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APPENDICES

Table 1 Colorimetric (MTT) assay for cytotoxicity of extracted medium from materials (Elution)

PDL2 passage 6

	OD1	OD2	Average	Percent (to control)
control	1.194	1.183	1.1885	100.00
TF1	1.236	1.294	1.265	106.44
FF1	1.069	1.087	1.078	90.70
AF1	1.141	1.147	1.144	96.26
MTA1	1.07	1.193	1.1315	95.20
TF2	1.295	1.326	1.3105	110.27
FF2	1.181	1.069	1.125	94.66
AF2	1.214	1.281	1.2475	104.96
MTA2	1.301	1.197	1.249	105.09
TF3	1.306	1.316	1.311	110.31
FF3	1.144	1.23	1.187	99.87
AF3	1.153	1.18	1.1665	98.15
MTA3	1.201	1.302	1.2515	105.30
TF4	1.276	1.394	1.335	112.33
FF4	1.001	0.711	0.856	72.02
AF4	1.301	1.329	1.315	110.64
MTA4	1.276	1.369	1.3225	111.27

control = cell cultured on tissue culture plate without material

TF = Tetric® Flow

FF = Filtek™ Flow

AF = Aeliteflo™

MTA = Mineral trioxide aggregate

1 = one-day elution

2 = two-day elution

3 = three-day elution

4 = four-day elution

Table 2 Colorimetric (MTT) assay for cytotoxicity of extracted medium from material (Elution)

PDL4 passage 3

	OD1	OD2	Average	Percent (to control)
control	1.009	1.116	1.0625	100.00
TF1	0.909	0.839	0.874	82.26
FF1	0.741	0.96	0.8505	80.05
AF1	1.015	1.062	1.0385	97.74
MTA1	0.936	0.916	0.926	87.15
TF2	0.951	0.913	0.932	87.72
FF2	1.017	1.012	1.0145	95.48
AF2	1.177	1.302	1.2395	116.66
MTA2	1.368	1.175	1.2715	119.67
TF3	1.091	1.184	1.1375	107.06
FF3	1.318	1.256	1.287	121.13
AF3	1.307	1.301	1.304	122.73
MTA3	1.158	1.359	1.2585	118.45
TF4	1.102	1.145	1.1235	105.74
FF4	1.228	1.173	1.2005	112.99
AF4	1.302	1.213	1.2575	118.35
MTA4	1.444	1.402	1.423	133.93

control = cell cultured on tissue culture plate without material

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AF = Aeliteflo™

MTA = Mineral trioxide aggregate

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2 = two-day elution

3 = three-day elution

4 = four-day elution

Table 3 Colorimetric (MTT) assay for cytotoxicity of extracted medium from material (Elution)

PDL8 passage 3

	OD1	OD2	Average	Percent (to control)
control	1.199	1.23	1.2145	100.00
TF1	1.198	1.171	1.1845	97.53
FF1	0.981	1.149	1.065	87.69
AF1	1.04	1.008	1.024	84.31
MTA1	1.273	1.217	1.245	102.51
TF2	1.252	1.158	1.205	99.22
FF2	1.117	1.176	1.1465	94.40
AF2	1.081	1.144	1.1125	91.60
MTA2	1.264	1.204	1.234	101.61
TF3	1.057	1.312	1.1845	97.53
FF3	1.139	1.245	1.192	98.15
AF3	1.135	1.187	1.161	95.59
MTA3	1.279	1.323	1.301	107.12
TF4	1.258	1.148	1.203	99.05
FF4	1.245	1.274	1.2595	103.71
AF4	1.187	1.191	1.189	97.90
MTA4	1.323	1.313	1.318	108.52

Control = cell cultured on tissue culture plate without material

TF = Tetric® Flow

FF = Filtek™ Flow

AF = Aeliteflo™

MTA = Mineral trioxide aggregate

1 = one-day elution

2 = two-day elution

3 = three-day elution

4 = four-day elution

Table 4 Colorimetric (MTT) assay for cytotoxicity of extracted medium from material (Elution)

PDL11 passage 3

	OD1	OD2	Average	Percent (to control)
control	1.218	1.203	1.2105	100.00
TF1	1.02	1.258	1.139	94.09
FF1	1.016	1.007	1.0115	83.56
AF1	1.154	1.2	1.177	97.23
MTA1	1.066	1.074	1.07	88.39
TF2	1.291	1.294	1.2925	106.77
FF2	1.062	1.108	1.085	89.63
AF2	1.267	1.165	1.216	100.45
MTA2	1.2	1.282	1.241	102.52
TF3	1.239	1.23	1.2345	101.98
FF3	1.094	1.158	1.126	93.02
AF3	1.252	1.279	1.2655	104.54
MTA3	1.087	1.266	1.1765	97.19
TF4	1.289	1.181	1.235	102.02
FF4	0.934	1.1	1.017	84.01
AF4	1.313	1.294	1.3035	107.68
MTA4	1.24	1.091	1.1655	96.28

control = cell cultured on tissue culture plate without material

TF = Tetric® Flow

FF = Filtek™ Flow

AF = Aeliteflo™

MTA = Mineral trioxide aggregate

1 = one-day elution

2 = two-day elution

3 = three-day elution

4 = four-day elution

Table 5 Colorimetric (MTT) assay for cytotoxicity of material (direct contact)

PDL2 passage 4

	OD1	OD2	Average	Percent (to control)
control	0.902	0.823	0.8625	100.00
TF0	0.736	0.736	0.736	85.33
FF0	0.254	0.264	0.259	30.03
AF0	0.26	0.269	0.2645	30.67
MTA0	0.258	0.224	0.241	27.94
TF1	0.689	0.812	0.7505	87.01
FF1	0.353	0.565	0.459	53.22
AF1	0.221	0.241	0.231	26.78
MTA1	0.682	0.694	0.688	79.77
TF2	0.713	0.752	0.7325	84.93
FF2	0.553	0.657	0.605	70.14
AF2	0.265	0.248	0.2565	29.74
MTA2	0.666	0.675	0.6705	77.74
TF3	0.695	0.703	0.699	81.04
FF3	0.592	0.66	0.626	72.58
AF3	0.253	0.234	0.2435	28.23
MTA3	0.718	0.724	0.721	83.59
TF4	0.742	0.748	0.745	86.38
FF4	0.638	0.655	0.6465	74.96
AF4	0.342	0.528	0.435	50.43
MTA4	0.755	0.711	0.733	84.99

control = cell cultured on tissue culture plate without material

TF = Tetric® Flow

FF = Filtek™ Flow

AF = Aeliteflo™

MTA = Mineral trioxide aggregate

0 = freshly mixed material

1 = material immersed in cultured medium for 1 day

2 = material immersed in cultured medium for 2 days

3 = material immersed in cultured medium for 3 days

4 = material immersed in cultured medium for 4 days

Table 6 Colorimetric (MTT) assay for cytotoxicity of material (direct contact)

PDL4 passage 3

	OD1	OD2	Average	Percent (to control)
control	0.865	0.895	0.88	100.00
TF0	0.657	0.764	0.7105	80.74
FF0	0.465	0.4456	0.4553	51.74
AF0	0.319	0.274	0.2965	33.69
MTA0	0.192	0.361	0.2765	31.42
TF1	0.792	0.767	0.7795	88.58
FF1	0.646	0.6	0.623	70.80
AF1	0.292	0.303	0.2975	33.81
MTA1	0.812	0.611	0.7115	80.85
TF2	0.867	0.909	0.888	100.91
FF2	0.622	0.747	0.6845	77.78
AF2	0.383	0.466	0.4245	48.24
MTA2	0.645	0.579	0.612	69.55
TF3	0.808	0.88	0.844	95.91
FF3	0.652	0.676	0.664	75.45
AF3	0.464	0.566	0.515	58.52
MTA3	0.61	0.71	0.66	75.00
TF4	0.889	0.757	0.823	93.52
FF4	0.703	0.702	0.7025	79.83
AF4	0.698	0.631	0.6645	75.51
MTA4	0.759	0.598	0.6785	77.10

control = cell cultured on tissue culture plate without material

TF = Tetric® Flow

FF = Filtek™ Flow

AF = Aeliteflo™

MTA = Mineral trioxide aggregate

0 = freshly mixed material

1 = material immersed in cultured medium for 1 day

2 = material immersed in cultured medium for 2 days

3 = material immersed in cultured medium for 3 days

4 = material immersed in cultured medium for 4 days

Table 7 Colorimetric (MTT) assay for cytotoxicity of material (direct contact)

PDL7 passage 4

	OD1	OD2	Average	Percent (to control)
control	1.328	1.353	1.3405	100.00
TF0	0.9	1.063	0.9815	73.22
FF0	0.857	0.872	0.8645	64.49
AF0	0.359	0.37	0.3645	27.19
MTA0	0.156	0.148	0.152	11.34
TF1	0.988	0.758	0.873	65.12
FF1	1.054	0.872	0.963	71.84
AF1	0.414	0.421	0.4175	31.15
MTA1	0.906	0.75	0.828	61.77
TF2	0.979	0.907	0.943	70.35
FF2	1.156	1.274	1.215	90.64
AF2	0.331	0.358	0.3445	25.70
MTA2	1.071	0.937	1.004	74.90
TF3	1.005	1.264	1.1345	84.63
FF3	1.164	1.348	1.256	93.70
AF3	0.449	0.374	0.4115	30.70
MTA3	0.966	1.054	1.01	75.35
TF4	0.969	0.979	0.974	72.66
FF4	0.843	1.164	1.0035	74.86
AF4	0.534	0.905	0.7195	53.67
MTA4	1.095	0.987	1.041	77.66

control = cell cultured on tissue culture plate without material

TF = Tetric® Flow

FF = Filtek™ Flow

AF = Aeliteflo™

MTA = Mineral trioxide aggregate

0 = freshly mixed material

1 = material immersed in cultured medium for 1 day

2 = material immersed in cultured medium for 2 days

3 = material immersed in cultured medium for 3 days

4 = material immersed in cultured medium for 4 days

Table 8 Colorimetric (MTT) assay for cytotoxicity of material (direct contact)

PDL8 passage 3

	OD1	OD2	Average	Percent (to control)
control	1.142	1.117	1.1295	100.00
TF0	0.965	0.966	0.9655	85.48
FF0	0.898	0.73	0.814	72.07
AF0	0.57	0.567	0.5685	50.33
MTA0	0.955	0.957	0.956	84.64
TF1	1.062	0.969	1.0155	89.91
FF1	1.032	1.061	1.0465	92.65
AF1	0.867	0.798	0.8325	73.71
MTA1	0.548	0.766	0.657	58.17
TF2	1.052	0.865	0.9585	84.86
FF2	1.154	1.094	1.124	99.51
AF2	0.942	1.114	1.028	91.01
MTA2	0.803	0.79	0.7965	70.52
TF3	1.053	0.804	0.9285	82.20
FF3	1.143	1.214	1.1785	104.34
AF3	1.094	1.097	1.0955	96.99
MTA3	0.733	0.847	0.79	69.94
TF4	1.029	1.248	1.1385	100.80
FF4	0.928	0.8	0.864	76.49
AF4	1.05	1.06	1.055	93.40
MTA4	0.99	0.858	0.924	81.81

control = cell cultured on tissue culture plate without material

TF = Tetric® Flow

FF = Filtek™ Flow

AF = Aeliteflo™

MTA = Mineral trioxide aggregate

0 = freshly mixed material

1 = material immersed in cultured medium for 1 day

2 = material immersed in cultured medium for 2 days

3 = material immersed in cultured medium for 3 days

4 = material immersed in cultured medium for 4 days

Table 9 Colorimetric (MTT) assay for cytotoxicity of material (direct contact)

PDL11passage 4

	OD1	OD2	Average	Percent (to control)
control	1.138	1.093	1.1155	100.00
TF0	0.891	1.056	0.9735	87.27
FF0	0.719	0.654	0.6865	61.54
AF0	0.381	0.381	0.381	34.16
MTA0	0.478	0.072	0.275	24.65
TF1	1.003	0.933	0.968	86.78
FF1	0.824	1.044	0.934	83.73
AF1	0.81	0.708	0.759	68.04
MTA1	0.951	0.912	0.9315	83.51
TF2	1.014	0.76	0.887	79.52
FF2	1.32	1.063	1.1915	106.81
AF2	0.907	0.51	0.7085	63.51
MTA2	0.863	0.712	0.7875	70.60
TF3	1.152	1.238	1.195	107.13
FF3	1.065	0.789	0.927	83.10
AF3	0.88	0.702	0.791	70.91
MTA3	0.88	0.949	0.9145	81.98
TF4	1.269	1.02	1.1445	102.60
FF4	1.183	1.336	1.2595	112.91
AF4	1.038	1.025	1.0315	92.47
MTA4	0.779	1.149	0.964	86.42

control = cell cultured on tissue culture plate without material

TF = Tetric® Flow

FF = Filtek™ Flow

AF = Aeliteflo™

MTA = Mineral trioxide aggregate

0 = freshly mixed material

1 = material immersed in cultured medium for 1 day

2 = material immersed in cultured medium for 2 days

3 = material immersed in cultured medium for 3 days

4 = material immersed in cultured medium for 4 days

Table 10 Statistical analysis using SPSS

of

Colorimetric (MTT) assay for cytotoxicity of extracted medium from material (Elution)

(ANOVA)

Descriptives

Percent (Elution)

Time		N	Mean	Std. Deviation	95% CI for Mean		Min	Max
					Lower Bound	Upper Bound		
1 day	Tetric flow	4	95.0800	10.00641	79.1576	111.0	82.26	106.4
	Filtek flow	4	85.5000	4.66555	78.0761	92.92	80.05	90.70
	Aelite flow	4	93.8850	6.41278	83.6808	104.1	84.31	97.74
	MTA	4	93.3125	7.07964	82.0472	104.6	87.15	102.5
	Total	16	91.9444	7.60448	87.8922	96.00	80.05	106.4
2 day	Tetric flow	4	100.9950	9.97919	85.1159	116.9	87.72	110.3
	Filtek flow	4	93.5425	2.64863	89.3279	97.76	89.63	95.48
	Aelite flow	4	103.4175	10.42757	86.8249	120.0	91.60	116.7
	MTA	4	107.2225	8.42816	93.8114	120.6	101.6	119.7
	Total	16	101.2944	9.15943	96.4137	106.2	87.72	119.7
3 day	Tetric flow	4	104.2200	5.62516	95.2691	113.2	97.53	110.3
	Filtek flow	4	103.0425	12.40443	83.3043	122.8	93.02	121.1
	Aelite flow	4	105.2525	12.24446	85.7688	124.7	95.59	122.7
	MTA	4	107.0150	8.76056	93.0750	121.0	97.19	118.5
	Total	16	104.8825	9.20360	99.9782	109.8	93.02	122.7
4 day	Tetric flow	4	104.7850	5.72639	95.6730	113.9	99.05	112.3
	Filtek flow	4	93.1825	18.57553	63.6247	122.7	72.02	113.0
	Aelite flow	4	108.6425	8.45682	95.1858	122.1	97.90	118.4
	MTA	4	112.5000	15.70230	87.5141	137.5	96.28	133.9
	Total	16	104.7775	13.96148	97.3380	112.2	72.02	133.9

ANOVA

OD(Elution)

Time		Sum of Squares	df	Mean Square	F	Sig.
1 day	Between Groups	.031	3	.010	.664	.590
	Within Groups	.189	12	.016		
	Total	.221	15			
2 day	Between Groups	.052	3	.017	1.809	.199
	Within Groups	.114	12	.010		
	Total	.166	15			
3 day	Between Groups	.005	3	.002	.368	.777
	Within Groups	.053	12	.004		
	Total	.058	15			
4 day	Between Groups	.114	3	.038	2.720	.091
	Within Groups	.167	12	.014		
	Total	.281	15			

Multiple Comparisons

Dependent Variable: Percent (Elution)
Scheffe

Time	(I) Material	(J) Material	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
1 day	Tetric flow	Filtek flow	9.5800	5.16165	.369	-7.1224	26.2824
		Aelite flow	1.1950	5.16165	.997	-15.5074	17.8974
		MTA	1.7675	5.16165	.989	-14.9349	18.4699
	Filtek flow	Tetric flow	-9.5800	5.16165	.369	-26.2824	7.1224
		Aelite flow	-8.3850	5.16165	.479	-25.0874	8.3174
		MTA	-7.8125	5.16165	.536	-24.5149	8.8899
	Aelite flow	Tetric flow	-1.1950	5.16165	.997	-17.8974	15.5074
		Filtek flow	8.3850	5.16165	.479	-8.3174	25.0874
		MTA	.5725	5.16165	1.000	-16.1299	17.2749
	MTA	Tetric flow	-1.7675	5.16165	.989	-18.4699	14.9349
		Filtek flow	7.8125	5.16165	.536	-8.8899	24.5149
		Aelite flow	-.5725	5.16165	1.000	-17.2749	16.1299
2 day	Tetric flow	Filtek flow	7.4525	5.98297	.678	-11.9076	26.8126
		Aelite flow	-2.4225	5.98297	.982	-21.7826	16.9376
		MTA	-6.2275	5.98297	.782	-25.5876	13.1326
	Filtek flow	Tetric flow	-7.4525	5.98297	.678	-26.8126	11.9076
		Aelite flow	-9.8750	5.98297	.466	-29.2351	9.4851
		MTA	-13.6800	5.98297	.211	-33.0401	5.6801
	Aelite flow	Tetric flow	2.4225	5.98297	.982	-16.9376	21.7826
		Filtek flow	9.8750	5.98297	.466	-9.4851	29.2351
		MTA	-3.8050	5.98297	.937	-23.1651	15.5551
	MTA	Tetric flow	6.2275	5.98297	.782	-13.1326	25.5876
		Filtek flow	13.6800	5.98297	.211	-5.6801	33.0401
		Aelite flow	3.8050	5.98297	.937	-15.5551	23.1651
3 day	Tetric flow	Filtek flow	1.1775	7.17797	.999	-22.0495	24.4045
		Aelite flow	-1.0325	7.17797	.999	-24.2595	22.1945
		MTA	-2.7950	7.17797	.984	-26.0220	20.4320
	Filtek flow	Tetric flow	-1.1775	7.17797	.999	-24.4045	22.0495
		Aelite flow	-2.2100	7.17797	.992	-25.4370	21.0170
		MTA	-3.9725	7.17797	.957	-27.1995	19.2545
	Aelite flow	Tetric flow	1.0325	7.17797	.999	-22.1945	24.2595
		Filtek flow	2.2100	7.17797	.992	-21.0170	25.4370
		MTA	-1.7625	7.17797	.996	-24.9895	21.4645
	MTA	Tetric flow	2.7950	7.17797	.984	-20.4320	26.0220
		Filtek flow	3.9725	7.17797	.957	-19.2545	27.1995
		Aelite flow	1.7625	7.17797	.996	-21.4645	24.9895
4 day	Tetric flow	Filtek flow	11.6025	9.32686	.679	-18.5780	41.7830
		Aelite flow	-3.8575	9.32686	.981	-34.0380	26.3230
		MTA	-7.7150	9.32686	.875	-37.8955	22.4655
	Filtek flow	Tetric flow	-11.6025	9.32686	.679	-41.7830	18.5780
		Aelite flow	-15.4600	9.32686	.462	-45.6405	14.7205
		MTA	-19.3175	9.32686	.283	-49.4980	10.8630
	Aelite flow	Tetric flow	3.8575	9.32686	.981	-26.3230	34.0380
		Filtek flow	15.4600	9.32686	.462	-14.7205	45.6405
		MTA	-3.8575	9.32686	.981	-34.0380	26.3230
	MTA	Tetric flow	7.7150	9.32686	.875	-22.4655	37.8955
		Filtek flow	19.3175	9.32686	.283	-10.8630	49.4980
		Aelite flow	3.8575	9.32686	.981	-26.3230	34.0380

Table 11 Statistical analysis using SPSS

of

Colorimetric (MTT) assay for cytotoxicity of extracted medium from material compared with control (Elution)

(T-test)

One-Sample Test

Time	Material		Test Value = 100					
			t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
							Lower	Upper
1 day	Tetric flow	Percent (Elution)	-.983	3	.398	-4.9200	-20.8424	11.0024
	Filtek flow	Percent (Elution)	-6.216	3	.008	-14.5000	-21.9239	-7.0761
	Aelite flow	Percent (Elution)	-1.907	3	.153	-6.1150	-16.3192	4.0892
	MTA	Percent (Elution)	-1.889	3	.155	-6.6875	-17.9528	4.5778
2 day	Tetric flow	Percent (Elution)	.199	3	.855	.9950	-14.8841	16.8741
	Filtek flow	Percent (Elution)	-4.876	3	.016	-6.4575	-10.6721	-2.2429
	Aelite flow	Percent (Elution)	.655	3	.559	3.4175	-13.1751	20.0101
	MTA	Percent (Elution)	1.714	3	.185	7.2225	-6.1886	20.6336
3 day	Tetric flow	Percent (Elution)	1.500	3	.230	4.2200	-4.7309	13.1709
	Filtek flow	Percent (Elution)	.491	3	.657	3.0425	-16.6957	22.7807
	Aelite flow	Percent (Elution)	.858	3	.454	5.2525	-14.2312	24.7362
	MTA	Percent (Elution)	1.601	3	.208	7.0150	-6.9250	20.9550
4 day	Tetric flow	Percent (Elution)	1.671	3	.193	4.7850	-4.3270	13.8970
	Filtek flow	Percent (Elution)	-.734	3	.516	-6.8175	-36.3753	22.7403
	Aelite flow	Percent (Elution)	2.044	3	.134	8.6425	-4.8142	22.0992
	MTA	Percent (Elution)	1.592	3	.210	12.5000	-12.4859	37.4859

Table 12 Statistical analysis using SPSS

of

Colorimetric (MTT) assay for cytotoxicity of material (direct contact)

(ANOVA)

Descriptives

Percent (direct contact)

Time		N	Mean	Std. Deviation	95% CI for Mean		Min	Max
					Lower Bound	Upper Bound		
no wash	Tetric flow	5	82.4080	5.67485	75.36	89.45	73.22	87.27
	Filtek flow	5	55.9740	16.22962	35.82	76.13	30.03	72.07
	Aelite flow	5	35.2080	8.90168	24.16	46.26	27.19	50.33
	MTA	5	35.9980	28.23441	.9403	71.06	11.34	84.64
	Total	20	52.3970	25.21207	40.60	64.20	11.34	87.27
1 day	Tetric flow	5	83.4800	10.34161	70.64	96.32	65.12	89.91
	Filtek flow	5	74.4480	14.90139	55.95	92.95	53.22	92.65
	Aelite flow	5	46.6980	22.30301	19.01	74.39	26.78	73.71
	MTA	5	72.8140	11.87207	58.07	87.56	58.17	83.51
	Total	20	69.3600	20.03060	59.99	78.73	26.78	92.65
2 day	Tetric flow	5	84.1140	11.11171	70.32	97.91	70.35	100.9
	Filtek flow	5	88.9760	15.09910	70.23	107.7	70.14	106.8
	Aelite flow	5	51.6400	26.71585	18.47	84.81	25.70	91.01
	MTA	5	72.6620	3.51138	68.30	77.02	69.55	77.74
	Total	20	74.3480	21.08794	64.48	84.22	25.70	106.8
3 day	Tetric flow	5	90.1820	11.15973	76.33	104.0	81.04	107.1
	Filtek flow	5	85.8340	13.18443	69.46	102.2	72.58	104.3
	Aelite flow	5	57.0700	28.78531	21.33	92.81	28.23	96.99
	MTA	5	77.1720	5.58226	70.24	84.10	69.94	83.59
	Total	20	77.5645	20.35387	68.04	87.09	28.23	107.1
4 day	Tetric flow	5	91.1920	12.19084	76.06	106.3	72.66	102.6
	Filtek flow	5	83.8100	16.39099	63.46	104.2	74.86	112.9
	Aelite flow	5	73.0960	20.52163	47.62	98.58	50.43	93.40
	MTA	5	81.5960	4.19947	76.38	86.81	77.10	86.42
	Total	20	82.4235	14.96785	75.42	89.43	50.43	112.9

ANOVA

Percent (direct contact)

Time		Sum of Squares	df	Mean Square	F	Sig.
no wash	Between Groups	7389.220	3	2463.073	8.406	.001
	Within Groups	4688.105	16	293.007		
	Total	12077.32	19			
1 day	Between Groups	3753.793	3	1251.264	5.174	.011
	Within Groups	3869.482	16	241.843		
	Total	7623.275	19			
2 day	Between Groups	4139.245	3	1379.748	5.122	.011
	Within Groups	4310.078	16	269.380		
	Total	8449.323	19			
3 day	Between Groups	3238.823	3	1079.608	3.729	.033
	Within Groups	4632.498	16	289.531		
	Total	7871.321	19			
4 day	Between Groups	832.480	3	277.493	1.297	.310
	Within Groups	3424.215	16	214.013		
	Total	4256.695	19			

Multiple Comparisons

Dependent Variable: Percent (direct contact)
Scheffe

Time	(I) Material	(J) Material	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
no wash	Tetric flow	Filtek flow	26.4340	10.82602	.157	-7.3123	60.1803
		Aelite flow	47.2000*	10.82602	.005	13.4537	80.9463
		MTA	46.4100*	10.82602	.006	12.6637	80.1563
	Filtek flow	Tetric flow	-26.4340	10.82602	.157	-60.1803	7.3123
		Aelite flow	20.7660	10.82602	.333	-12.9803	54.5123
		MTA	19.9760	10.82602	.365	-13.7703	53.7223
	Aelite flow	Tetric flow	-47.2000*	10.82602	.005	-80.9463	-13.4537
		Filtek flow	-20.7660	10.82602	.333	-54.5123	12.9803
		MTA	-.7900	10.82602	1.000	-34.5363	32.9563
	MTA	Tetric flow	-46.4100*	10.82602	.006	-80.1563	-12.6637
		Filtek flow	-19.9760	10.82602	.365	-53.7223	13.7703
		Aelite flow	.7900	10.82602	1.000	-32.9563	34.5363
1 day	Tetric flow	Filtek flow	9.0320	9.83550	.838	-21.6267	39.6907
		Aelite flow	36.7820*	9.83550	.016	6.1233	67.4407
		MTA	10.6660	9.83550	.760	-19.9927	41.3247
	Filtek flow	Tetric flow	-9.0320	9.83550	.838	-39.6907	21.6267
		Aelite flow	27.7500	9.83550	.084	-2.9087	58.4087
		MTA	1.6340	9.83550	.999	-29.0247	32.2927
	Aelite flow	Tetric flow	-36.7820*	9.83550	.016	-67.4407	-6.1233
		Filtek flow	-27.7500	9.83550	.084	-58.4087	2.9087
		MTA	-26.1160	9.83550	.111	-56.7747	4.5427
	MTA	Tetric flow	-10.6660	9.83550	.760	-41.3247	19.9927
		Filtek flow	-1.6340	9.83550	.999	-32.2927	29.0247
		Aelite flow	26.1160	9.83550	.111	-4.5427	56.7747
2 day	Tetric flow	Filtek flow	-4.8620	10.38036	.974	-37.2191	27.4951
		Aelite flow	32.4740*	10.38036	.049	.1169	64.8311
		MTA	11.4520	10.38036	.751	-20.9051	43.8091
	Filtek flow	Tetric flow	4.8620	10.38036	.974	-27.4951	37.2191
		Aelite flow	37.3360*	10.38036	.021	4.9789	69.6931
		MTA	16.3140	10.38036	.500	-16.0431	48.6711
	Aelite flow	Tetric flow	-32.4740*	10.38036	.049	-64.8311	-.1169
		Filtek flow	-37.3360*	10.38036	.021	-69.6931	-4.9789
		MTA	-21.0220	10.38036	.289	-53.3791	11.3351
	MTA	Tetric flow	-11.4520	10.38036	.751	-43.8091	20.9051
		Filtek flow	-16.3140	10.38036	.500	-48.6711	16.0431
		Aelite flow	21.0220	10.38036	.289	-11.3351	53.3791
3 day	Tetric flow	Filtek flow	4.3480	10.76162	.983	-29.1976	37.8936
		Aelite flow	33.1120	10.76162	.054	-.4336	66.6576
		MTA	13.0100	10.76162	.696	-20.5356	46.5556
	Filtek flow	Tetric flow	-4.3480	10.76162	.983	-37.8936	29.1976
		Aelite flow	28.7640	10.76162	.108	-4.7816	62.3096
		MTA	8.6620	10.76162	.884	-24.8836	42.2076
	Aelite flow	Tetric flow	-33.1120	10.76162	.054	-66.6576	.4336
		Filtek flow	-28.7640	10.76162	.108	-62.3096	4.7816
		MTA	-20.1020	10.76162	.355	-53.6476	13.4436
	MTA	Tetric flow	-13.0100	10.76162	.696	-46.5556	20.5356
		Filtek flow	-8.6620	10.76162	.884	-42.2076	24.8836
		Aelite flow	20.1020	10.76162	.355	-13.4436	53.6476
4 day	Tetric flow	Filtek flow	7.3820	9.25232	.886	-21.4588	36.2228
		Aelite flow	18.0960	9.25232	.317	-10.7448	46.9368
		MTA	9.5960	9.25232	.784	-19.2448	38.4368
	Filtek flow	Tetric flow	-7.3820	9.25232	.886	-36.2228	21.4588
		Aelite flow	10.7140	9.25232	.723	-18.1268	39.5548
		MTA	2.2140	9.25232	.996	-26.6268	31.0548
	Aelite flow	Tetric flow	-18.0960	9.25232	.317	-46.9368	10.7448
		Filtek flow	-10.7140	9.25232	.723	-39.5548	18.1268
		MTA	-8.5000	9.25232	.838	-37.3408	20.3408
	MTA	Tetric flow	-9.5960	9.25232	.784	-38.4368	19.2448
		Filtek flow	-2.2140	9.25232	.996	-31.0548	26.6268
		Aelite flow	8.5000	9.25232	.838	-20.3408	37.3408

*. The mean difference is significant at the .05 level.

Table 13 Statistical analysis using SPSS

of

Colorimetric (MTT) assay for cytotoxicity of extracted medium from material

compared with control (Direct contact)

(T-test)

One-Sample Test

			Test Value = 100					
							95% Confidence Interval of the Difference	
Time	Material		t	df	Sig. (2-tailed)	Mean Diff	Lower	Upper
no wash	Tetric flow	Percent (direct contact)	-6.932	4	.002	-17.5920	-24.6383	-10.5457
	Filtek flow	Percent (direct contact)	-6.066	4	.004	-44.0260	-64.1777	-23.8743
	Aelite flow	Percent (direct contact)	-16.276	4	.000	-64.7920	-75.8449	-53.7391
	MTA	Percent (direct contact)	-5.069	4	.007	-64.0020	-99.0597	-28.9443
1 day	Tetric flow	Percent (direct contact)	-3.572	4	.023	-16.5200	-29.3608	-3.6792
	Filtek flow	Percent (direct contact)	-3.834	4	.019	-25.5520	-44.0545	-7.0495
	Aelite flow	Percent (direct contact)	-5.344	4	.006	-53.3020	-80.9948	-25.6092
	MTA	Percent (direct contact)	-5.120	4	.007	-27.1860	-41.9271	-12.4449
2 day	Tetric flow	Percent (direct contact)	-3.197	4	.033	-15.8860	-29.6830	-2.0890
	Filtek flow	Percent (direct contact)	-1.633	4	.178	-11.0240	-29.7720	7.7240
	Aelite flow	Percent (direct contact)	-4.048	4	.016	-48.3600	-81.5321	-15.1879
	MTA	Percent (direct contact)	-17.409	4	.000	-27.3380	-31.6980	-22.9780
3 day	Tetric flow	Percent (direct contact)	-1.967	4	.121	-9.8180	-23.6746	4.0386
	Filtek flow	Percent (direct contact)	-2.403	4	.074	-14.1660	-30.5366	2.2046
	Aelite flow	Percent (direct contact)	-3.335	4	.029	-42.9300	-78.6717	-7.1883
	MTA	Percent (direct contact)	-9.144	4	.001	-22.8280	-29.7593	-15.8967
4 day	Tetric flow	Percent (direct contact)	-1.616	4	.181	-8.8080	-23.9449	6.3289
	Filtek flow	Percent (direct contact)	-2.209	4	.092	-16.1900	-36.5421	4.1621
	Aelite flow	Percent (direct contact)	-2.932	4	.043	-26.9040	-52.3850	-1.4230
	MTA	Percent (direct contact)	-9.799	4	.001	-18.4040	-23.6183	-13.1897

BIOGRAPHY

Miss Vorapun Trichaiyapon was born on 31 th of August 1978 in Bangkok. She graduated with D.D.S. (Doctor of Dental Surgery) from the Faculty of Dentistry, Chulalongkorn University in 2003, and became a staff member at Faculty of Dentistry, Thammasat University. She studied in a Master degree program in Endodontology at Graduate School, Chulalongkorn University in 2006.