

Supplementary Materials: Leptin Receptor Gene Polymorphism and the Risk of Cardiovascular Disease: A Systemic Review and Meta-Analysis

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Table S1. Search strategy. Source: PubMed (Searched on: October 9th, 2016).

#1 Leptin receptor[Title/Abstract]
#2 LEPR[title/abstract]
#3 OB-R[title/abstract]
#4 OB receptor[title/abstract]
#5 OBR[title/abstract]
#6 acute coronary syndromes
#7 myocardial infarction
#8 coronary artery disease
#9 coronary heart disease
#10 coronary disease
#11 ischemic heart disease
#12 cardiovascular disease
#13 stroke
#14 angina
#15 heart attack
#16 cerebrovascular*
#17 polymorphism
#18 Variant
#19 Variation
#20 genotype
#21 #1 OR #2 OR #3 OR #4 OR #5
#22 #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16
#23 #17 OR #18 OR #19 OR #20
#24 #21 AND #22 AND #23

Source: Embase (October 9th, 2016)

#1 Leptin receptor:ti,ab

#2 LEPR:ti,ab

#3 OB-R:ti,ab

#4 OB receptor:ti,ab

#5 OBR:ti,ab

#6 acute coronary syndromes

#7 myocardial infarction

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#16 cerebrovascular

#17 polymorphism

#18 variant

#19 variation

#20 genotype

#21 #1 OR #2 OR #3 OR #4 OR #5

#22 #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16

#23 #17 OR #18 OR #19 OR #20

#24 #21 AND #22 AND #23

Table S2. Quality assessment of the eligible studies (maximum score: 17).

First author, published year	Design bias	Selection bias	Information bias	Confounding	Analysis bias	Total
Abd El-Aziz, 2012	1	4	5	2	2	14
Aijälä, 2014	3	3	5	3	2	16
Bienertová-Vašku°, 2009	1	4	5	3	2	15
Elliott, 2009	3	4	5	3	2	17
Jin, 2015	1	4	5	2	2	14
Roszkowska- Gancarz, 2014	1	3	5	0	2	11
Tang, 2015	1	4	5	2	2	14

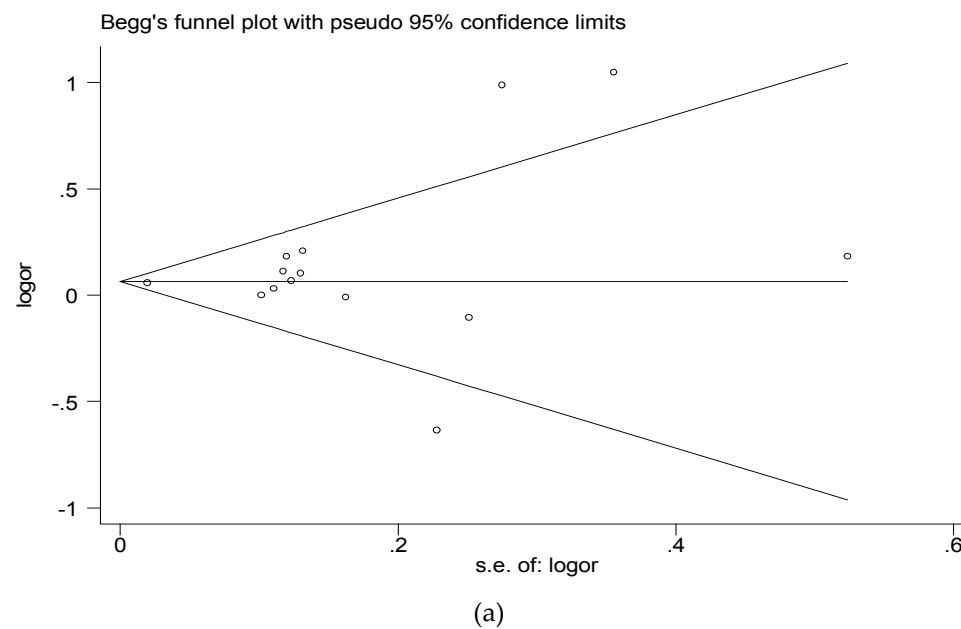
Selection column includes five items: (1) Design bias: study design and follow up; (2) Selection bias: inclusion/exclusion criteria, recruitment strategy, interval between exposure and outcome assessment, and attrition; (3) Information bias: pre-specified outcome, outcome assessment, reliability of the outcome, data collection and assessment, and exposure assessment; (4) Confounding: confounding adjustment; and (5) Analysis bias: effect size and data availability.

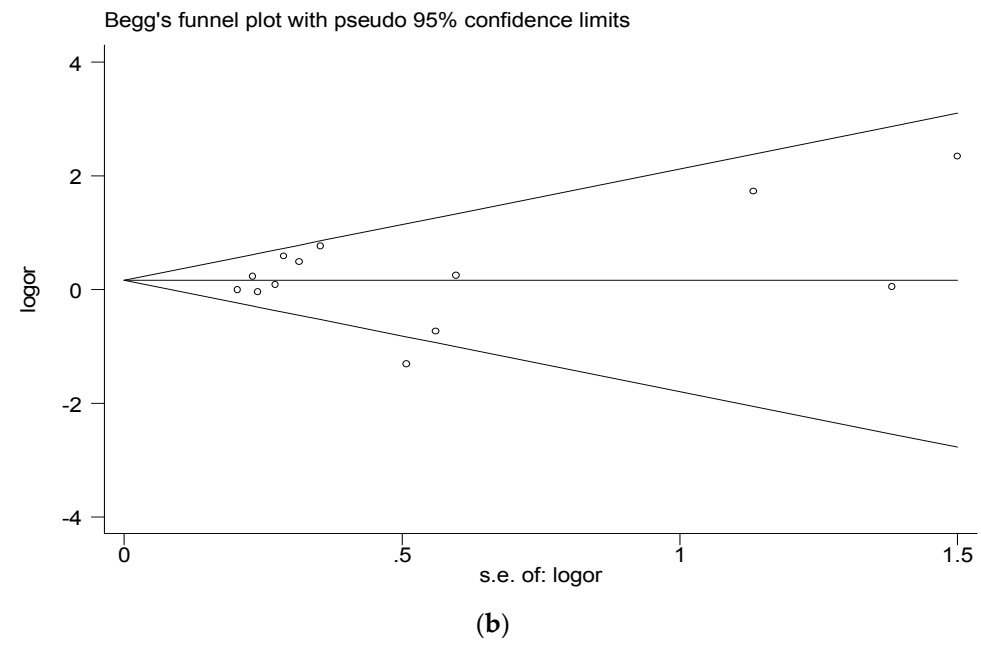
Table S3. Stratified analysis of the association between leptin receptor gene polymorphism and the risk of cardiovascular disease.

Outcome	Allelic	Homozygous		Dominant	
	Comparisons, No.	OR (95% CI)	Comparisons, No.	OR (95% CI)	Comparisons, No. OR (95% CI)
Total	14	1.10 (0.99, 1.22)	13	1.18 (0.89, 1.57)	13 1.11 (0.91, 1.36)
Ethnicity					
Caucasian	9	1.05 (0.95, 1.17)	9	1.19 (0.90, 1.57)	9 1.12 (0.92, 1.36)
Asian	4	1.71 (0.90, 3.26)	4	1.74 (0.37, 8.23)	4 1.28 (0.42, 3.85)
Mixed	1	1.06 (1.02, 1.10)	-	-	- -
P-value for difference		0.407		0.936	0.799
Study design					
Case-control	9	1.31 (0.89, 1.43)	9	1.05 (0.68, 1.61)	9 0.95 (0.75, 1.21)

Cohort	5	1.07 (1.03, 1.11)	4	1.35 (0.93, 1.96)	4	1.39 (1.08, 1.79)
P-value for difference		0.991		0.443		0.078
Disease type						
Heart disease	11	1.06 (0.99, 1.13)	10	1.13 (0.85, 1.50)	10	1.09 (0.89, 1.33)
Stroke	3	2.42 (1.60, 3.65)	3	3.97 (0.90, 17.49)	3	1.92 (0.68, 5.40)
P-value for difference		0.003		0.185		0.486

OR, odd ratio; CI, confidence interval





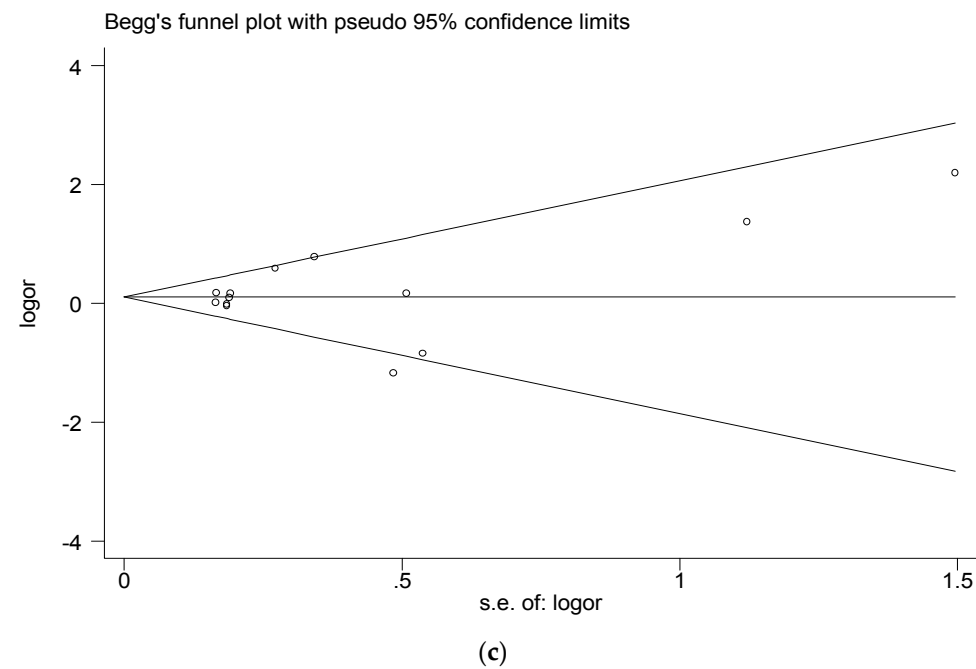


Figure S1. Funnel plot for the analysis of the association between leptin receptor gene polymorphism and the risk of cardiovascular disease under three models: (a) Allelic, (b) Homozygous, and (c) Dominant.



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