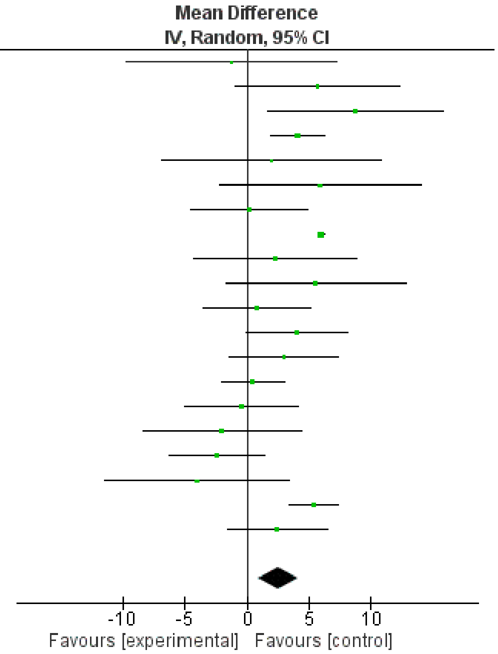
	Intervention			Control				Mean Difference
Study or Subgroup	**Mean**	**SD**	**Total**	**Mean**	**SD**	**Total**	**Weight**	**IV, Random, 95% CI**
Angeli 2012	41.9	9.6	11	43.1	10.6	11	2.5%	-1.20 [-9.65, 7.25]
Attar 2023 a	50	10.21	20	44.27	8.65	12	3.5%	5.73 [-0.90, 12.36]
Attar 2023 b	53	12.11	20	44.27	8.65	13	3.2%	8.73 [1.64, 15.82]
Cao 2009	50.5	5	41	46.4	5.2	45	8.0%	4.10 [1.94, 6.26]
Chullikana 2015	46.98	7.56	8	45	10.21	8	2.4%	1.98 [-6.82, 10.78]
Colombo 2011	46.2	5.4	5	40.3	6.7	4	2.7%	5.90 [-2.19, 13.99]
Gao 2013	55.1	7.846	19	54.9	7.1554	20	5.1%	0.20 [-4.52, 4.92]
Gao 2015	60	0.5	57	54	0.8	55	9.4%	6.00 [5.75, 6.25]
Ge 2006	58.6	9.9	10	56.3	3.5	10	3.6%	2.30 [-4.21, 8.81]
Grajek 2010	49.95	7.9	27	44.4	11.74	12	3.1%	5.55 [-1.73, 12.83]
Hare 2009	56.9	10.31	34	56.1	5.8	19	5.5%	0.80 [-3.54, 5.14]
Huikuri 2008	60	8	39	56	10	38	5.8%	4.00 [-0.05, 8.05]
Kaminek M 2010	46	9	37	43	10	36	5.5%	3.00 [-1.37, 7.37]
Kim SH 2018	45	4.2	14	44.5	2.3	12	7.6%	0.50 [-2.06, 3.06]
Lee 2014	50	8.4	30	50.4	9.4	28	5.2%	-0.40 [-5.00, 4.20]
Penicka 2007	45	9	14	47	7	10	3.7%	-2.00 [-8.41, 4.41]
Roncalli 2011	39.1	10.2	48	41.5	8.8	44	6.0%	-2.40 [-6.28, 1.48]
Srimahachota S 2011	38	9.4	11	42	8.7	12	3.1%	-4.00 [-11.42, 3.42]
Wen X 2012	44	2.6	17	38.6	3.7	21	8.2%	5.40 [3.39, 7.41]
Zhang 2021	62	6.8	18	59.5	5.6	19	5.8%	2.50 [-1.53, 6.53]
Total (95% CI)			**480**			**429**	**100.0%**	**2.53 [0.95, 4.10]**

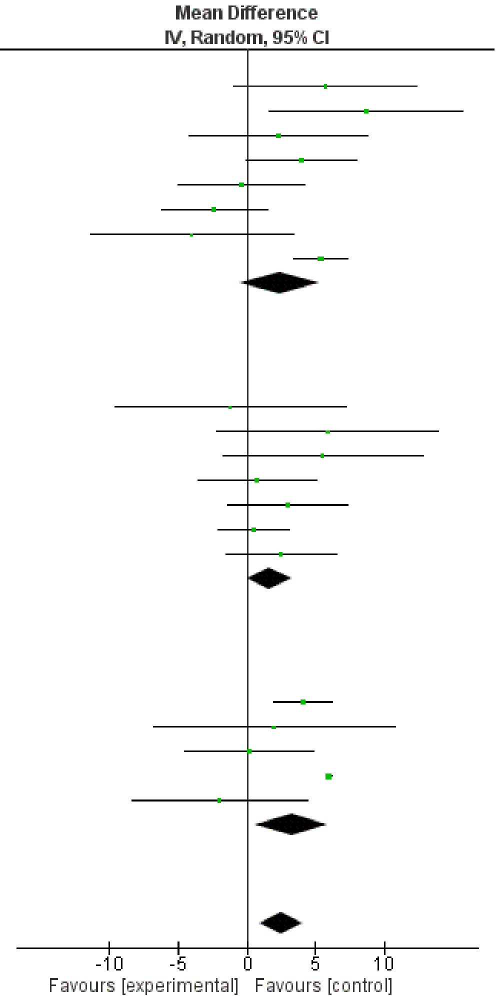
Heterogeneity: Tau² = 6.87; Chi² = 78.57, df = 19 (P < 0.00001); I² = 76%

Test for overall effect: Z = 3.14 (P = 0.002)



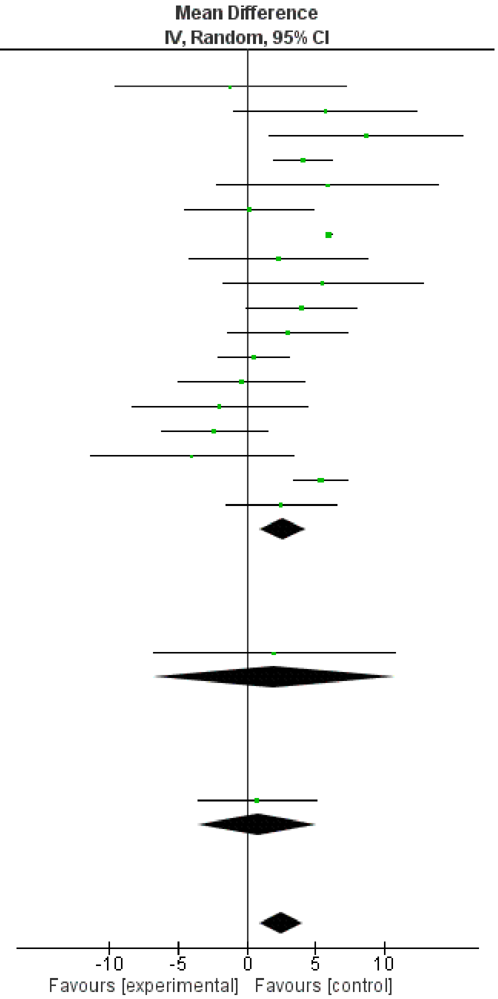
Supplementary Fig. 7A. Forest plot illustrates the efficacy of stem cell therapy on left ventricular ejection fraction (LVEF) at the end of the study, compared with the control group. LVEF was assessed using echocardiography.

Study or Subgroup	Intervention Mean	Intervention SD	Intervention Total	Control Mean	Control SD	Control Total	Weight	Mean Difference IV, Random, 95% CI
1.2.1 time of assessment upto 6 months								
Attar 2023 a	50	10.21	20	44.27	8.65	12	3.5%	5.73 [-0.90, 12.36]
Attar 2023 b	53	12.11	20	44.27	8.65	13	3.2%	8.73 [1.64, 15.82]
Ge 2006	58.6	9.9	10	56.3	3.5	10	3.6%	2.30 [-4.21, 8.81]
Huikuri 2008	60	8	39	56	10	38	5.8%	4.00 [-0.05, 8.05]
Lee 2014	50	8.4	30	50.4	9.4	28	5.2%	-0.40 [-5.00, 4.20]
Roncalli 2011	39.1	10.2	48	41.5	8.8	44	6.0%	-2.40 [-6.28, 1.48]
Srimahachota S 2011	38	9.4	11	42	8.7	12	3.1%	-4.00 [-11.42, 3.42]
Wen X 2012	44	2.6	17	38.6	3.7	21	8.2%	5.40 [3.39, 7.41]
Subtotal (95% CI)			**195**			**178**	**38.7%**	**2.44 [-0.45, 5.33]**
Heterogeneity: Tau² = 10.55; Chi² = 21.65, df = 7 (P = 0.003); I² = 68%								
Test for overall effect: Z = 1.65 (P = 0.10)								
1.2.2 time of assessment upto 12 months								
Angeli 2012	41.9	9.6	11	43.1	10.6	11	2.5%	-1.20 [-9.65, 7.25]
Colombo 2011	46.2	5.4	5	40.3	6.7	4	2.7%	5.90 [-2.19, 13.99]
Grajek 2010	49.95	7.9	27	44.4	11.74	12	3.1%	5.55 [-1.73, 12.83]
Hare 2009	56.9	10.31	34	56.1	5.8	19	5.5%	0.80 [-3.54, 5.14]
Kaminek M 2010	46	9	37	43	10	36	5.5%	3.00 [-1.37, 7.37]
Kim SH 2018	45	4.2	14	44.5	2.3	12	7.6%	0.50 [-2.06, 3.06]
Zhang 2021	62	6.8	18	59.5	5.6	19	5.8%	2.50 [-1.53, 6.53]
Subtotal (95% CI)			**146**			**113**	**32.7%**	**1.65 [0.00, 3.30]**
Heterogeneity: Tau² = 0.00; Chi² = 4.06, df = 6 (P = 0.67); I² = 0%								
Test for overall effect: Z = 1.96 (P = 0.05)								
1.2.3 time of assessment more than 12 months								
Cao 2009	50.5	5	41	46.4	5.2	45	8.0%	4.10 [1.94, 6.26]
Chullikana 2015	46.98	7.56	8	45	10.21	8	2.4%	1.98 [-6.82, 10.78]
Gao 2013	55.1	7.846	19	54.9	7.1554	20	5.1%	0.20 [-4.52, 4.92]
Gao 2015	60	0.5	57	54	0.8	55	9.4%	6.00 [5.75, 6.25]
Penicka 2007	45	9	14	47	7	10	3.7%	-2.00 [-8.41, 4.41]
Subtotal (95% CI)			**139**			**138**	**28.6%**	**3.27 [0.64, 5.91]**
Heterogeneity: Tau² = 5.05; Chi² = 15.38, df = 4 (P = 0.004); I² = 74%								
Test for overall effect: Z = 2.43 (P = 0.01)								
Total (95% CI)			**480**			**429**	**100.0%**	**2.53 [0.95, 4.10]**
Heterogeneity: Tau² = 6.87; Chi² = 78.57, df = 19 (P < 0.00001); I² = 76%								
Test for overall effect: Z = 3.14 (P = 0.002)								
Test for subgroup differences: Chi² = 1.09, df = 2 (P = 0.58), I² = 0%								



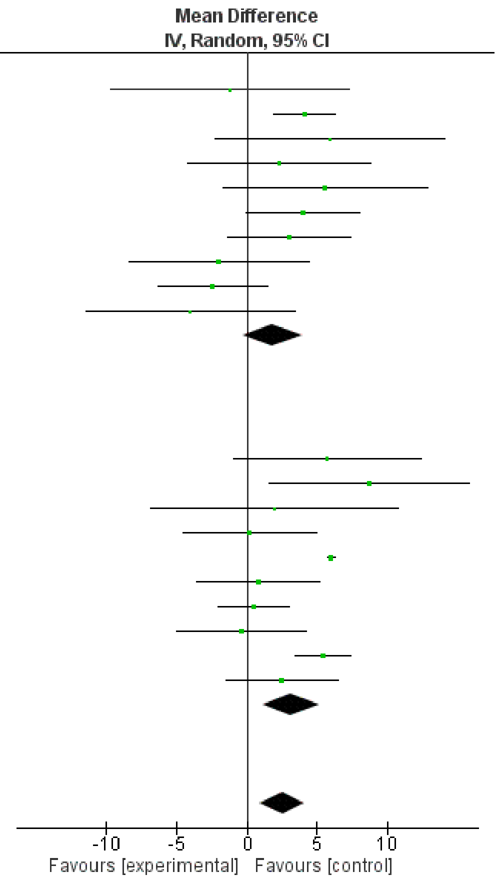
Supplementary Fig. 7B. Forest plot showing subgroup analysis of the efficacy of stem cell therapy on left ventricular ejection fraction (LVEF) at the end of the study, compared with control, stratified by the time of outcome assessment. LVEF was measured using echocardiography.

Study or Subgroup	Intervention Mean	Intervention SD	Intervention Total	Control Mean	Control SD	Control Total	Weight	Mean Difference IV, Random, 95% CI
1.4.1 Intracoronary								
Angeli 2012	41.9	9.6	11	43.1	10.6	11	2.5%	-1.20 [-9.65, 7.25]
Attar 2023 a	50	10.21	20	44.27	8.65	12	3.5%	5.73 [-0.90, 12.36]
Attar 2023 b	53	12.11	20	44.27	8.65	13	3.2%	8.73 [1.64, 15.82]
Cao 2009	50.5	5	41	46.4	5.2	45	8.0%	4.10 [1.94, 6.26]
Colombo 2011	46.2	5.4	5	40.3	6.7	4	2.7%	5.90 [-2.19, 13.99]
Gao 2013	55.1	7.846	19	54.9	7.1554	20	5.1%	0.20 [-4.52, 4.92]
Gao 2015	60	0.5	57	54	0.8	55	9.4%	6.00 [5.75, 6.25]
Ge 2006	58.6	9.9	10	56.3	3.5	10	3.6%	2.30 [-4.21, 8.81]
Grajek 2010	49.95	7.9	27	44.4	11.74	12	3.1%	5.55 [-1.73, 12.83]
Huikuri 2008	60	8	39	56	10	38	5.8%	4.00 [-0.05, 8.05]
Kaminek M 2010	46	9	37	43	10	36	5.5%	3.00 [-1.37, 7.37]
Kim SH 2018	45	4.2	14	44.5	2.3	12	7.6%	0.50 [-2.06, 3.06]
Lee 2014	50	8.4	30	50.4	9.4	28	5.2%	-0.40 [-5.00, 4.20]
Penicka 2007	45	9	14	47	7	10	3.7%	-2.00 [-8.41, 4.41]
Roncalli 2011	39.1	10.2	48	41.5	8.8	44	6.0%	-2.40 [-6.28, 1.48]
Srimahachota S 2011	38	9.4	11	42	8.7	12	3.1%	-4.00 [-11.42, 3.42]
Wen X 2012	44	2.6	17	38.6	3.7	21	8.2%	5.40 [3.39, 7.41]
Zhang 2021	62	6.8	18	59.5	5.6	19	5.8%	2.50 [-1.53, 6.53]
Subtotal (95% CI)			**438**			**402**	**92.1%**	**2.65 [1.01, 4.28]**
Heterogeneity: Tau² = 6.81; Chi² = 72.77, df = 17 (P < 0.00001); I² = 77%								
Test for overall effect: Z = 3.17 (P = 0.002)								
1.4.2 anticubital vein of forearm								
Chullikana 2015	46.98	7.56	8	45	10.21	8	2.4%	1.98 [-6.82, 10.78]
Subtotal (95% CI)			**8**			**8**	**2.4%**	**1.98 [-6.82, 10.78]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 0.44 (P = 0.66)								
1.4.3 intravenous								
Hare 2009	56.9	10.31	34	56.1	5.8	19	5.5%	0.80 [-3.54, 5.14]
Subtotal (95% CI)			**34**			**19**	**5.5%**	**0.80 [-3.54, 5.14]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 0.36 (P = 0.72)								
Total (95% CI)			**480**			**429**	**100.0%**	**2.53 [0.95, 4.10]**
Heterogeneity: Tau² = 6.87; Chi² = 78.57, df = 19 (P < 0.00001); I² = 76%								
Test for overall effect: Z = 3.14 (P = 0.002)								
Test for subgroup differences: Chi² = 0.62, df = 2 (P = 0.73), I² = 0%								



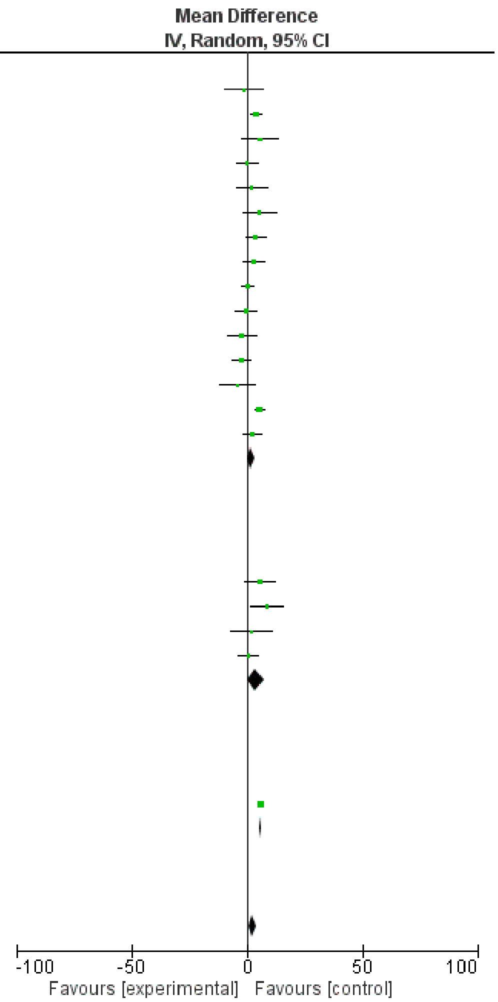
Supplementary Fig. 7C. Forest plot showing subgroup analysis of the efficacy of stem cell therapy on left ventricular ejection fraction (LVEF) at the end of the study, compared with control, stratified by the type of cells administered. LVEF was measured using echocardiography.

Study or Subgroup	Intervention Mean	Intervention SD	Intervention Total	Control Mean	Control SD	Control Total	Weight	Mean Difference IV, Random, 95% CI
1.3.1 Mononuclear								
Angeli 2012	41.9	9.6	11	43.1	10.6	11	2.5%	-1.20 [-9.65, 7.25]
Cao 2009	50.5	5	41	46.4	5.2	45	8.0%	4.10 [1.94, 6.26]
Colombo 2011	46.2	5.4	5	40.3	6.7	4	2.7%	5.90 [-2.19, 13.99]
Ge 2006	58.6	9.9	10	56.3	3.5	10	3.6%	2.30 [-4.21, 8.81]
Grajek 2010	49.95	7.9	27	44.4	11.74	12	3.1%	5.55 [-1.73, 12.83]
Huikuri 2008	60	8	39	56	10	38	5.8%	4.00 [-0.05, 8.05]
Kaminek M 2010	46	9	37	43	10	36	5.5%	3.00 [-1.37, 7.37]
Penicka 2007	45	9	14	47	7	10	3.7%	-2.00 [-8.41, 4.41]
Roncalli 2011	39.1	10.2	48	41.5	8.8	44	6.0%	-2.40 [-6.28, 1.48]
Srimahachota S 2011	38	9.4	11	42	8.7	12	3.1%	-4.00 [-11.42, 3.42]
Subtotal (95% CI)			**243**			**222**	**44.0%**	**1.83 [-0.31, 3.96]**
Heterogeneity: Tau² = 4.46; Chi² = 15.73, df = 9 (P = 0.07); I² = 43%								
Test for overall effect: Z = 1.68 (P = 0.09)								
1.3.2 Mesenchymal								
Attar 2023 a	50	10.21	20	44.27	8.65	12	3.5%	5.73 [-0.90, 12.36]
Attar 2023 b	53	12.11	20	44.27	8.65	13	3.2%	8.73 [1.64, 15.82]
Chullikana 2015	46.98	7.56	8	45	10.21	8	2.4%	1.98 [-6.82, 10.78]
Gao 2013	55.1	7.846	19	54.9	7.1554	20	5.1%	0.20 [-4.52, 4.92]
Gao 2015	60	0.5	57	54	0.8	55	9.4%	6.00 [5.75, 6.25]
Hare 2009	56.9	10.31	34	56.1	5.8	19	5.5%	0.80 [-3.54, 5.14]
Kim SH 2018	45	4.2	14	44.5	2.3	12	7.6%	0.50 [-2.06, 3.06]
Lee 2014	50	8.4	30	50.4	9.4	28	5.2%	-0.40 [-5.00, 4.20]
Wen X 2012	44	2.6	17	38.6	3.7	21	8.2%	5.40 [3.39, 7.41]
Zhang 2021	62	6.8	18	59.5	5.6	19	5.8%	2.50 [-1.53, 6.53]
Subtotal (95% CI)			**237**			**207**	**56.0%**	**3.15 [1.11, 5.19]**
Heterogeneity: Tau² = 6.27; Chi² = 40.21, df = 9 (P < 0.00001); I² = 78%								
Test for overall effect: Z = 3.02 (P = 0.003)								
Total (95% CI)			**480**			**429**	**100.0%**	**2.53 [0.95, 4.10]**
Heterogeneity: Tau² = 6.87; Chi² = 78.57, df = 19 (P < 0.00001); I² = 76%								
Test for overall effect: Z = 3.14 (P = 0.002)								
Test for subgroup differences: Chi² = 0.77, df = 1 (P = 0.38), I² = 0%								



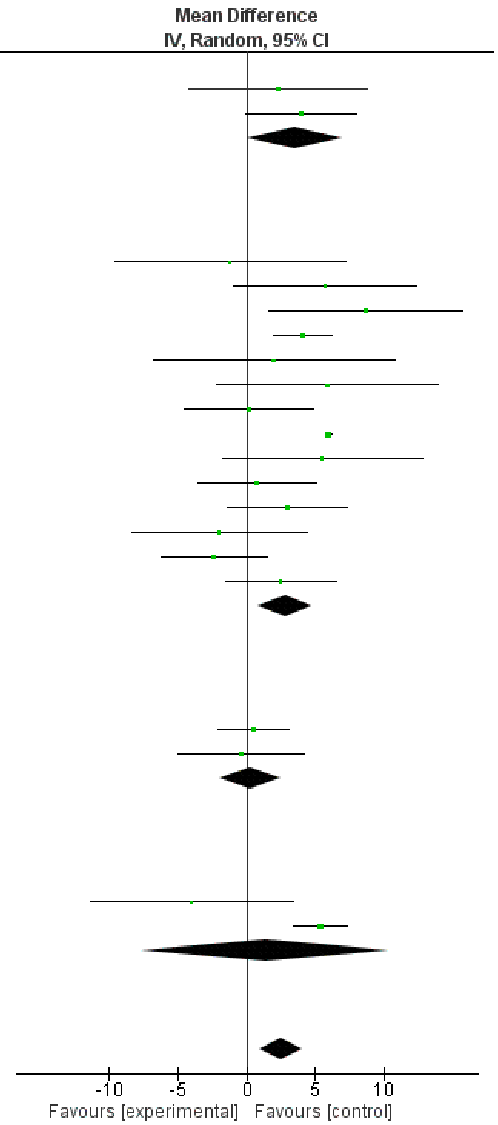
Supplementary Fig. 7D. Forest plot showing subgroup analysis of the efficacy of stem cell therapy on left ventricular ejection fraction (LVEF) at the end of the study, compared with control, stratified by route of administration. LVEF was measured using echocardiography.

	Intervention			Control				Mean Difference
Study or Subgroup	**Mean**	**SD**	**Total**	**Mean**	**SD**	**Total**	**Weight**	**IV, Random, 95% CI**
1.5.1 Autologous								
Angeli 2012	41.9	9.6	11	43.1	10.6	11	2.5%	-1.20 [-9.65, 7.25]
Cao 2009	50.5	5	41	46.4	5.2	45	8.0%	4.10 [1.94, 6.26]
Colombo 2011	46.2	5.4	5	40.3	6.7	4	2.7%	5.90 [-2.19, 13.99]
Gao 2013	55.1	7.846	19	54.9	7.1554	20	5.1%	0.20 [-4.52, 4.92]
Ge 2006	58.6	9.9	10	56.3	3.5	10	3.6%	2.30 [-4.21, 8.81]
Grajek 2010	49.95	7.9	27	44.4	11.74	12	3.1%	5.55 [-1.73, 12.83]
Huikuri 2008	60	8	39	56	10	38	5.8%	4.00 [-0.05, 8.05]
Kaminek M 2010	46	9	37	43	10	36	5.5%	3.00 [-1.37, 7.37]
Kim SH 2018	45	4.2	14	44.5	2.3	12	7.6%	0.50 [-2.06, 3.06]
Lee 2014	50	8.4	30	50.4	9.4	28	5.2%	-0.40 [-5.00, 4.20]
Penicka 2007	45	9	14	47	7	10	3.7%	-2.00 [-8.41, 4.41]
Roncalli 2011	39.1	10.2	48	41.5	8.8	44	6.0%	-2.40 [-6.28, 1.48]
Srimahachota S 2011	38	9.4	11	42	8.7	12	3.1%	-4.00 [-11.42, 3.42]
Wen X 2012	44	2.6	17	38.6	3.7	21	8.2%	5.40 [3.39, 7.41]
Zhang 2021	62	6.8	18	59.5	5.6	19	5.8%	2.50 [-1.53, 6.53]
Subtotal (95% CI)			**341**			**322**	**75.9%**	**1.93 [0.37, 3.50]**
Heterogeneity: Tau² = 4.09; Chi² = 28.48, df = 14 (P = 0.01); I² = 51%								
Test for overall effect: Z = 2.42 (P = 0.02)								
1.5.2 Allogeneic								
Attar 2023 a	50	10.21	20	44.27	8.65	12	3.5%	5.73 [-0.90, 12.36]
Attar 2023 b	53	12.11	20	44.27	8.65	13	3.2%	8.73 [1.64, 15.82]
Chullikana 2015	46.98	7.56	8	45	10.21	8	2.4%	1.98 [-6.82, 10.78]
Hare 2009	56.9	10.31	34	56.1	5.8	19	5.5%	0.80 [-3.54, 5.14]
Subtotal (95% CI)			**82**			**52**	**14.7%**	**3.80 [0.08, 7.53]**
Heterogeneity: Tau² = 4.02; Chi² = 4.13, df = 3 (P = 0.25); I² = 27%								
Test for overall effect: Z = 2.00 (P = 0.05)								
1.5.3 Not mentioned								
Gao 2015	60	0.5	57	54	0.8	55	9.4%	6.00 [5.75, 6.25]
Subtotal (95% CI)			**57**			**55**	**9.4%**	**6.00 [5.75, 6.25]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 47.40 (P < 0.00001)								
Total (95% CI)			**480**			**429**	**100.0%**	**2.53 [0.95, 4.10]**
Heterogeneity: Tau² = 6.87; Chi² = 78.57, df = 19 (P < 0.00001); I² = 76%								
Test for overall effect: Z = 3.14 (P = 0.002)								
Test for subgroup differences: Chi² = 26.57, df = 2 (P < 0.00001), I² = 92.5%								



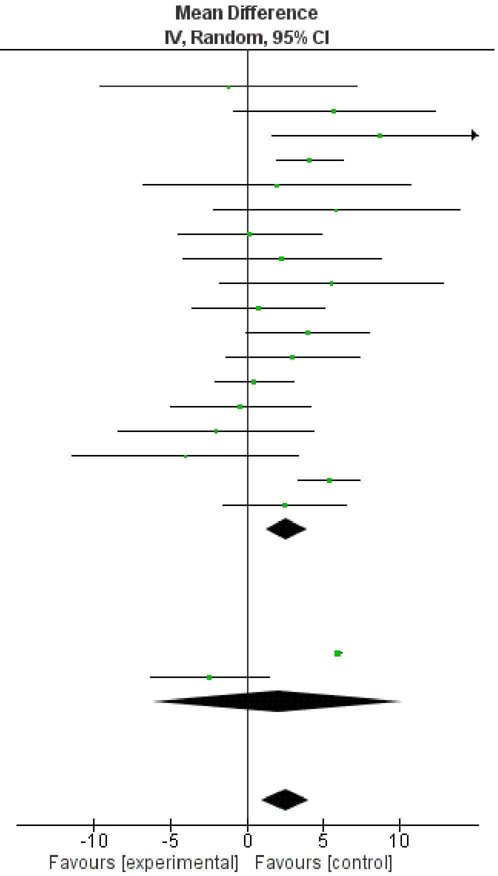
Supplementary Fig. 7E. Forest plot showing subgroup analysis of the efficacy of stem cell therapy on left ventricular ejection fraction (LVEF) at the end of the study, compared with control, stratified by autologous vs allogeneic stem cells. LVEF was measured using echocardiography.

	Intervention			Control				Mean Difference
Study or Subgroup	**Mean**	**SD**	**Total**	**Mean**	**SD**	**Total**	**Weight**	**IV, Random, 95% CI**
1.6.1 Administration < 24 hours								
Ge 2006	58.6	9.9	10	56.3	3.5	10	3.6%	2.30 [-4.21, 8.81]
Huikuri 2008	60	8	39	56	10	38	5.8%	4.00 [-0.05, 8.05]
Subtotal (95% CI)			**49**			**48**	**9.4%**	**3.53 [0.09, 6.96]**
Heterogeneity: Tau² = 0.00; Chi² = 0.19, df = 1 (P = 0.66); I² = 0%								
Test for overall effect: Z = 2.01 (P = 0.04)								
1.6.2 Administration 1 - 21 days								
Angeli 2012	41.9	9.6	11	43.1	10.6	11	2.5%	-1.20 [-9.65, 7.25]
Attar 2023 a	50	10.21	20	44.27	8.65	12	3.5%	5.73 [-0.90, 12.36]
Attar 2023 b	53	12.11	20	44.27	8.65	13	3.2%	8.73 [1.64, 15.82]
Cao 2009	50.5	5	41	46.4	5.2	45	8.0%	4.10 [1.94, 6.26]
Chullikana 2015	46.98	7.56	8	45	10.21	8	2.4%	1.98 [-6.82, 10.78]
Colombo 2011	46.2	5.4	5	40.3	6.7	4	2.7%	5.90 [-2.19, 13.99]
Gao 2013	55.1	7.846	19	54.9	7.1554	20	5.1%	0.20 [-4.52, 4.92]
Gao 2015	60	0.5	57	54	0.8	55	9.4%	6.00 [5.75, 6.25]
Grajek 2010	49.95	7.9	27	44.4	11.74	12	3.1%	5.55 [-1.73, 12.83]
Hare 2009	56.9	10.31	34	56.1	5.8	19	5.5%	0.80 [-3.54, 5.14]
Kaminek M 2010	46	9	37	43	10	36	5.5%	3.00 [-1.37, 7.37]
Penicka 2007	45	9	14	47	7	10	3.7%	-2.00 [-8.41, 4.41]
Roncalli 2011	39.1	10.2	48	41.5	8.8	44	6.0%	-2.40 [-6.28, 1.48]
Zhang 2021	62	6.8	18	59.5	5.6	19	5.8%	2.50 [-1.53, 6.53]
Subtotal (95% CI)			**359**			**308**	**66.6%**	**2.81 [0.86, 4.76]**
Heterogeneity: Tau² = 7.08; Chi² = 46.07, df = 13 (P < 0.0001); I² = 72%								
Test for overall effect: Z = 2.83 (P = 0.005)								
1.6.3 Administration > 21 days								
Kim SH 2018	45	4.2	14	44.5	2.3	12	7.6%	0.50 [-2.06, 3.06]
Lee 2014	50	8.4	30	50.4	9.4	28	5.2%	-0.40 [-5.00, 4.20]
Subtotal (95% CI)			**44**			**40**	**12.8%**	**0.29 [-1.95, 2.52]**
Heterogeneity: Tau² = 0.00; Chi² = 0.11, df = 1 (P = 0.74); I² = 0%								
Test for overall effect: Z = 0.25 (P = 0.80)								
1.6.4 Not mentioned								
Srimahachota S 2011	38	9.4	11	42	8.7	12	3.1%	-4.00 [-11.42, 3.42]
Wen X 2012	44	2.6	17	38.6	3.7	21	8.2%	5.40 [3.39, 7.41]
Subtotal (95% CI)			**28**			**33**	**11.2%**	**1.41 [-7.70, 10.51]**
Heterogeneity: Tau² = 36.49; Chi² = 5.74, df = 1 (P = 0.02); I² = 83%								
Test for overall effect: Z = 0.30 (P = 0.76)								
Total (95% CI)			**480**			**429**	**100.0%**	**2.53 [0.95, 4.10]**
Heterogeneity: Tau² = 6.87; Chi² = 78.57, df = 19 (P < 0.00001); I² = 76%								
Test for overall effect: Z = 3.14 (P = 0.002)								
Test for subgroup differences: Chi² = 3.69, df = 3 (P = 0.30), I² = 18.8%								



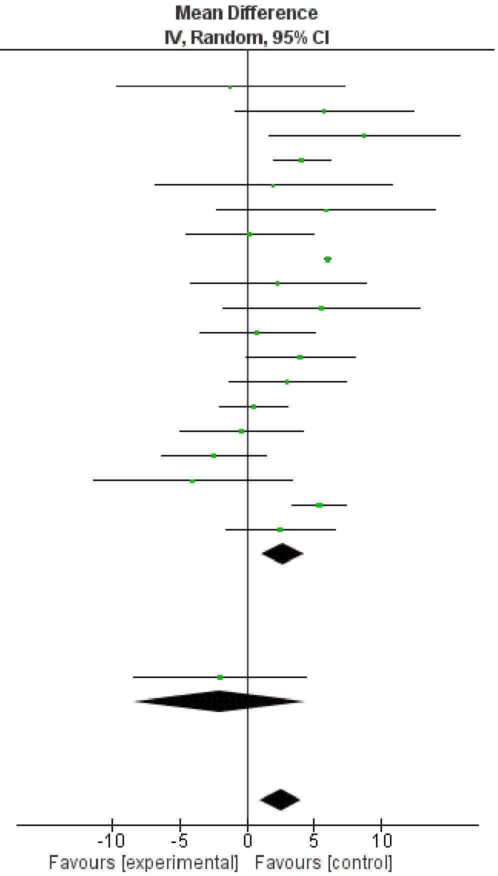
Supplementary Fig. 7F. Forest plot showing subgroup analysis of the efficacy of stem cell therapy on left ventricular ejection fraction (LVEF) at the end of the study, compared with control, stratified by the administration time. LVEF was measured using echocardiography.

Study or Subgroup	Intervention Mean	Intervention SD	Intervention Total	Control Mean	Control SD	Control Total	Weight	Mean Difference IV, Random, 95% CI
1.13.1 < 100								
Angeli 2012	41.9	9.6	11	43.1	10.6	11	2.5%	-1.20 [-9.65, 7.25]
Attar 2023 a	50	10.21	20	44.27	8.65	12	3.5%	5.73 [-0.90, 12.36]
Attar 2023 b	53	12.11	20	44.27	8.65	13	3.2%	8.73 [1.64, 15.82]
Cao 2009	50.5	5	41	46.4	5.2	45	8.0%	4.10 [1.94, 6.26]
Chullikana 2015	46.98	7.56	8	45	10.21	8	2.4%	1.98 [-6.82, 10.78]
Colombo 2011	46.2	5.4	5	40.3	6.7	4	2.7%	5.90 [-2.19, 13.99]
Gao 2013	55.1	7.846	19	54.9	7.1554	20	5.1%	0.20 [-4.52, 4.92]
Ge 2006	58.6	9.9	10	56.3	3.5	10	3.6%	2.30 [-4.21, 8.81]
Grajek 2010	49.95	7.9	27	44.4	11.74	12	3.1%	5.55 [-1.73, 12.83]
Hare 2009	56.9	10.31	34	56.1	5.8	19	5.5%	0.80 [-3.54, 5.14]
Huikuri 2008	60	8	39	56	10	38	5.8%	4.00 [-0.05, 8.05]
Kaminek M 2010	46	9	37	43	10	36	5.5%	3.00 [-1.37, 7.37]
Kim SH 2018	45	4.2	14	44.5	2.3	12	7.6%	0.50 [-2.06, 3.06]
Lee 2014	50	8.4	30	50.4	9.4	28	5.2%	-0.40 [-5.00, 4.20]
Penicka 2007	45	9	14	47	7	10	3.7%	-2.00 [-8.41, 4.41]
Srimahachota S 2011	38	9.4	11	42	8.7	12	3.1%	-4.00 [-11.42, 3.42]
Wen X 2012	44	2.6	17	38.6	3.7	21	8.2%	5.40 [3.39, 7.41]
Zhang 2021	62	6.8	18	59.5	5.6	19	5.8%	2.50 [-1.53, 6.53]
Subtotal (95% CI)			**375**			**330**	**84.6%**	**2.62 [1.30, 3.94]**
Heterogeneity: Tau² = 2.37; Chi² = 25.82, df = 17 (P = 0.08); I² = 34%								
Test for overall effect: Z = 3.89 (P = 0.0001)								
1.13.2 ≥ 100								
Gao 2015	60	0.5	57	54	0.8	55	9.4%	6.00 [5.75, 6.25]
Roncalli 2011	39.1	10.2	48	41.5	8.8	44	6.0%	-2.40 [-6.28, 1.48]
Subtotal (95% CI)			**105**			**99**	**15.4%**	**2.03 [-6.19, 10.25]**
Heterogeneity: Tau² = 33.31; Chi² = 17.89, df = 1 (P < 0.0001); I² = 94%								
Test for overall effect: Z = 0.48 (P = 0.63)								
Total (95% CI)			**480**			**429**	**100.0%**	**2.53 [0.95, 4.10]**
Heterogeneity: Tau² = 6.87; Chi² = 78.57, df = 19 (P < 0.00001); I² = 76%								
Test for overall effect: Z = 3.14 (P = 0.002)								
Test for subgroup differences: Chi² = 0.02, df = 1 (P = 0.89), I² = 0%								



Supplementary Fig. 7G. Forest plot showing subgroup analysis of the efficacy of stem cell therapy on left ventricular ejection fraction (LVEF) at the end of the study, compared with control, stratified by the sample size. LVEF was measured using echocardiography.

Study or Subgroup	Intervention Mean	Intervention SD	Intervention Total	Control Mean	Control SD	Control Total	Weight	Mean Difference IV, Random, 95% CI
1.15.1 < 500 million								
Angeli 2012	41.9	9.6	11	43.1	10.6	11	2.5%	-1.20 [-9.65, 7.25]
Attar 2023 a	50	10.21	20	44.27	8.65	12	3.5%	5.73 [-0.90, 12.36]
Attar 2023 b	53	12.11	20	44.27	8.65	13	3.2%	8.73 [1.64, 15.82]
Cao 2009	50.5	5	41	46.4	5.2	45	8.0%	4.10 [1.94, 6.26]
Chullikana 2015	46.98	7.56	8	45	10.21	8	2.4%	1.98 [-6.82, 10.78]
Colombo 2011	46.2	5.4	5	40.3	6.7	4	2.7%	5.90 [-2.19, 13.99]
Gao 2013	55.1	7.846	19	54.9	7.1554	20	5.1%	0.20 [-4.52, 4.92]
Gao 2015	60	0.5	57	54	0.8	55	9.4%	6.00 [5.75, 6.25]
Ge 2006	58.6	9.9	10	56.3	3.5	10	3.6%	2.30 [-4.21, 8.81]
Grajek 2010	49.95	7.9	27	44.4	11.74	12	3.1%	5.55 [-1.73, 12.83]
Hare 2009	56.9	10.31	34	56.1	5.8	19	5.5%	0.80 [-3.54, 5.14]
Huikuri 2008	60	8	39	56	10	38	5.8%	4.00 [-0.05, 8.05]
Kaminek M 2010	46	9	37	43	10	36	5.5%	3.00 [-1.37, 7.37]
Kim SH 2018	45	4.2	14	44.5	2.3	12	7.6%	0.50 [-2.06, 3.06]
Lee 2014	50	8.4	30	50.4	9.4	28	5.2%	-0.40 [-5.00, 4.20]
Roncalli 2011	39.1	10.2	48	41.5	8.8	44	6.0%	-2.40 [-6.28, 1.48]
Srimahachota S 2011	38	9.4	11	42	8.7	12	3.1%	-4.00 [-11.42, 3.42]
Wen X 2012	44	2.6	17	38.6	3.7	21	8.2%	5.40 [3.39, 7.41]
Zhang 2021	62	6.8	18	59.5	5.6	19	5.8%	2.50 [-1.53, 6.53]
Subtotal (95% CI)			**466**			**419**	**96.3%**	**2.71 [1.13, 4.29]**
Heterogeneity: Tau² = 6.46; Chi² = 72.90, df = 18 (P < 0.00001); I² = 75%								
Test for overall effect: Z = 3.37 (P = 0.0008)								
1.15.2 > 500 million								
Penicka 2007	45	9	14	47	7	10	3.7%	-2.00 [-8.41, 4.41]
Subtotal (95% CI)			**14**			**10**	**3.7%**	**-2.00 [-8.41, 4.41]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 0.61 (P = 0.54)								
Total (95% CI)			**480**			**429**	**100.0%**	**2.53 [0.95, 4.10]**
Heterogeneity: Tau² = 6.87; Chi² = 78.57, df = 19 (P < 0.00001); I² = 76%								
Test for overall effect: Z = 3.14 (P = 0.002)								
Test for subgroup differences: Chi² = 1.96, df = 1 (P = 0.16), I² = 48.9%								



Supplementary Fig. 7H. Forest plot showing subgroup analysis of the efficacy of stem cell therapy on left ventricular ejection fraction (LVEF) at the end of the study, compared with control, stratified by administered dose. LVEF was measured using echocardiography.