Evaluation of Recombinant Human FGF-2 and PDGF-BB in Periodontal Regeneration: A Systematic Review and Meta-Analysis

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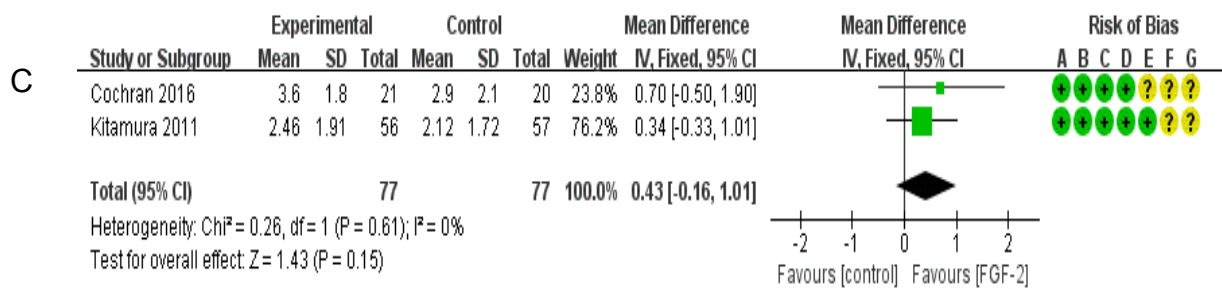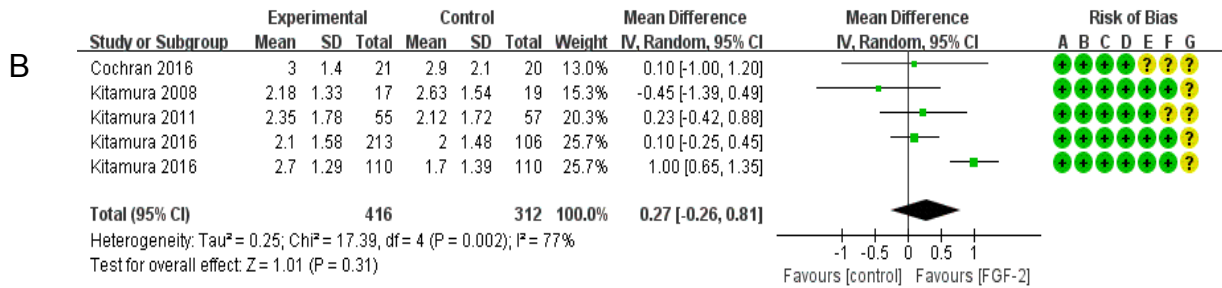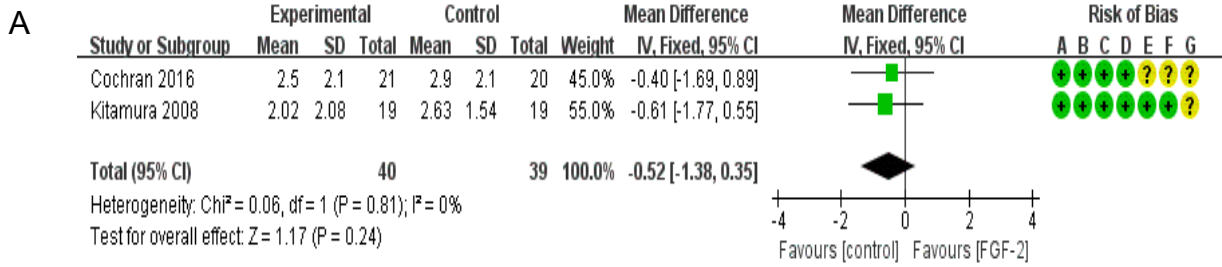Telephone: 862885503497
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Supplemental Data

S1

A

Study or Subgroup	Experimental Mean	SD	Total	Control Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI	Risk of Bias A B C D E F G
Cochran 2016	2.5	2.1	21	2.9	2.1	20	45.0%	-0.40 [-1.69, 0.89]	
Kitamura 2008	2.02	2.08	19	2.63	1.54	19	55.0%	-0.61 [-1.77, 0.55]	
Total (95% CI)			40			39	100.0%	-0.52 [-1.38, 0.35]	

Heterogeneity: Chi² = 0.06, df = 1 (P = 0.81); I² = 0%
Test for overall effect: Z = 1.17 (P = 0.24)

Favours [control]   Favours [FGF-2]

B

Study or Subgroup	Experimental Mean	SD	Total	Control Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI	Risk of Bias A B C D E F G
Cochran 2016	3	1.4	21	2.9	2.1	20	13.0%	0.10 [-1.00, 1.20]	
Kitamura 2008	2.18	1.33	17	2.63	1.54	19	15.3%	-0.45 [-1.39, 0.49]	
Kitamura 2011	2.35	1.78	55	2.12	1.72	57	20.3%	0.23 [-0.42, 0.88]	
Kitamura 2016	2.1	1.58	213	2	1.48	106	25.7%	0.10 [-0.25, 0.45]	
Kitamura 2016	2.7	1.29	110	1.7	1.39	110	25.7%	1.00 [0.65, 1.35]	
Total (95% CI)			416			312	100.0%	0.27 [-0.26, 0.81]	

Heterogeneity: Tau² = 0.25; Chi² = 17.39, df = 4 (P = 0.002); I² = 77%
Test for overall effect: Z = 1.01 (P = 0.31)

Favours [control]   Favours [FGF-2]

C

Study or Subgroup	Experimental Mean	SD	Total	Control Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI	Risk of Bias A B C D E F G
Cochran 2016	3.6	1.8	21	2.9	2.1	20	23.8%	0.70 [-0.50, 1.90]	
Kitamura 2011	2.46	1.91	56	2.12	1.72	57	76.2%	0.34 [-0.33, 1.01]	
Total (95% CI)			77			77	100.0%	0.43 [-0.16, 1.01]	

Heterogeneity: Chi² = 0.26, df = 1 (P = 0.61); I² = 0%
Test for overall effect: Z = 1.43 (P = 0.15)

Favours [control]   Favours [FGF-2]

S1A. Forest plot of comparison: 0.1% FGF2 groups was compared with control groups among patients with osseous defects, outcome: CAL-G.
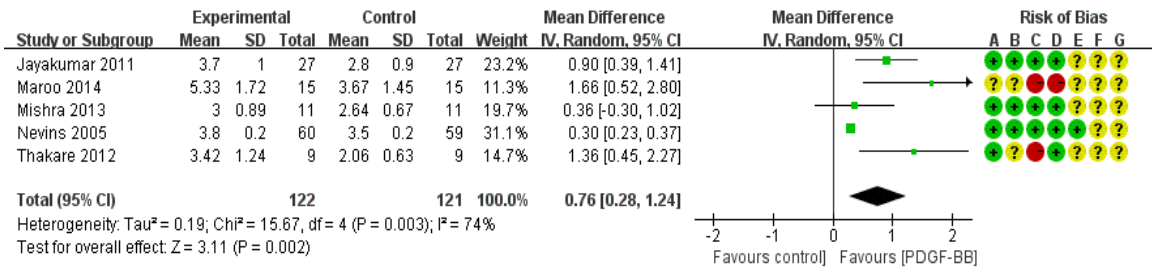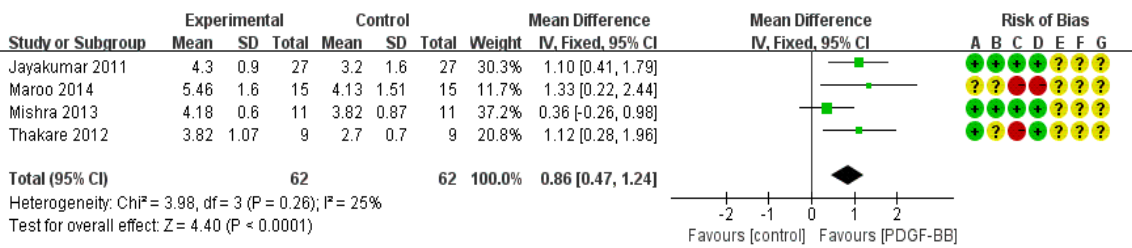
S1B. Forest plot of comparison: 0.3% FGF2 groups was compared with control groups among patients with osseous defects, outcome: CAL-G.

S1C. Forest plot of comparison: 0.4% FGF2 groups was compared with control groups among patients with osseous defects, outcome: CAL-G.
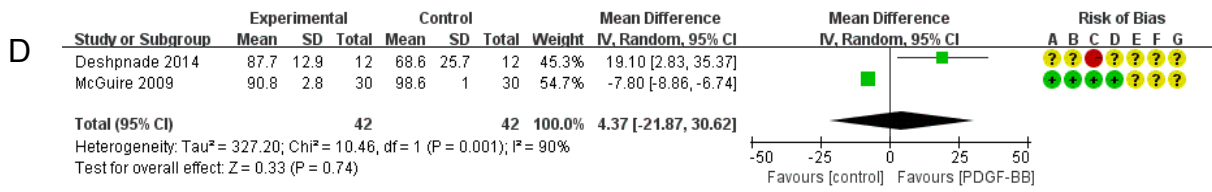
S2

A

Study or Subgroup	Experimental Mean	SD	Total	Control Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
Jayakumar 2011	3.7	1	27	2.8	0.9	27	23.2%	0.90 [0.39, 1.41]
Maroo 2014	5.33	1.72	15	3.67	1.45	15	11.3%	1.66 [0.52, 2.80]
Mishra 2013	3	0.89	11	2.64	0.67	11	19.7%	0.36 [-0.30, 1.02]
Nevins 2005	3.8	0.2	60	3.5	0.2	59	31.1%	0.30 [0.23, 0.37]
Thakare 2012	3.42	1.24	9	2.06	0.63	9	14.7%	1.36 [0.45, 2.27]
Total (95% CI)			122			121	100.0%	0.76 [0.28, 1.24]

Heterogeneity: Tau² = 0.19; Chi² = 15.67, df = 4 (P = 0.003); I² = 74%
Test for overall effect: Z = 3.11 (P = 0.002)

Favours control]   Favours [PDGF-BB]

Risk of Bias A B C D E F G

B

Study or Subgroup	Experimental Mean	SD	Total	Control Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI
Jayakumar 2011	4.3	0.9	27	3.2	1.6	27	30.3%	1.10 [0.41, 1.79]
Maroo 2014	5.46	1.6	15	4.13	1.51	15	11.7%	1.33 [0.22, 2.44]
Mishra 2013	4.18	0.6	11	3.82	0.87	11	37.2%	0.36 [-0.26, 0.98]
Thakare 2012	3.82	1.07	9	2.7	0.7	9	20.8%	1.12 [0.28, 1.96]
Total (95% CI)			62			62	100.0%	0.86 [0.47, 1.24]

Heterogeneity: Chi² = 3.98, df = 3 (P = 0.26); I² = 25%
Test for overall effect: Z = 4.40 (P < 0.0001)

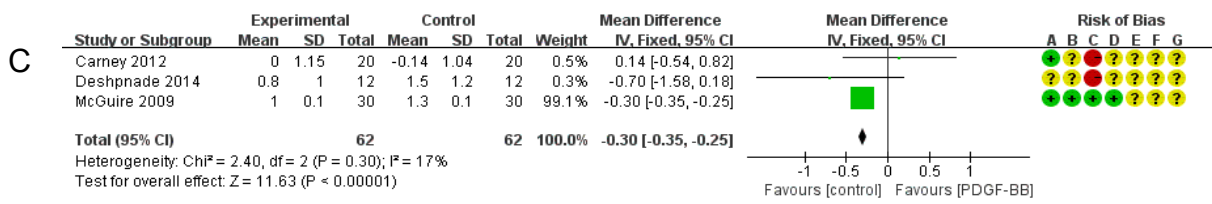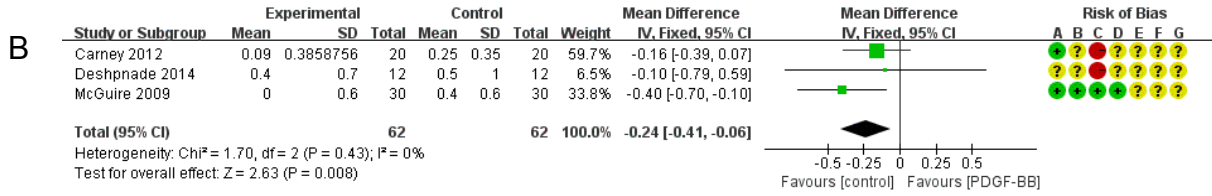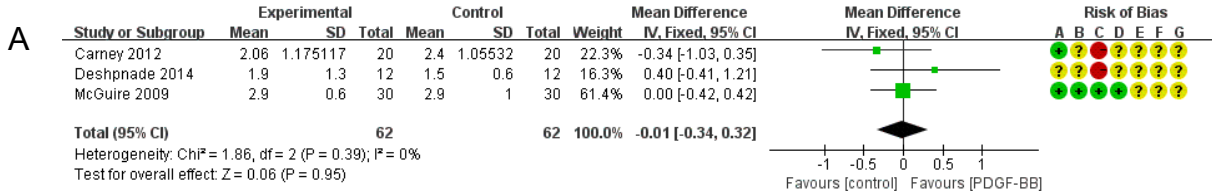Favours [control]   Favours [PDGF-BB]

Risk of Bias A B C D E F G

S2A. Forest plot of comparison: 0.3mg/ml PDGF-BB groups was compared with control groups among patients with osseous defects, outcome: CAL-G.
S2B. Forest plot of comparison: 0.3mg/ml PDGF-BB groups was compared with control groups among patients with osseous defects, outcome: PDR.

S3

A

Study or Subgroup	Experimental Mean	SD	Total	Control Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI
Carney 2012	2.06	1.175117	20	2.4	1.05532	20	22.3%	-0.34 [-1.03, 0.35]
Deshpnade 2014	1.9	1.3	12	1.5	0.6	12	16.3%	0.40 [-0.41, 1.21]
McGuire 2009	2.9	0.6	30	2.9	1	30	61.4%	0.00 [-0.42, 0.42]
Total (95% CI)			62			62	100.0%	-0.01 [-0.34, 0.32]

Heterogeneity: Chi² = 1.86, df = 2 (P = 0.39); I² = 0%
Test for overall effect: Z = 0.06 (P = 0.95)

Mean Difference IV, Fixed, 95% CI — Favours [control] Favours [PDGF-BB]
Risk of Bias: A B C D E F G

B

Study or Subgroup	Experimental Mean	SD	Total	Control Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI
Carney 2012	0.09	0.3858756	20	0.25	0.35	20	59.7%	-0.16 [-0.39, 0.07]
Deshpnade 2014	0.4	0.7	12	0.5	1	12	6.5%	-0.10 [-0.79, 0.59]
McGuire 2009	0	0.6	30	0.4	0.6	30	33.8%	-0.40 [-0.70, -0.10]
Total (95% CI)			62			62	100.0%	-0.24 [-0.41, -0.06]

Heterogeneity: Chi² = 1.70, df = 2 (P = 0.43); I² = 0%
Test for overall effect: Z = 2.63 (P = 0.008)

Mean Difference IV, Fixed, 95% CI — Favours [control] Favours [PDGF-BB]
Risk of Bias: A B C D E F G

C

Study or Subgroup	Experimental Mean	SD	Total	Control Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI
Carney 2012	0	1.15	20	-0.14	1.04	20	0.5%	0.14 [-0.54, 0.82]
Deshpnade 2014	0.8	1	12	1.5	1.2	12	0.3%	-0.70 [-1.58, 0.18]
McGuire 2009	1	0.1	30	1.3	0.1	30	99.1%	-0.30 [-0.35, -0.25]
Total (95% CI)			62			62	100.0%	-0.30 [-0.35, -0.25]

Heterogeneity: Chi² = 2.40, df = 2 (P = 0.30); I² = 17%
Test for overall effect: Z = 11.63 (P < 0.00001)

Mean Difference IV, Fixed, 95% CI — Favours [control] Favours [PDGF-BB]
Risk of Bias: A B C D E F G

D

Study or Subgroup	Experimental Mean	SD	Total	Control Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
Deshpnade 2014	87.7	12.9	12	68.6	25.7	12	45.3%	19.10 [2.83, 35.37]
McGuire 2009	90.8	2.8	30	98.6	1	30	54.7%	-7.80 [-8.86, -6.74]
Total (95% CI)			42			42	100.0%	4.37 [-21.87, 30.62]

Heterogeneity: Tau² = 327.20; Chi² = 10.46, df = 1 (P = 0.001); I² = 90%
Test for overall effect: Z = 0.33 (P = 0.74)

Mean Difference IV, Random, 95% CI — Favours [control] Favours [PDGF-BB]
Risk of Bias: A B C D E F G

S3A. Forest plot of comparison: 0.3mg/ml PDGF-BB groups was compared with control groups among patients with gingival recession, outcome: CAL-G.

S3B. Forest plot of comparison: 0.3mg/ml PDGF-BB groups was compared with control groups among patients with gingival recession, outcome: PDR.

S3C. Forest plot of comparison: 0.3mg/ml PDGF-BB groups was compared with control groups among patients with gingival recession, outcome: WKT

S3D. Forest plot of comparison: 0.3mg/ml PDGF-BB groups was compared with control groups among patients with gingival recession, outcome: PRC..