
	12-months	4.2 ± 0.08 ^a	10.4 ± 0.21	0.850					
	24-months	0.9 ± 0.02 ^a	20.8 ± 0.24	0.317					
	96-months	67.2 ± 0.39 ^b	49.6 ± 0.33	0.449					
GI (%)	Pre-baseline	31.5 ± 0.47	75.0 ± 0.50 ^a	0.268					
	Baseline	50.0 ± 0.58	0.0 ± 0.00 ^b	0.127					
	12-months	25.0 ± 0.50	2.1 ± 0.04 ^b	0.850					
	24-months	0.0 ± 0.00	0.0 ± 0.00 ^b	1.000					
	96-months	0.0 ± 0.00	0.0 ± 0.00 ^b	1.000					
PD (mm)	Pre-baseline	3.03 ± 0.52	2.99 ± 0.46 ^a	0.564					
	Baseline	2.26 ± 0.81 ^a	2.87 ± 0.59 ^a	0.149					
	12-months	2.08 ± 0.26 ^a	1.85 ± 0.44 ^b	0.468					
	24-months	1.97 ± 0.36 ^b	1.62 ± 0.20 ^b	0.108					
	96-months	3.68 ± 0.65 ^b	3.45 ± 0.39 ^a	0.449					

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RESULTS

Table 4. Clinical parameters mean ± SD of teeth in pre-baseline, baseline, 12-months, 24-months, and 96-months post-treatment.

Variable	Time point	Treatment groups		P value			Pre-baseline			
		Test 0.3% triclosan (n=8)	Control Without triclosan (n=6)							
					CAL (mm)		4.02 ± 0.87	3.52 ± 0.58	0.366	
						Baseline	3.86 ± 0.82	3.33 ± 0.34	0.245	
						12-months	3.84 ± 0.90	3.51 ± 0.41	0.796	
						24-months	3.97 ± 0.63	3.45 ± 0.53	0.302	
						96-months	3.29 ± 1.08	3.27 ± 0.44	0.439	
PI (%)	Pre-baseline	57.8 ± 0.37	68.0 ± 0.39	0.477	BoP (%)	Pre-baseline	75.5 ± 0.33	54.1 ± 0.51	0.579	
	Baseline	72.9 ± 0.23	66.6 ± 0.29	0.519		Baseline	51.8 ± 0.68	9.7 ± 0.08	0.564	
	12-months	68.7 ± 0.12	56.1 ± 0.21	0.175		12-months	0.0 ± 0.00	3.7 ± 0.05	0.480	
	24-months	59.3 ± 0.21	52.2 ± 0.16	0.606		24-months	50.0 ± 0.71	0.0 ± 0.00	0.480	
	96-months	66.0 ± 0.24	69.4 ± 0.26	0.949		96-months	49.3 ± 0.30	52.1 ± 0.29	0.699	
GI (%)	Pre-baseline	53.4 ± 0.47 ^a	84.2 ± 0.35 ^a	0.190	SUP (%)	Pre-baseline	16.7 ± 0.24	13.9 ± 0.24	1.000	
	Baseline	59.3 ± 0.50	12.7 ± 0.19 ^b	0.229		Baseline	50.0 ± 0.71	0.0 ± 0.00	0.317	
	12-months	26.6 ± 0.46	2.3 ± 0.06 ^b	0.373		12-months	0.0 ± 0.00	0.0 ± 0.00	1.000	
	24-months	12.5 ± 0.35	0.0 ± 0.00 ^b	0.387		24-months	0.0 ± 0.00	0.0 ± 0.00	1.000	
	96-months	0.0 ± 0.00 ^b	0.0 ± 0.00 ^b	1.000		96-months	0.3 ± 0.01	0.0 ± 0.00	0.387	
PD (mm)	Pre-baseline	1.93 ± 0.23 ^a	1.99 ± 0.36 ^a	0.796	PD≥5mm (%)	Pre-baseline	1.8 ± 0.03	1.4 ± 0.03	0.408	
	Baseline	1.69 ± 0.33 ^{ab}	1.71 ± 0.26 ^b	0.699		Baseline	0.7 ± 0.02	0.2 ± 0.00	0.719	
	12-months	1.45 ± 0.24 ^b	1.46 ± 0.25 ^{ab}	0.518		12-months	0.1 ± 0.00 ^a	0.0 ± 0.00 ^a	0.387	
	24-months	1.69 ± 0.41 ^{ab}	1.65 ± 0.35 ^b	1.000		24-months	0.6 ± 0.02	0.0 ± 0.00 ^b	0.387	
	96-months	2.66 ± 0.45 ^c	2.63 ± 0.31 ^c	0.897		96-months	5.5 ± 0.07 ^b	4.2 ± 0.04 ^b	0.795	

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CONCLUSION

The present study demonstrated stability in clinical attachment level (CAL) observed in test group. Therefore, the lack of support therapy and maintenance on interval of 2 -years to 8-years proved be a negative impact over implants and teeth.