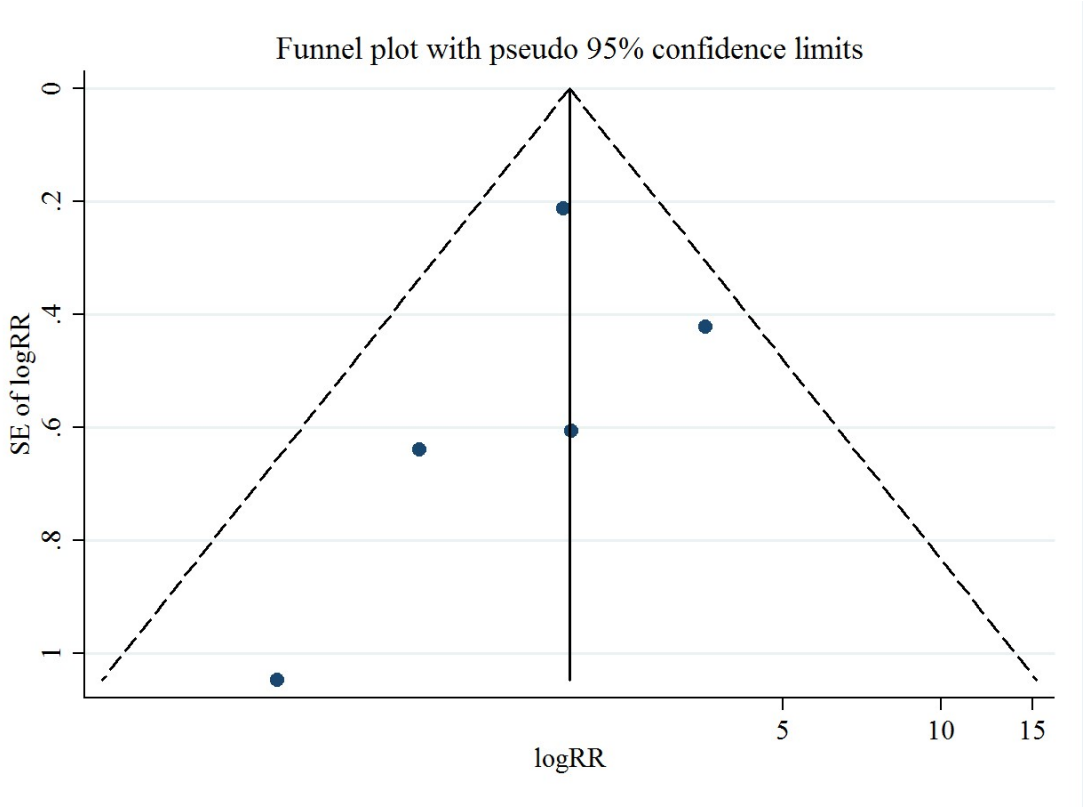

Figure S1. Funnel Plot for Studies Evaluating the Association between Obstructive Sleep Apnea and Stroke.

Note that there was no evidence of publication bias.

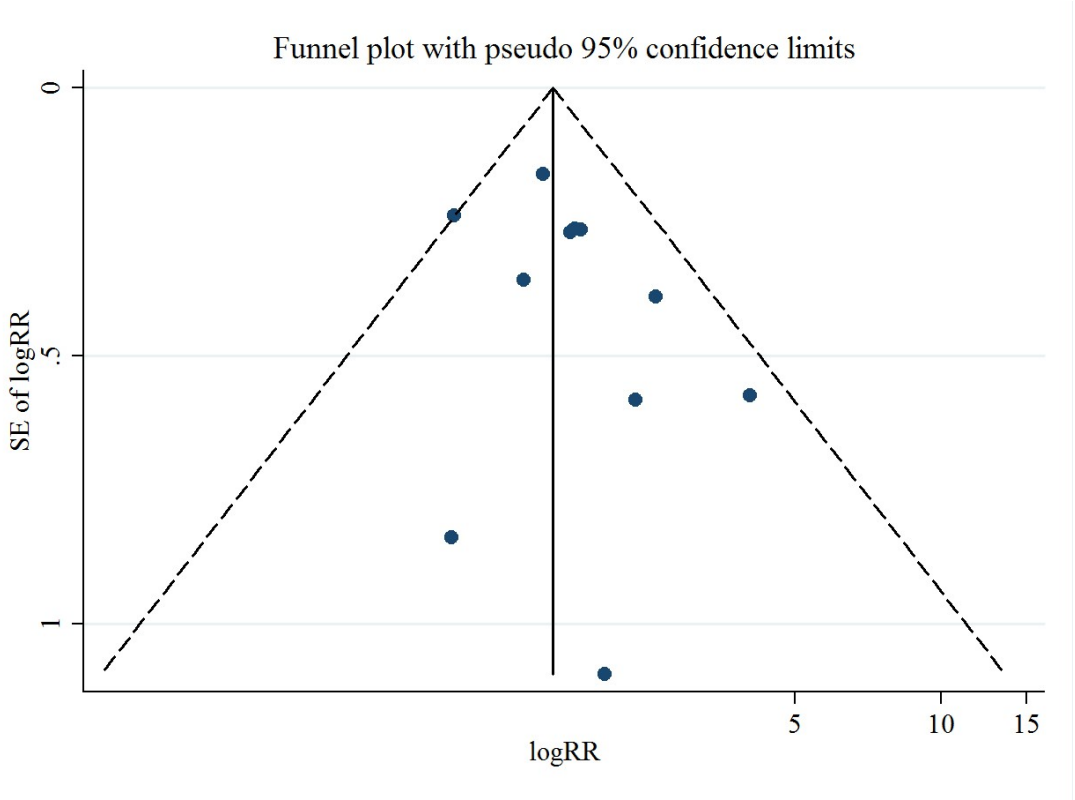

Figure S2. Funnel Plot for Studies Evaluating the Association between Obstructive Sleep Apnea and All-cause Mortality.

Note that there was no evidence of publication bias.

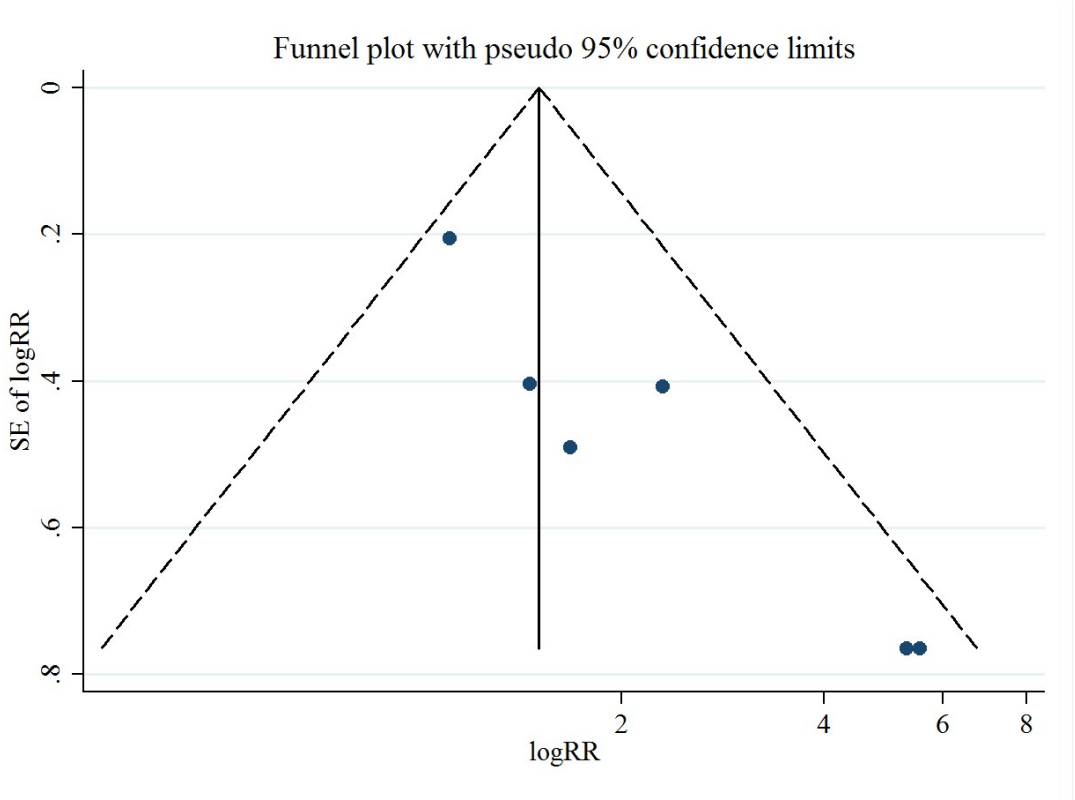

Figure S3. Funnel Plot for Studies Evaluating the Association between Obstructive Sleep Apnea and Ischemic Heart Disease.

Note that there was some evidence of publication bias.

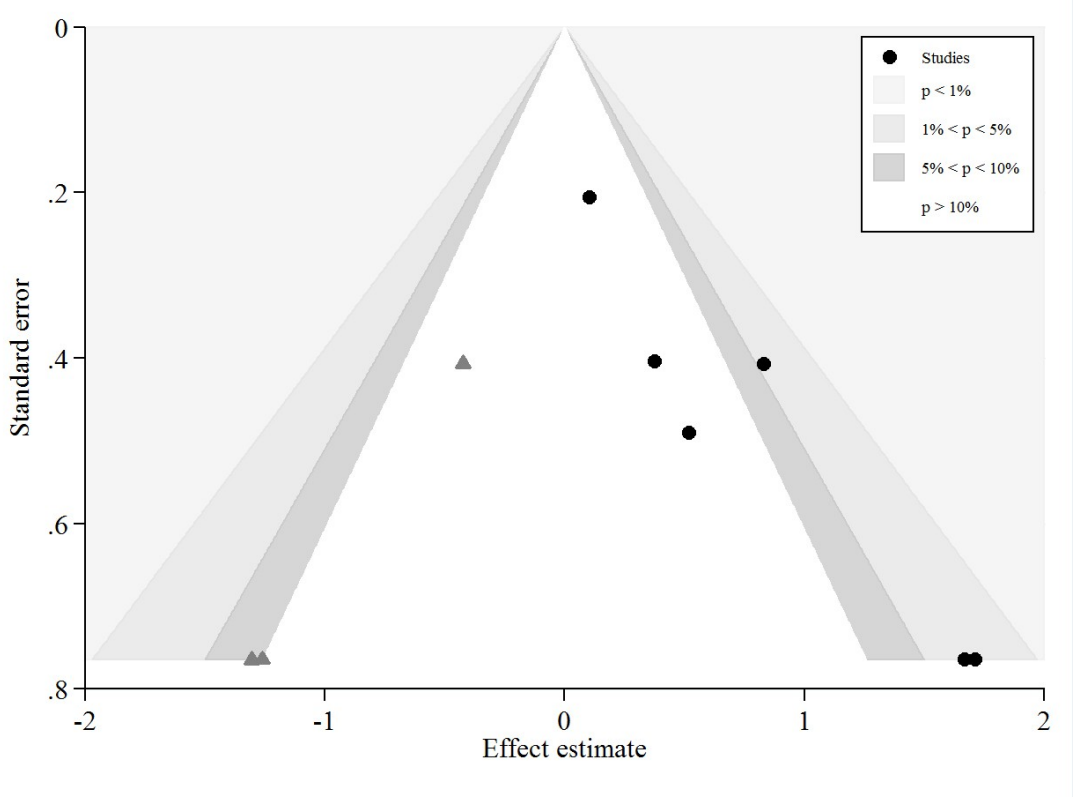

Figure S4. Contour-enhanced Funnel Plot for Studies Evaluating the Association between Obstructive Sleep Apnea and Ischemic Heart Disease.

Note that three supposed missing studies were in areas of statistical nonsignificance (*P*>.05) and relative risk <1.

Table S1. Inclusion and Exclusion Criteria and Event Ascertainment of Included Cohort Studies

Study	Patient selection	Exclusion criteria	Event ascertainment
Bassetti et al.	Consecutive patients with acute IS.	>1 week after stroke onset, sopor/coma, cardiac, or respiratory insufficiency.	A structured telephone interview.
Lee et al.	Patients with a first MI and underwent a primary PCI.	Known OSA, intubation mechanical ventilation, electrical instability with ventricular arrhythmia, cardiogenic shock, previous revascularization, no informed consent, or not tolerate the sleep study.	Telephone calls and/or clinic chart reviews.
Martinez-Garcia et al.	Consecutive patients with acute IS.	Early death (<2 months), or absence of a sleep study.	Computer database on hospital admissions, visits to the emergency room or primary care visits, telephone patients' relatives, and an additional medical visit if necessary.
Mehra et al.	Consecutive patients with ACS.	Inadequate sleep studies, declined participation, OSA receiving treatment, delirium/dementia, or hemodynamic instability.	Veterans Administration computerized patient information system as well as the social security death index.
Nakashima et al.	Consecutive patients with MI and underwent primary PCI.	In-hospital death, inadequate sleep studies, no informed consent, central sleep apnea, or no follow-up results.	Telephone interviews, reviews of medical records, and mail patients' attending physician.
Parra et al.	Consecutive patients with a first stroke or TIA.	Refused to participate.	Structured telephone interview and medical records.
Peker et al.	Consecutive patients requiring intensive care for angina and/or MI.	In-hospital death, development of severe cardiac failure or stroke at the study start or after discharge from the hospital, or refused to participate.	Hospital records and the National Cause of Death Registry in Sweden as well as telephone interviews with the closest relative.
Rola et al.	Patients admitted for a first IS or TIA, and without previously diagnosed OSA.	Significant reduction of consciousness, symptoms of severe neurological deficit, aphasia, history of significant heart failure, or dementia.	Medical database system with subsequent phone interviews with the patient, caregiver, or family member.
Sahlin et al.	Consecutive patients admitted for stroke rehabilitation.	Early death (<3 weeks), refused to participate, or failure in the sleep apnea recordings.	The Causes of Death Register at the Swedish National Board of Health and Welfare.
Turkington et al.	Patients with stroke occurred in the previous 24 hours.	Stroke admissions to these wards where nursing staff were not familiar with the monitoring equipment.	A standard questionnaire completed by patients' carer via mail or telephone.
Valham et al.	A random sample of CAD patients.	Refused to participate, or technical failures in respiratory monitoring.	Swedish Hospital Discharge Register and Hospital records, death certificates, or autopsy reports.
Won et al.	Consecutive IHD patients and/or a history of myocardial injury.	AHI≤5, or missing clinical information.	Veterans Administration records and the Social Security Death Index.
Yumino et al.	Consecutive ACS patients underwent primary PCI.	Cardiogenic shock, New York Heart Association functional class III/IV heart failure, or sleep apnea of the central type.	Reviews of all medical records and confirmed by direct interviews with patients.

Abbreviation: IS, ischemic stroke; OSA, obstructive sleep apnea; ACS, acute coronary syndrome; MI, myocardial infarction; PCI, percutaneous coronary intervention; TIA, transient ischemic attack; CAD, coronary artery disease; IHD, ischemic heart disease; AHI, apnea-hypopnea index.

Table S2. Data Extraction of Three Cohort Studies to Evaluate the Effect of Continuous Positive Airway Pressure (CPAP) on Adverse Outcomes

Study	Patients	CPAP treatment, n		Outcomes		RR/HR (95% CI) for CPAP treatment
		Compliant	Noncompliant	Compliant	Noncompliant	
Martinez-Garcia et al.	Stroke patients with AHI ≥20	28	68	5 CVD events	26 CVD events	RR: 0.47 (0.20–1.09)
Nakashima et al.	IHD patients with AHI ≥20	56	39	5 ACS events	9 ACS events	RR: 0.39 (0.14–1.07)
Won et al.	IHD patients with AHI ≥5	114	92	32 deaths	33 deaths	Adjusted HR*: 0.38 (0.19–0.76)

Abbreviation: RR, relative risk; HR, hazard ratio; CI, confidence interval; AHI, apnea-hypopnea index; IHD, ischemic heart disease; CVD, cardiovascular disease; ACS, acute coronary syndrome.

*The adjusted risk factors were not clearly disclosed.