

Table 1 – Data extraction of included studies

Author/Year/ Country	Sample size	Experimentals groups (type of intervention)	Irrigation time	Magnification/ Evaluation criteria	Results
<i>Sadr Lahijani et al.</i> ⁽²³⁾ 2006, Iran	n=40	Group 1: 10ml HCE Group 2: 10ml Tea Tree Oil Group 3: 10ml NaOCl 2.5% Group 4: Control +: NaOCl 2.5% + 10ml EDTA 17% Group 5: Negative Control: distilled water	2 minutes	2000x 5000x <i>Hulsmann et al.</i> 2002	Data not shown
<i>Murray et al.</i> ⁽²⁴⁾ 2008, USA	n=60	Group 1: MCE 6% + EDTA 17% + MCE 6% Group 2: MCE 6%/CHX 2% (1:1) + EDTA 17% + MCE 6%/CHX 2% Group 3: MCE 6% + saline solution + MCE 6% Group 4: Positive Control = NaOCl 6% + EDTA 17% + NaOCl 6% Group 5: Positive Control = 2%CHX Group 6: Negative Control = saline solution 0.9%	Uninformed	2000x <i>Madison & Hokett</i> , 1997	Complete removal of smear layer and all visible dentinal tubules: Coronal third Group 1: 60% Group 2: 0% Group 3: 20% Group 4: 80% Group 5: 0% Middle third Group 1: 70% Group 2: 0% Group 3: 30% Group 4: 80% Group 5: 30% Apical third Group 1: 40% Group 2: 1% Group 3: 20% Group 4: 60% Group 5: 10%
<i>Balto et al.</i> ⁽²⁵⁾ 2012, Saudi Arabia	n=60	Group 1: 1mg/ml ASPE (5ml) + NaOCl 1% Group 2: 5mg/ml ASPE (5ml) + NaOCl 1% Group 3: Positive Control = EDTA 17% (5ml) NaOCl 1% Group 4: Negative Control = saline solution (5ml) + NaOCl 1%	5 minutes	1000x 1500x <i>Torabinejad et al.</i> 2003	Mean of SL scores covering surfaces and tubules: Coronal third Group 1: 56.5 Group 2: 46.5 Group 3: 46.5 Group 4: 110.5 Middle third Group 1: 65.3 Group 2: 49.2 Group 3: 30.5 Group 4: 103.5 Apical third Group 1: 60.92 Group 2: 61.83 Group 3: 24.5 Group 4: 93.0
<i>Bolhari et al.</i> ⁽²⁶⁾ 2012, Iran	n=39	Group 1: 1ml EDTA 17% Group 2: 1ml CCAE Group 3: 1ml ACAE Group 4: Negative Control: 1ml distilled water	20 minutes 20 minutes 20 minutes 1 minutes	2000x <i>Schafer e Lohmann</i> 2002	Data not shown
<i>Chhabra et al.</i> ⁽²⁷⁾ 2015, India	n=50	Group 1: Negative Control = distilled water (3ml) Group 2: Positive Control = EDTA 17% (3ml) Group 3: 3ml 1:1 0.1g/ml CA 0.1g/ml SM aqueous solution (CA/SM) Group 4: 3ml 1:1 CA/SM Solution + sonic agitation Group 5: 3ml 2:1 0.12g/ml CA 0.06g/ml SM aqueous solution Group 6: 3ml CA/SM (2:1) + sonic agitation	5 minutes	1000x <i>Hülsmann et al.</i> 2003	Mean score of SL remaining: Coronal third Group 1 = 3.6 Group 2 = 1.4 Group 3 = 2.2 Group 4 = 2.3 Group 5 = 1.6 Group 6 = 1.6 Middle third Group 1 = 4.6 Group 2 = 2.2 Group 3 = 3.7 Group 4 = 3.8 Group 5 = 3.5 Group 6 = 2.6 Apical third Group 1 = 4.0 Group 2 = 1.8 Group 3 = 2.9 Group 4 = 2.9 Group 5 = 2.7 Group 6 = 2.1
<i>Davoudi et al.</i> ⁽²⁸⁾ 2015, Iran	n=40	Group 1: 10ml FVE Group 2: FVE + EDTA Group 3: Positive Control: NaOCl 5.25% + EDTA Group 4: Negative Control: saline solution	10 seconds	1500x <i>Hülsmann et al.</i> 1997	Mean score of SL remaining: Coronal third Group 1 = 3.2 Group 2 = 2.4 Group 3 = 1.8 Group 4 = 3.9 Middle third Group 1 = 3.8 Apical third Group 1 = 3.8 Group 2 = 3.4 Group 3 = 2.6 Group 4 = 4.0

					<i>Group 2 = 2.9</i> <i>Group 3 = 2.6</i> <i>Group 4 = 4.0</i>	
					% of apical third cleaning	
<i>Margono et al.</i> ⁽¹³⁾ 2017, Indonesia	n=50	<i>Group 1: GSE 3.25%</i> <i>Group 2: GSE 6,5%</i> <i>Group 3: GSE 13%</i> <i>Group 4: EDTA 17%</i> <i>Group 5: Negative Control: distilled water</i>	Uninformed	1000x <i>Margono et al. 2017</i>	<i>Group 1:</i> Score 0 = 30% Score 1 = 40% Score 2 = 30% <i>Group 2:</i> Score 0 = 10% Score 1 = 70% Score 2 = 20%	<i>Group 3:</i> Score 0 = 40% Score 1 = 20% Score 2 = 40% <i>Group 4:</i> Score 0 = 30% Score 1 = 70% Score 2 = 0% <i>Group 5:</i> Score 0 = 0% Score 1 = 20% Score 2 = 80%
<i>Ok et al.</i> ⁽⁶⁾ 2015, Turkey	n=60	<i>Group 1: 3ml NaOCl 5.25% + 3ml EDTA 17%</i> <i>Group 2: 3ml OE 1%</i> <i>Group 3: 3ml OE 2%</i> <i>Group 4: 3ml OE 5%</i> <i>Group 5: 3ml OE 1% + 3ml EDTA 17%</i> <i>Group 6: 3ml OE 2% + 3ml EDTA 17%</i> <i>Group 7: 3ml OE 5% + 3ml EDTA 17%</i> <i>Group 8: 3ml saline solution + 3ml EDTA 17%</i>	1 minute	1000x <i>Ok et al. 2018</i>	Data not shown	