Supplemental data

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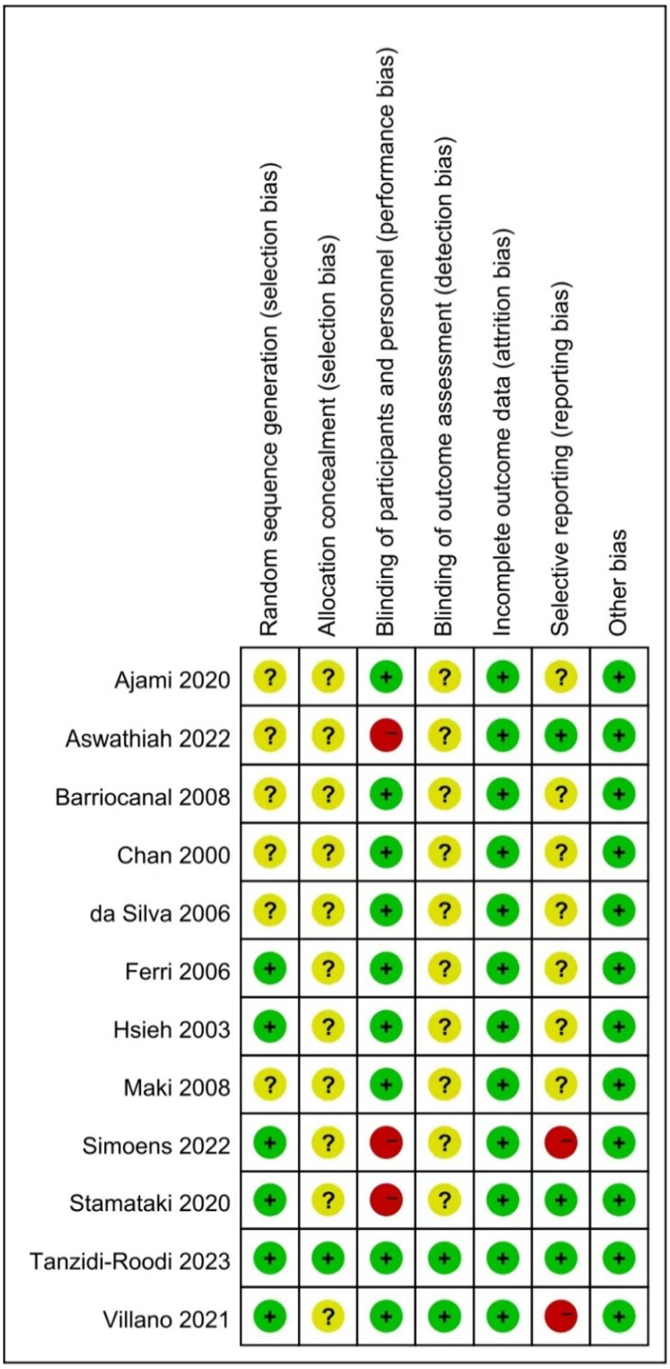
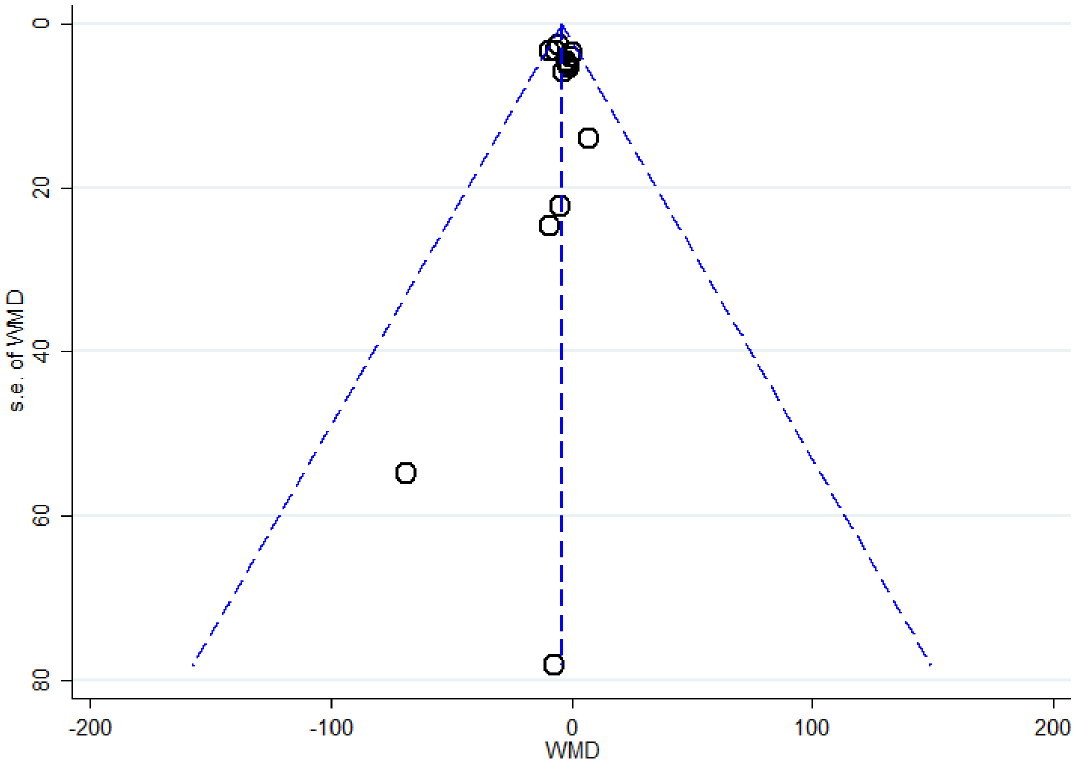
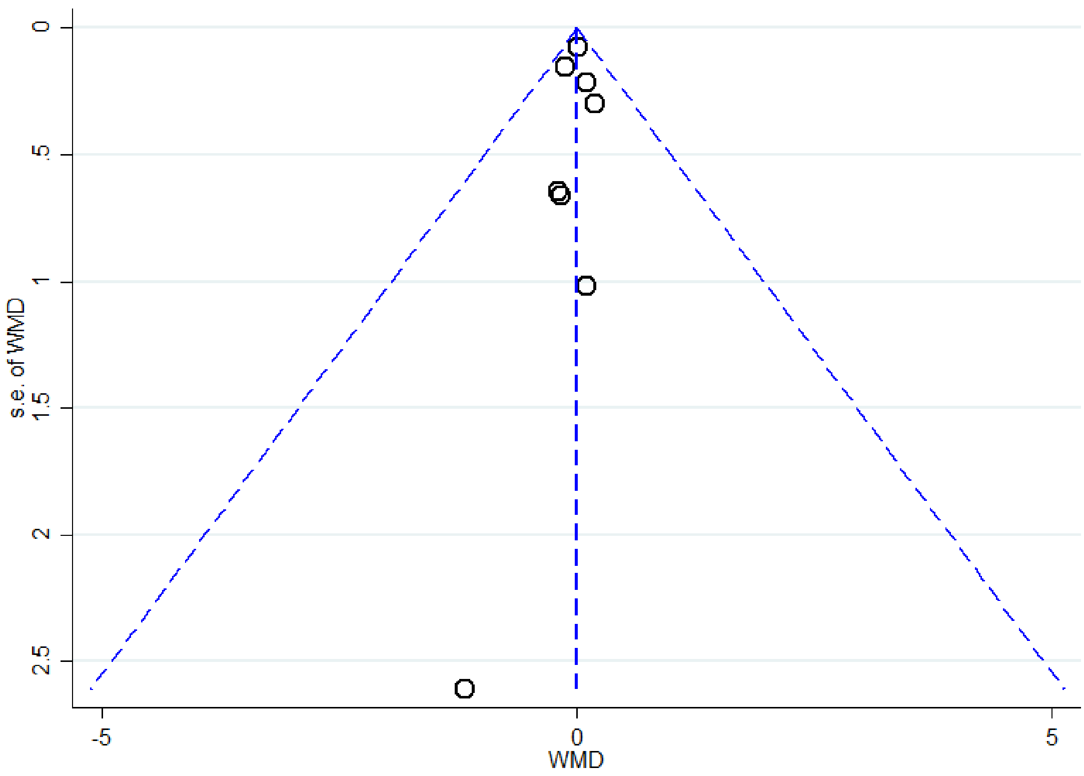
eFigure 1. Risk of bias summary about risk of bias assessment for each included trial



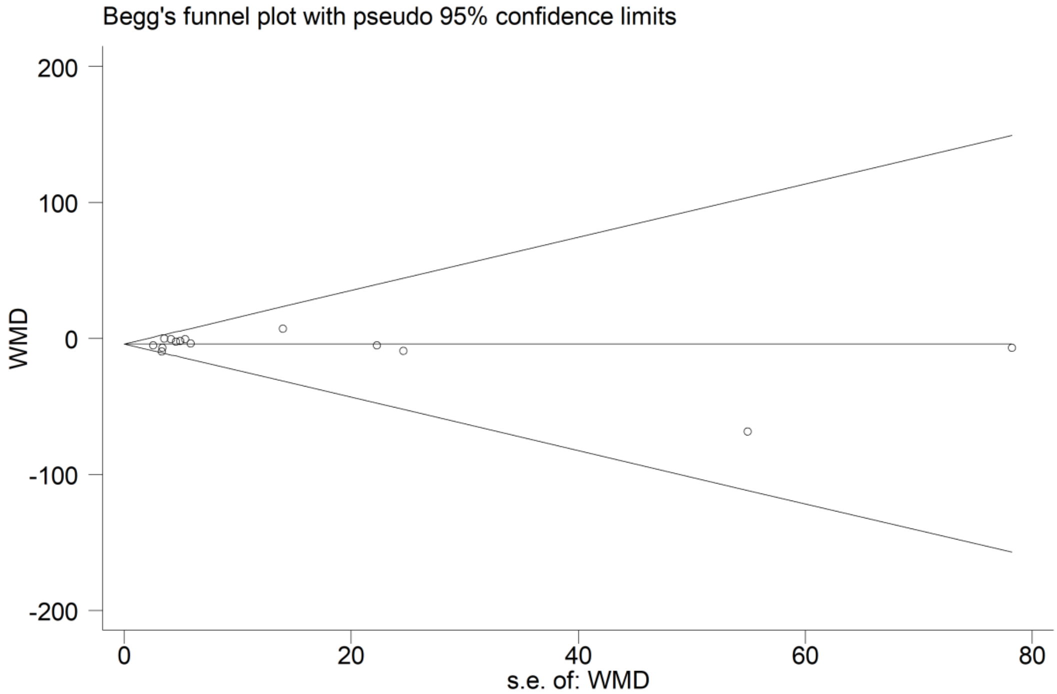
eFigure 2. Funnel plot to assess publication bias for effect of SGs on FBG



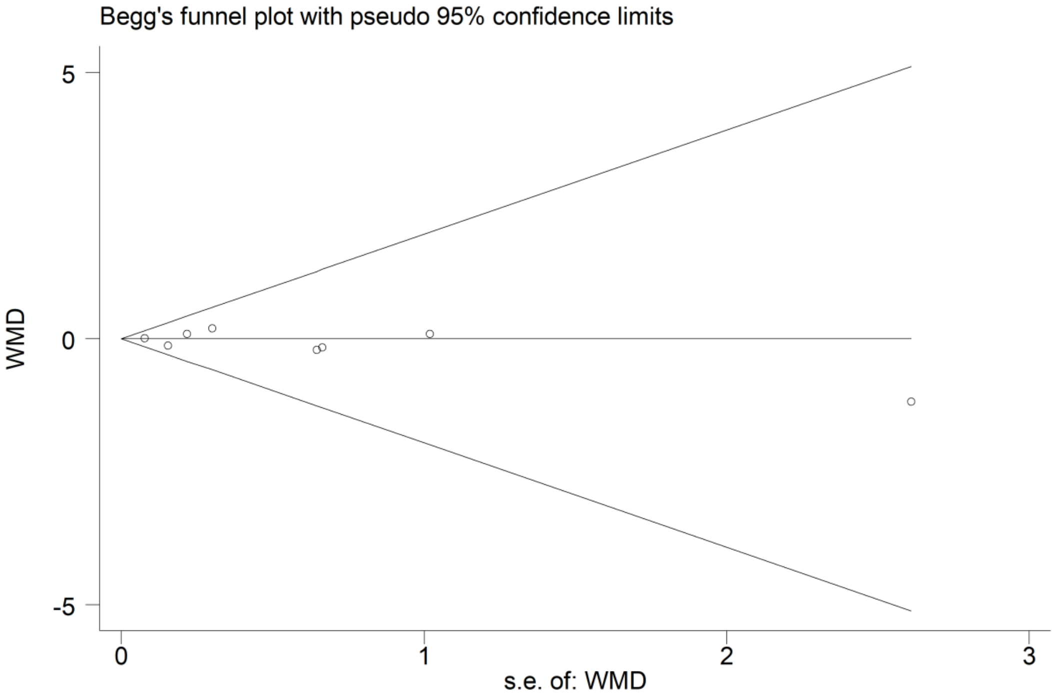
eFigure 3. Funnel plot to assess publication bias for effect of SGs on HbA1c



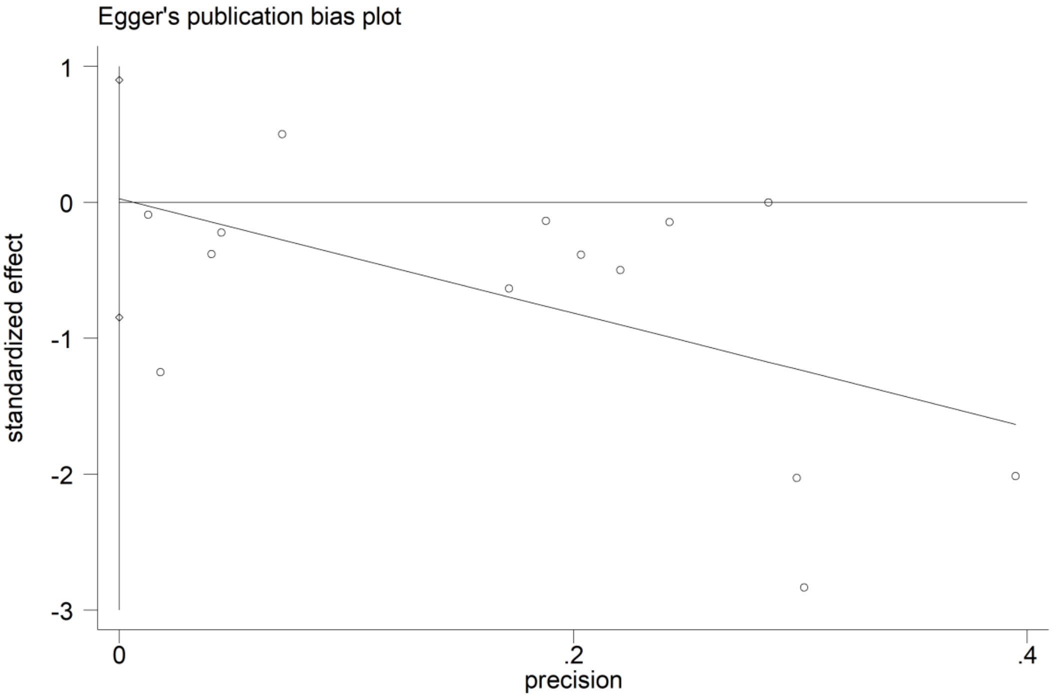
eFigure 4. Begg's rank correlation to assess publication bias for effect of SGs on FBG



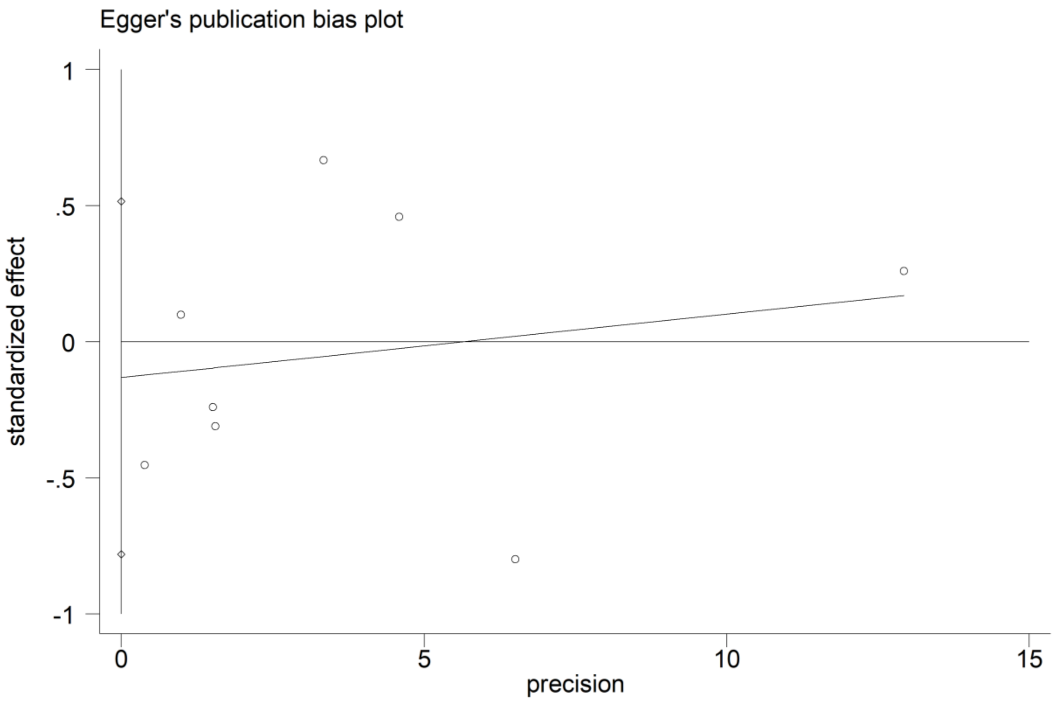
eFigure 5. Begg's rank correlation to assess publication bias for effect of SGs on HbA1c



eFigure 6. Egger's regression tests to assess publication bias for effect of SGs on FBG

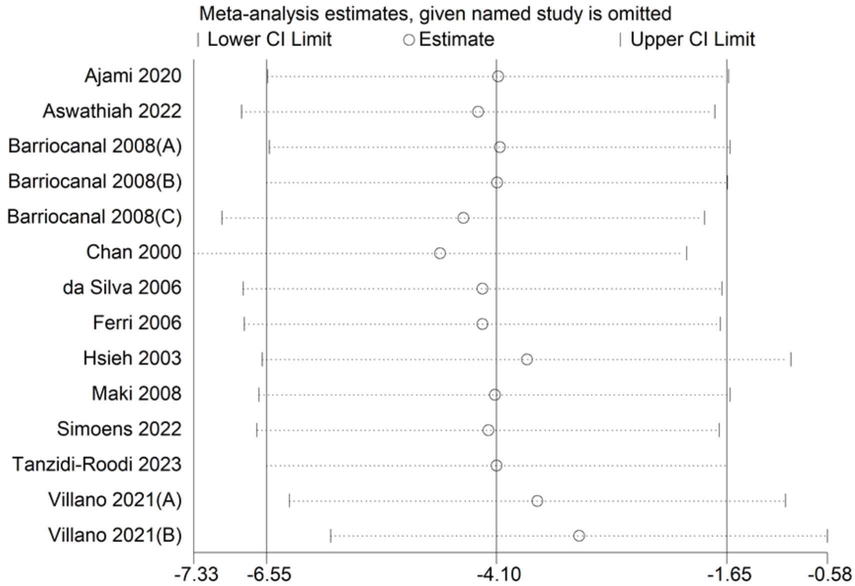


eFigure 7. Egger's regression tests to assess publication bias for effect of SGs on HbA1c

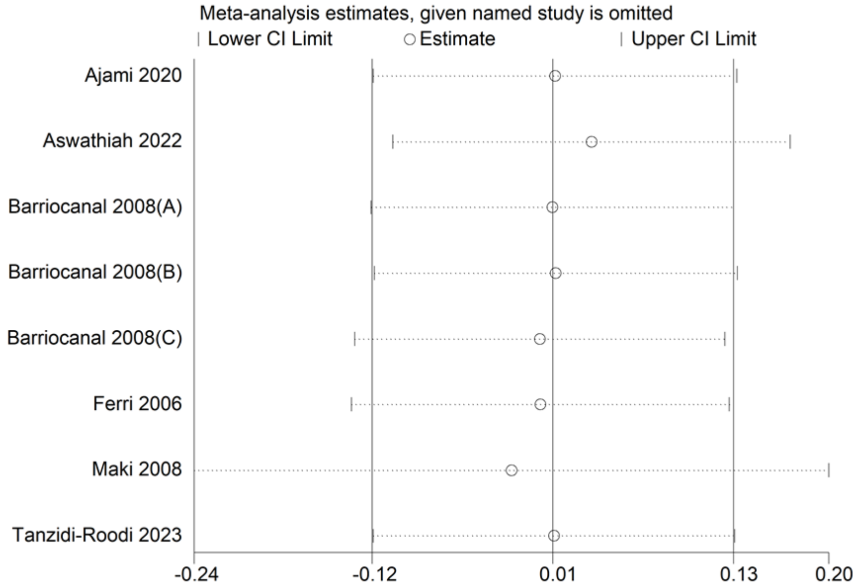


eFigure 8. Plots of leave-one-out sensitivity analyses for effect of SGs on FBG (A) and HbA1c (A)

(A)



(B)



eTable 1. Detailed search strategies used for the database search

Pubmed		
Step	**Detailed Search strategies**	**No. of records**
#1	"Stevia"[Mesh]	622
#2	Stevia*[Title/Abstract]	1,133
#3	"steviol" [Supplementary Concept]	235
#4	"stevioside" [Supplementary Concept]	463
#5	"rebaudioside A" [Supplementary Concept]	171
#6	Sweetleaf*[Title/Abstract]	8
#7	"Eupatorium rebaudianum*"[Title/Abstract]	1
#8	"steviol glycoside*"[Title/Abstract]	477
#9	"Diabetes Mellitus"[Mesh]	512,937
#10	"Blood Glucose"[Mesh]	184,070
#11	"blood sugar*"[Title/Abstract]	17,145
#12	"Blood Glucose"[Title/Abstract]	88,016
#13	"Diabetes Mellitus"[Title/Abstract]	261,722
#14	"Insulin"[Mesh]	200,036
#15	Insulin[Title/Abstract]	410,515
#16	"Glucose Metabolism Disorders"[Mesh]	548,062
#17	Glucose Metabolism[Title/Abstract]	45,099
#18	Glucose Metabolic[Title/Abstract]	2,160
#19	#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8	1,508
#20	#9 OR #10 OR #11 OR #12 OR #13	726,894
#21	#14 OR #15 OR #16 OR #17 OR #18	817,530
#22	#20 OR #21	1,016,068
#23	#19 AND #22	193
Embase		
#1	'stevia'/exp	1,0591
#2	stevia*:ti,ab,kw	1,148
#3	steviol:ti,ab,kw	514
#4	stevioside:ti,ab,kw	577
#5	'rebaudioside a':ti,ab,kw	308
#6	sweetleaf*:ti,ab,kw	5
#7	'eupatorium rebaudianum*':ti,ab,kw	0
#8	'steviol glycoside*':ti,ab,kw	370
#9	'diabetes mellitus'/exp	1,119,858
#10	'blood glucose'/exp	286,648
#11	'blood sugar*':ti,ab,kw	1,898
#12	'blood glucose':ti,ab,kw	118,661
#13	'diabetes mellitus':ti,ab,kw	329,998
#14	'insulin'/exp	354,151
#15	insulin:ti,ab,kw	497,269

#16	'glucose metabolism disorders'/exp	1,351,100
#17	'glucose metabolism':ti,ab,kw	53,531
#18	'glucose metabolic':ti,ab,kw	2,545
#19	#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8	1,732
#20	#9 OR #10 OR #11 OR #12 OR #13	1,283,317
#21	#14 OR #15 OR #16 OR #17 OR #18	1,595,240
#22	#20 OR #21	1,681,484
#23	#19 AND #22	377
Web of Science		
#1	Stevia (topic) or Stevia* (topic) or steviol (topic) or stevioside (topic) or rebaudioside A (topic) or Sweetleaf* (topic) or Eupatorium rebaudianum* (topic) or steviol glycoside* (topic)	3,875
#2	Insulin (topic) or Glucose Metabolism Disorders (topic) or Glucose Metabolism (topic) or Glucose Metabolic (topic)	713,504
#3	Diabetes Mellitus (topic) or Blood Mellitus (topic) or blood sugar* (topic) or Blood Glucose (topic)	506,677
#4	#2 OR #3	1,006,297
#5	#1 AND #4	394

eTable 2. Summary of findings for effect of SGs on glucose metabolism

Outcomes	No. of participants (studies)	Quality of the evidence		Anticipated absolute effects	
		Overall quality assessment	Assessment of each domain	Risk with control group	Risk difference with SGs[1] group
FBG[2] (mg/dl)	843 (11 studies)	⊕⊕◯◯ Low[3]	Risk of bias: high risk Inconsistency: low risk Indirectness: low risk Imprecision: high risk Publication bias: low risk	Ranging from -12.4 to 79 mg/dl	MD **4.1 lower** (6.55 lower to 1.65 lower)
HbA1c[4] (%)	336 (5 studies)	⊕⊕◯◯ Low[3]	Risk of bias: high risk Inconsistency: low risk Indirectness: low risk Imprecision: high risk Publication bias: low risk	Ranging from -0.1% to 5.89%	MD **0.01 higher** (0.12 lower to 0.13 higher)

***The risk in the intervention group** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI). **CI:** Confidence interval; **MD:** Mean difference
GRADE Working Group grades of evidence **High quality:** We are very confident that the true effect lies close to that of the estimate of the effect **Moderate quality:** We are moderately confident in the effect estimate: The true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different **Low quality:** Our confidence in the effect estimate is limited: The true effect may be substantially different from the estimate of the effect **Very low quality:** We have very little confidence in the effect estimate: The true effect is likely to be substantially different from the estimate of effect

[1] SGs: steviol glycosides;

[2] FBG: fasting blood glucose;

[3] High risks of bias and imprecision of study results;

[4] HbA1c: glycated hemoglobin

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sugar replacer exhibits low glycemic response among human subjects, *Clin. Nutr. ESPEN*, 2019, **33**, 39-41.

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