

This is the supplementary information of “Ankle–Brachial Index as a Predictor of Cardiovascular and Cerebrovascular Events in Hypertension: A Systematic Review” by: Hoda Borooghani, Kiana Orangi, Parmida Bagherzadi, Hoda Asefi, Mohsen Arabi (correspond)

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Table S1. Search Question

P (Population)	I (Intervention)	C (Comparison)	O (Outcome)
Adults with Hypertension	ABI index measuring	Normal and abnormal ABI (Abnormal include <0.8>1.4)	Cardiovascular, Cerebrovascular, and peripheral artery diseases

Table S2. MeSH terms

#1 Population	Hypertension"[Mesh] OR "Hypertensive"[Mesh]
#2 Intervention	Ankle Brachial Index"[Mesh]
#3 Outcome	"Myocardial Infarction"[Mesh] OR "Acute Coronary Syndrome"[Mesh] OR "Stroke" [Mesh] OR "Infarction"[Mesh] OR "Ischemic Attack, Transient" [Mesh] OR "Heart Failure"[Mesh] OR "Coronary Artery Disease"[Mesh]

Table S3. Search strategy used for Pubmed/Medline, Scopus, and Web of Science (Date: 4.27.2025).

Search	Query	Results
Pubmed/Medline:		
#1	"Ankle Brachial Index"[Mesh] OR "ABI"[TIAB]	12,069
#2	"Hypertension"[Title] OR "Hypertensive"[Title] OR "High blood pressure" [Title]	234,975
#3	"Cardiovascular Events"[All Fields] OR "Major Adverse Cardiovascular Events"[All Fields] OR "Myocardial Infarction"[Mesh] OR "Heart Attack" [TIAB] OR "Acute Coronary Syndrome"[Mesh] OR "Stroke" [Mesh] OR "Brain Infarction" OR "Infarction"[Mesh] OR "Ischemic Attack, Transient" [Mesh] OR "Heart Failure"[Mesh] OR "Cardiac Failure"[All Fields] OR "Coronary Artery Disease"[Mesh]	692,907
#4	#1 AND #2 AND #3	51
Scopus:		
#1	((TITLE-ABS-KEY (ankle AND brachial AND index) OR TITLE-ABS-KEY (abi))) AND ((TITLE (hypertension) OR TITLE (hypertensive) OR TITLE (high AND blood AND pressure))) AND ((ALL (cardiovascular AND events) OR ALL (major AND adverse AND cardiovascular AND event) OR TITLE-ABS-KEY (myocardial AND infarction) OR TITLE-ABS (heart AND attack) OR TITLE-ABS-KEY (acute AND coronary AND syndrome) OR ALL (stroke) OR ALL (brain AND infarction) OR TITLE-ABS-KEY (infarction) OR TITLE-ABS-KEY (transient AND ischemic AND attack) OR ALL (heart AND failure) OR ALL (cardiac AND failure) OR TITLE-ABS-KEY (coronary AND artery AND disease) OR TITLE-ABS-KEY (angina) OR TITLE-ABS-KEY (peripheral AND arterial AND disease))))	575
Web of Science*:		
#1	(((((TI=(Cardiovascular Events)) OR TI=(Myocardial Infarction)) OR TI=(Acute Coronary Syndrome)) OR AB=(Stroke)) OR TI=(Stroke)) OR TI=(Brain Infarction)) OR TS=(Brain Infarction)) OR AB=(Transient Ischemic Attack)) OR TI=(Transient Ischemic Attack)	633,833
#2	((TS=(Ankle Brachial Index)) OR TI=(Ankle Brachial Index)) OR AK=(Ankle Brachial Index)	10,512
#3	((TI=(Hypertension)) OR TI=(Hypertensive)) OR TS=(High blood pressure)) OR TI=(High blood pressure)	487,075
#5	#1 AND #2 AND #3	210

Table S4. Quality assessment of included studies, using the modified Newcastle–Ottawa Scale (maximum 10 points). Scores are shown for each domain and overall rating.

Title	Representativeness	Sample Size	Non-Respondents / Missing Data	Ascertainment of Exposure	Comparability	Outcome Assessment	Statistical Test	Total Score	Overall Rating
Armas-Padrón et al. (2022)	1	0	0	2	1	1	1	6	Satisfactory
Farkas et al. (2022)	1	1	0	2	1	1	1	7	Good
Albuquerque et al.(2011)	0	0	0	2	0	1	1	4	Unsatisfactory
Myslinski et al. (2020)	1	0	0	2	0	1	1	5	Satisfactory
Tosun et al. (2019)	1	0	0	2	1	1	1	6	Satisfactory
Tao et al. (2024)	1	1	0	2	1	1	1	7	Good
Gómez-Marcos et al.(2011)	1	1	1	2	1	1	1	8	Good
Shi et al. (2021)	1	1	1	2	1	1	1	8	Good
Korhonen et al. (2010)	1	1	1	2	0	1	1	7	Good
Wei Zhou et al. (2023)	1	1	1	2	1	1	1	8	Good
Jiménez-Balado et al. (2022)	1	1	1	2	1	1	1	8	Good
Ramírez-Torres et al. (2023)	1	1	1	2	1	1	1	8	Good
Jin Sun et al. (2021)	1	1	1	2	1	1	1	8	Good
Vasan et al. (2022)	1	1	1	2	1	1	1	8	Good
Päivi E. Korhonen et al. (2009)	1	1	1	2	1	1	2	9	Very Good

Eka Prasetya Budi Mulia et al. (2018)	1	0	0	2	0	1	2	6	Satisfactory
Kazuomi Kario et al. (2020)	1	1	1	2	1	1	2	9	Very Good
Agnes Jager et al. (1999)	1	1	1	2	1	1	2	9	Very Good
YY Luo et al. (2007)	1	1	0	2	1	1	2	8	Good
Raphael Monteiro et al. (2012)	0	0	0	2	1	1	2	6	Satisfactory
Pedro Morillas et al. (2009)	1	1	0	2	1	1	2	8	Good
M Peng et al. (2023)	1	1	0	2	1	1	1	7	Good

Table S5. Risk of bias assessment by ROBINS-I tool.

Study	D1 Confounding	D2 Selection	D3 Exposure	D4 Deviations	D5 Missing	D6 Outcome	D7 Reporting	Overall RoB
Armas-Padrón et al. (2022)	Low	Low	Low	Low	Low	Low	No information	Low
Farkas et al. (2022)	Low	Moderate	Low	Low	Moderate	Low	No information	Moderate
Albuquerque et al.(2011)	Serious	Moderate	Low	Low	Moderate	Low	No information	Serious
Myslinski et al. (2020)	Moderate	Serious	Low	Low	Moderate	Low	No information	Serious
Tosun et al. (2019)	Serious	Moderate	Low	Low	Moderate	Low	No information	Serious
Tao et al. (2024)	Low	Moderate	Low	Low	Moderate	Low	No information	Moderate
Gómez-Marcos et al.(2011)	Moderate	Moderate	Low	Low	Moderate	Low	No information	Moderate
Shi et al. (2021)	Low	Moderate	Low	Low	Moderate	Low	No	Moderate

Korhonen et al. (2010)	Low	Low	Low	Low	Moderate	Low	information No information	Moderate
Wei Zhou et al. (2023)	Low	Moderate	Low	Low	Moderate	Low	information No information	Moderate
Jiménez-Balado et al. (2022)	Low	Moderate	Low	Low	Moderate	Low	information No information	Moderate
Ramírez-Torres et al. (2023)	Low	Low	Low	Low	Moderate	Low	information No information	Moderate
Jin Sun et al. (2021)	Moderate	Low	Low	Low	Moderate	Low	information No information	Moderate
Vasan et al. (2022)	Low	Low	Low	Low	Moderate	Low	information No information	Moderate
Pedro Morillas et al. (2009)	Moderate	Moderate	Low	Low	Moderate	Low	information No information	Moderate
Kazuomi Kario et al. (2020)	Low	Moderate	Low	Low	Moderate	Low	information No information	Moderate
Agnes Jager et al. (1999)	Low	Low	Moderate	Low	Moderate	Low	information No information	Moderate
YY Luo et al. (2007)	Moderate	Moderate	Low	Low	Moderate	Low	information No information	Moderate
Raphael Monteiro et al. (2012)	Moderate	Moderate	Low	Low	Moderate	Low	information No information	Moderate
Wojciech Myslinski et al. (2020)	Moderate	Moderate	Low	Low	Moderate	Low	information No information	Moderate
M Peng et al. (2023)	Moderate	Moderate	Low	Low	Moderate	Low	information No information	Moderate
Päivi E. Korhonen et al. (2009)	Moderate	Moderate	Low	Low	Moderate	Low	information No information	Moderate
