Glucagon-like peptide-1 mimetics, optimal for Asian type 2 diabetes patients with and without overweight/obesity: meta-analysis of randomized controlled trials

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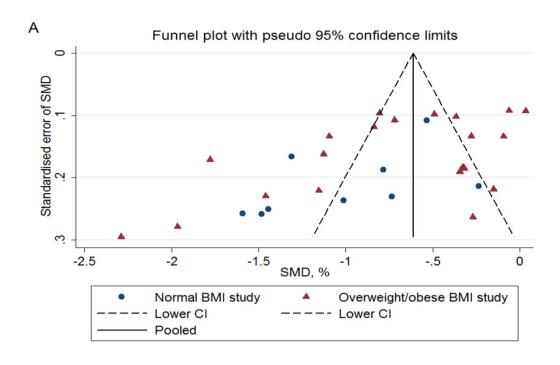
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Table S1. Risk of bias assessment for the included studies

study	Random sequence generation	Allocation concealment	Blinding of participants and personnel	Blinding outcome assessment	Incomplete outcome data	Selective reporting	Other bias
Araki et al. 2015 [17]	low risk	low risk	high risk	high risk	low risk	low risk	
Xu et al. 2014 [24]	low risk	unclear	high risk	high risk	low risk	low risk	low risk
Chen et al. 2017 [18]	low risk	low risk	low risk	low risk	low risk	low risk	low risk
Gao et al. 2009 [25]	low risk	unclear	low risk	low risk	low risk	low risk	low risk
Inagaki et al. 2012 [26]	low risk	low risk	high risk	high risk	low risk	low risk	low risk
Kadowaki et al. 2011 [27]	low risk	low risk	low risk	low risk	low risk	low risk	low risk
Kadowaki et al. 2009 [38]	low risk	unclear	low risk	low risk	low risk	low risk	low risk
Kaku et al. 2010 [39]	low risk	unclear	low risk	low risk	low risk	low risk	low risk
Ke et al. 2015 [13]	low risk	unclear	high risk	high risk	high risk	low risk	low risk
Li et al. 2012 [28]	low risk	unclear	high risk	high risk	high risk	low risk	low risk
Li et al. 2014 [29]	low risk	unclear	low risk	low risk	low risk	low risk	low risk
Miyagawa et al. 2015 [30]	low risk	low risk	low risk	low risk	low risk	low risk	low risk
Seino et al. 2012 [31]	low risk	unclear	low risk	low risk	low risk	low risk	low risk
Seino et al. 2016 [32]	low risk	unclear	low risk	low risk	low risk	low risk	low risk
Shi et al. 2017 [14]	low risk	unclear	high risk	high risk	high risk	low risk	low risk
Takeshita et al. 2015 [33]	low risk	low risk	high risk	high risk	high risk	low risk	low risk
Tanaka et al. 2015 [15]	low risk	unclear	high risk	high risk	high risk	low risk	low risk
Terauchi et al. 2014 [19]	low risk	unclear	low risk	low risk	low risk	low risk	low risk
Yang et al. 2011 [34]	low risk	unclear	low risk	low risk	high risk	low risk	low risk
Yoon et al. 2017 [16]	low risk	unclear	high risk	high risk	low risk	low risk	low risk

Table S1. Continued

Study	Random sequence generation	Allocation concealment	Blinding of participants and personnel	Blinding outcome assessment	Incomplete outcome data	Selective reporting	Other bias
Pan et al. 2014 [35]	low risk	unclear	low risk	low risk	low risk	low risk	low risk
		uncieai			IOW 118K	IOW 118K	
Yuan et al. 2012 [36]	low risk	unclear	high risk	high risk	low risk	low risk	low risk
Zang et al. 2016 [37]	low risk	low risk	high risk	high risk	low risk	low risk	low risk
Inoue et al. 2015 [20]	unclear	unclear	high risk	high risk	low risk	low risk	low risk
Onishi et al. 2015 [21]	unclear	low risk	low risk	low risk	low risk	low risk	low risk
Seino et al. 2010 [22]	low risk	unclear	low risk	low risk	low risk	low risk	low risk
Seino et al. 2008 [23]	low risk	low risk	low risk	low risk	low risk	low risk	low risk
Ji et al. 2013 [12]	low risk	unclear	high risk	high risk	low risk	low risk	low risk



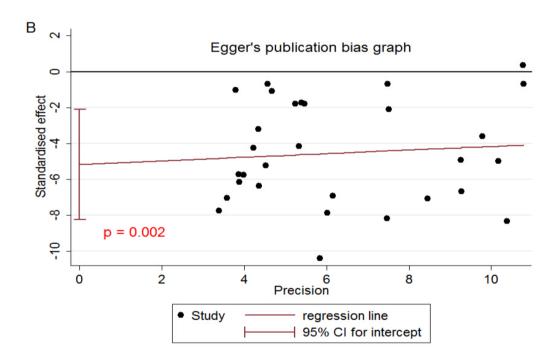
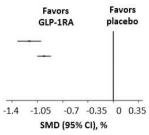


Fig. S1. Funnel plot and Egger's test graph of HbA1c change in meta-analysis. (A) Funnel plot; (B) Egger's test graph. *Studies with subgroups of diverse-dose GLP-1RA treatments or varied controlled agents were divided into respective comparison pairs: each pair included only one dose GLP-1RA versus one controlled comparator.

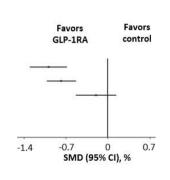
A Substant	Study numbers	Particiț numb Liraglutide	ers	HbA1c SMD difference, % (95% CI)	l², %		Favors Liraglutide	Favors control
Subgroup Normal BMI studies	4	570	303	-0.96 (-1.33, -0.59)	84.6	-		
Overweight/obese BMI studies	9	1159	920	-0.62 (-0.97, -0.26)	94.1			
Difference				0.35 (-0.23, 0.93) p for difference = 0.770		-1.4	-0.7 SMD (95% CI), 9	0 0.7
В	Study numbers	Participant GLP-1RA	numbers Placebo	HbA1c SMD difference, % (95% CI)	l², %		Favors	Favors

Study	Study Participant numbers		HbA1c SMD difference, %	l², %
numbers	GLP-1RA	Placebo	(95% CI)	1,70
4	372	217	-1.16 (-1.32, -1.00)	58.0
8	1154	946	-0.96 (-1.05, -0.87)	91.1
			0.05 (-0.58, 0.48)	
			p for difference = 0.834	
	numbers 4	numbers GLP-1RA	numbers GLP-1RA Placebo 4 372 217	HBALCSMD difference, % (95% CI) GLP-1RA Placebo (95% CI) 4 372 217 -1.16 (-1.32, -1.00) 8 1154 946 -0.96 (-1.05, -0.87) 0.05 (-0.58, 0.48)



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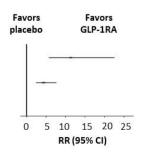
_	Study	udy Participant numbers		HbA1c SMD difference, %	l², %
	numbers	GLP-1RA	Control	(95% CI)	1,70
Subgroup					
Normal BMI studies	6	683	394	-0.99 (-1.30, -0.69)	82.3
Overweight BMI studies	14	2244	1980	-0.78 (-1.02, -0.54)	93.3
Obese BMI studies	2	75	68	-0.20 (-0.53, 0.13)	0.0
		p fo	r difference	e among three groups = 0.130)



D	Study	num	cipant ibers	RR of HbA1c < 7.0 % target achievement	l², %
	numbers	GLP-1RA	Placebo	(95% CI)	
Subgroup					
Normal BMI studies	4	367	216	4.08 (2.49, 6.69)	55.9
Overweight/obese BMI studies	8	1135	935	5.23 (2.91, 9.43)	90.5
				p for difference = 0.648	

Favors placebo	Favors GLP-1RA	
		-
0	5 RR (95% CI)	10

E	Study	num	cipant nbers	RR of HbA1c < 6.5 % target achievement	l², %
	numbers	GLP-1RA	Placebo	(95% CI)	
Subgroup					
Normal BMI studies	3	335	177	11.34 (5.73, 22.46)	0.0
Overweight/obese BMI studies	7	1070	900	4.30 (2.46, 7.53)	73.7
				p for difference = 0.051	



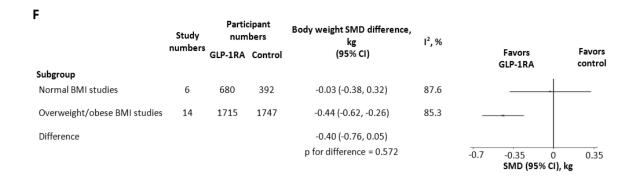


Fig. S2. Comparisons between normal BMI Asian studies and overweight/obese BMI Asian studies in (A) HbA1c change in liraglutide research, (B) HbA1c change in placebo-controlled studies, (C) HbA1c change in three BMI groups, (D) relative risk of HbA1c < 7.0% target achievement in placebo-controlled research, (E) relative risk of HbA1c < 6.5% target achievement in placebo-controlled research and (F) body weight change. BMI, body mass index; GLP-1RA, glucagon-like peptide-1 receptor agonist; SMD, standardized mean difference; CI, confidence interval; RR, relative risk.

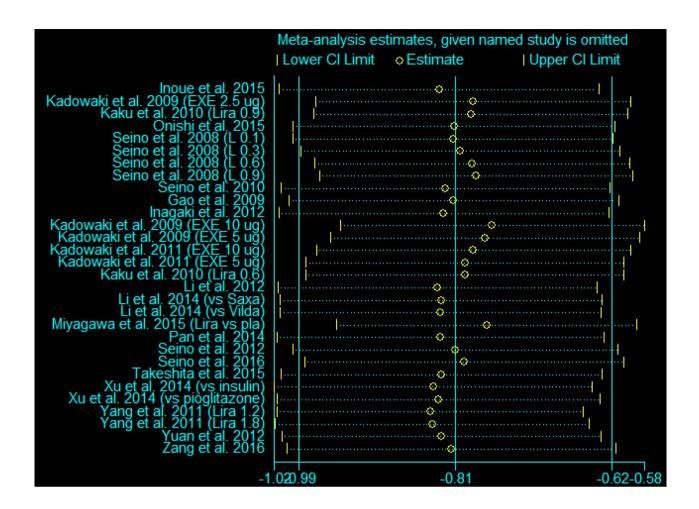


Fig. S3. Sensitivity analysis of studies included HbA1c change in meta-analysis.