

Impact of Oral Hygiene Discontinuation on Supragingival and Salivary Microbiomes

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Appendix

Appendix Table 1. Background and oral characteristics of the cohort

Gender (M/F)*	5/24 (17%/83%)
Age**	24.7 (22-29)
Number of teeth**	27.8 (24-28)
DMFT**	1.7 (0-7)
DT**	0.0 (0-0)
DMFS**	2.4 (0-12)
DS**	0.0 (0-0)

DMFT: Decayed-missed-filled-teeth

DT: Decayed-teeth

DMFS: Decayed-missed-filled-surfaces

DS: Decayed-surfaces

*: Gender expressed as number and percentage of the cohort

** : Parameters expressed as mean and range

Appendix Table 2. Species level abundance of supragingival microbiota. Mean relative abundance of bacterial species in pooled supragingival sample, which were influenced by oral hygiene discontinuation. Relative abundance in baseline samples (n=29) was compared to relative abundance in samples collected at day 4 (n=29), day 7 (n=29) and day 10 (n=29) after discontinuation of oral hygiene and 14 days (n=29) after reuptake of oral hygiene. *: relative abundance significantly different from baseline levels (adjusted p-value <0.01).

Species name	Baseline	Day 4	Day 7	Day 10	Day 24
<i>Abiotrophia_defectiva</i>	0.1245%	0.1901%	0.3412% *	0.4763% *	0.3219% *
<i>Actinobaculum_sp_HOT_183</i>	0.0516%	0.0823%	0.1543% *	0.1208%	0.1965% *
<i>Actinomyces_graevenitzii</i>	0.0187%	0.0021%	0.0001% *	0.0004% *	0.0004% *
<i>Actinomyces_johnsonii</i>	0.0060%	0.0242%*	0.0101%	0.0345% *	0.0680% *
<i>Actinomyces_lingnae</i>	0.0400%	0.0104%	0.0035% *	0.0050% *	0.0019% *
<i>Actinomyces_massiliensis</i>	0.0300%	0.1060%*	0.0449%	0.0586%	0.0744% *
<i>Actinomyces_naeslundii</i>	0.0223%	0.0028%*	0.0020% *	0.0160%	0.0010% *
<i>Actinomyces_sp_HOT_170</i>	0.0104%	0.0324%*	0.0066%	0.0396% *	0.0333% *
<i>Actinomyces_sp_HOT_171</i>	0.0143%	0.0342%	0.0138%	0.0518% *	0.0305%
<i>Actinomyces_sp_HOT_172</i>	0.0143%	0.0342%	0.0138%	0.0518% *	0.0305%
<i>Alloprevotella_sp_HOT_308</i>	0.0113%	0.0017%*	0.0008% *	0.0014% *	0.0009% *
<i>Alloprevotella_sp_HOT_914</i>	0.1887%	0.0989%	0.0505% *	0.0511% *	0.0623% *
<i>Atopobium_parvulum</i>	0.0109%	0.0012%*	0.0001% *	0.0002% *	0.0002% *
<i>Atopobium_rimae</i>	0.0052%	0.0108%*	0.0010% *	0.0045%	0.0036%
<i>Butyrivibrio_sp_HOT_455</i>	0.0082%	0.0063%	0.0002% *	0.0000% *	0.0001% *
<i>Campylobacter_gracilis</i>	0.2688%	0.4099%*	0.4535% *	0.4146% *	0.5479% *
<i>Capnocytophaga_leadbetteri</i>	0.2460%	0.7850%*	0.7656% *	0.5916% *	0.3886%

<i>Capnocytophaga_sputigena</i>	0.1839%	0.6556%*	0.8539% *	0.7152% *	0.3751%
<i>Cardiobacterium_hominis</i>	0.1944%	0.5966%*	0.3613%	0.6466% *	0.4523%
<i>Cardiobacterium_valvarum</i>	0.0753%	0.1914%	0.2271% *	0.3107% *	0.1801%
<i>Catonella_morbi</i>	0.0879%	0.0228%	0.0008% *	0.0010% *	0.0010% *
<i>Centipeda_periodontii</i>	0.0119%	0.0435%*	0.0535% *	0.0611% *	0.0537% *
<i>Corynebacterium_matruchotii</i>	2.4006%	3.9712%	4.6308% *	4.5963% *	5.9270% *
<i>Eikenella_corrodens</i>	0.0730%	0.2121%*	0.1800% *	0.2239% *	0.1767% *
<i>Filifactor_alocis</i>	0.0011%	0.0001%*	0.0021%	0.0000% *	0.0016%
<i>Fusobacterium_periodonticum</i>	1.9247%	0.9288%*	0.6225% *	0.5221% *	0.3708% *
<i>Fusobacterium_sp_HOT_205</i>	0.0050%	0.0089%	0.0105% *	0.0109% *	0.0072%
<i>Gemella_haemolysans</i>	0.7513%	0.3571%	0.1567% *	0.1797% *	0.1844% *
<i>Gemella_morbillosum</i>	0.1236%	0.8410%*	0.3678%	0.9225% *	0.4638%
<i>Gemella_sanguinis</i>	0.5813%	0.1239%	0.0102% *	0.0078% *	0.0138% *
<i>Granulicatella_adiacens</i>	1.0356%	0.3945%*	0.3466% *	0.2933% *	0.5662%
<i>Haemophilus_parainfluenzae</i>	3.3378%	2.0639%*	1.5277% *	1.0401% *	1.5851% *
<i>Haemophilus_pittmaniae</i>	0.2362%	0.0679%	0.0039% *	0.0118% *	0.0131% *
<i>Lachnospiraceae[G-2]_sp_HOT_088</i>	0.0048%	0.0162%	0.0327% *	0.0353% *	0.0281% *
<i>Lachnospiraceae[G-3]_sp_HOT_100</i>	0.0005%	0.0016%	0.0039% *	0.0044% *	0.0029% *
<i>Lachnospiraceae[G-8]_sp_HOT_500</i>	0.0029%	0.0031%	0.0014%	0.0001% *	0.0029%
<i>Leptotrichia_goodfellowii</i>	0.0231%	0.0897%*	0.0611%	0.0469%	0.0965% *
<i>Leptotrichia_hongkongensis</i>	1.4553%	2.7461%*	3.3706% *	2.8815% *	4.0651% *
<i>Leptotrichia_shahii</i>	0.2877%	0.7174%*	1.6828% *	0.7520% *	1.7520% *
<i>Leptotrichia_sp_HOT_212</i>	0.4368%	2.0767%*	2.2239% *	2.2951% *	1.0500%
<i>Leptotrichia_sp_HOT_215</i>	0.3664%	0.5921%*	0.5370% *	0.3926%	0.1794%

<i>Leptotrichia_sp_HOT_223</i>	0.1624%	0.1005%	0.1544%	0.2972%	0.2823%
				*	*
<i>Leptotrichia_sp_HOT_392</i>	0.1996%	0.7335%*	1.1502%	0.8745%	0.7566%
			*	*	*
<i>Megasphaera_micronuciformis</i>	0.0692%	0.0292%	0.0075%	0.0047%	0.0095%
			*	*	*
<i>Neisseria_flavescens</i>	2.3918%	0.9649%*	0.2091%	0.2003%	0.0707%
			*	*	*
<i>Oribacterium_asaccharolyticum</i>	0.0259%	0.0086%*	0.0018%	0.0014%	0.0017%
			*	*	*
<i>Oribacterium_parvum</i>	0.0724%	0.0111%	0.0002%	0.0007%	0.0001%
<i>Oribacterium_sinus</i>	0.1742%	0.0374%	0.0057%	0.0035%	0.0065%
			*	*	*
<i>Peptostreptococcaceae[XI][G-1][Eubacterium]_sulci</i>	0.0411%	0.0082%	0.0015%	0.0052%	0.0010%
			*	*	*
<i>Peptostreptococcaceae[XI][G-2]_sp_HOT_091</i>	0.0021%	0.0016%	0.0000%	0.0000%	0.0000%
			*	*	*
<i>Peptostreptococcus_stomatis</i>	0.0831%	0.0285%	0.0251%	0.0120%	0.0189%
				*	*
<i>Prevotella_melaninogenica</i>	5.0461%	1.4787%*	0.7389%	0.8553%	0.9571%
			*	*	*
<i>Prevotella_nanceiensis</i>	0.7485%	0.2441%	0.0605%	0.0200%	0.0223%
			*	*	*
<i>Prevotella_pallens</i>	0.2749%	0.2474%	0.0367%	0.2019%	0.0246%
			*		*
<i>Prevotella_scopos</i>	0.2344%	0.0251%	0.0001%	0.0005%	0.0002%
			*	*	*
<i>Prevotella_shahii</i>	0.0394%	0.0085%	0.0002%	0.0003%	0.0001%
			*	*	*
<i>Prevotella_sp_HOT_305</i>	0.0033%	0.0038%	0.0002%	0.0002%	0.0000%
			*	*	*
<i>Prevotella_sp_HOT_396</i>	0.0046%	0.0021%	0.0007%	0.0032%	0.0002%
			*		*
<i>Prevotella_sp_HOT_472</i>	0.0903%	0.3418%*	0.2770%	0.2895%	0.3087%
			*	*	*
<i>Prevotella_veroralis</i>	0.0431%	0.0595%	0.0068%	0.0030%	0.0074%
			*	*	*
<i>Propionibacterium_propionicum</i>	0.0000%	0.0007%	0.0003%	0.0013%	0.0244%
					*
<i>Propionibacterium_sp_HOT_194</i>	0.0001%	0.0003%	0.0003%	0.0004%	0.0082%
					*
<i>Rothia_dentocariosa</i>	2.2201%	0.5157%*	0.3046%	0.3484%	0.5322%
			*	*	*
<i>Rothia_mucilaginoso</i>	2.9438%	0.5958%*	0.0189%	0.0216%	0.0392%
			*	*	*
<i>Selenomonas_dianae</i>	0.0140%	0.0262%	0.0319%	0.0491%	0.0334%
				*	

<i>Selenomonas_flueggei</i>	0.0016%	0.0273%*	0.0380% *	0.0301% *	0.0163% *
<i>Selenomonas_sp_HOT_137</i>	0.0008%	0.0007%	0.0017% *	0.0008%	0.0018% *
<i>Stomatobaculum_sp_HOT_097</i>	0.0911%	0.0348%	0.0074%	0.0179% *	0.0066%
<i>Tannerella_sp_HOT_286</i>	0.2752%	0.7475%*	0.6919% *	0.8474% *	0.7057% *
<i>TM7[G-1]_sp_HOT_352</i>	0.1115%	0.0514%	0.0074% *	0.0133%	0.0041% *
<i>TM7[G-1]_sp_HOT_952</i>	0.0276%	0.2077%*	0.2556% *	0.2450% *	0.3219% *
<i>Treponema_denticola</i>	0.0013%	0.0003%*	0.0018%	0.0000% *	0.0107% *
<i>Veillonella_atypica</i>	0.2874%	0.0862%	0.0175% *	0.0074% *	0.0200% *
<i>Veillonella_denticariosi</i>	0.0578%	0.0060%*	0.0022% *	0.0001% *	0.0011% *
<i>Veillonella_rogosae</i>	0.4170%	0.0854%*	0.0103% *	0.0083% *	0.0120% *

Appendix Table 3. Species level abundance of salivary microbiota. Mean relative abundance of bacterial species in saliva samples, which were influenced by oral hygiene discontinuation. Relative abundance in baseline samples (n=29) was compared to relative abundance in samples collected at day 4 (n=29), day 7 (n=29) and day 10 (n=29) after discontinuation of oral hygiene and 14 days (n=29) after reuptake of oral hygiene. *: relative abundance significantly different from baseline levels (adjusted p-value <0.01).

Species name	Baseline	Day 4	Day 7	Day 10	Day 24
<i>Atopobium_parvulum</i>	0.06%	0.03%	0.01%*	0.05%	0.07%
<i>Bacteroidetes[G-5]_sp_HOT_507</i>	0.00%	0.00%	0.00%	0.39%*	0.11%*
<i>Capnocytophaga_gingivalis</i>	0.01%	0.06%*	0.07%*	0.06%*	0.01%
<i>Capnocytophaga_granulosa</i>	0.00%	0.03%	0.07%*	0.04%	0.01%
<i>Capnocytophaga_leadbetteri</i>	0.02%	0.09%*	0.15%*	0.08%	0.03%
<i>Capnocytophaga_sputigena</i>	0.02%	0.19%*	0.13%*	0.17%*	0.02%
<i>Cardiobacterium_hominis</i>	0.04%	0.14%*	0.30%*	0.13%*	0.03%
<i>Cardiobacterium_valvarum</i>	0.01%	0.03%	0.16%*	0.06%	0.01%
<i>Eikenella_corrodens</i>	0.02%	0.08%*	0.08%*	0.05%	0.02%
<i>Kingella_oralis</i>	0.03%	0.13%	0.64%*	0.12%	0.03%
<i>Leptotrichia_sp_HOT_212</i>	0.07%	0.17%	0.72%*	0.38%*	0.13%
<i>Rothia_mucilaginosa</i>	6.54%	4.52%	2.43%*	4.66%	5.14%