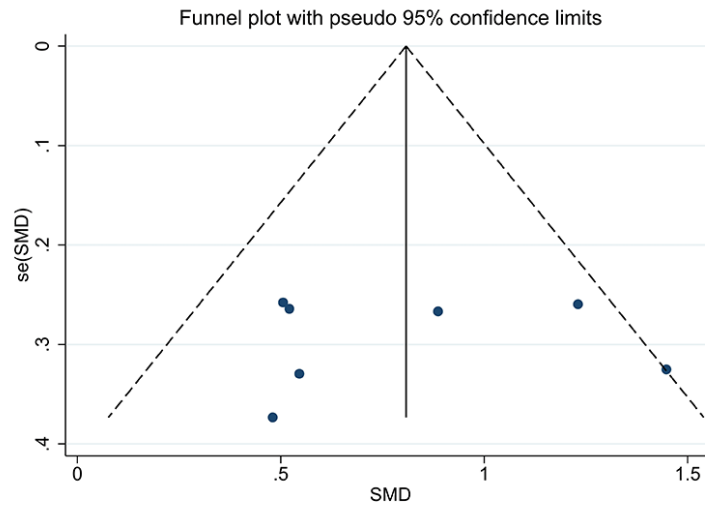


Table S1 Source where the articles can be found

Author	Year	Title	Source where article can be found
Zhen Sun	2014	Increased Serum Level of Soluble Vascular Endothelial Growth Factor Receptor-1 Is Associated with Poor Coronary Collateralization in Patients With Stable Coronary Artery Disease	<a href="https://pubmed.ncbi.nlm.nih.gov/24583918/">https://pubmed.ncbi.nlm.nih.gov/24583918/</a>
Mehmet Kadri Akboğa	2017	As cardioprotective and angiogenic biomarker, can ghrelin predict coronary collateral development and severity of coronary atherosclerosis?	<a href="https://pubmed.ncbi.nlm.nih.gov/28595201/">https://pubmed.ncbi.nlm.nih.gov/28595201/</a>
Jonathan A. Sherman	2006	Humoral and Cellular Factors Responsible for Coronary Collateral Formation	<a href="https://pubmed.ncbi.nlm.nih.gov/17056326/">https://pubmed.ncbi.nlm.nih.gov/17056326/</a>
Asife Sahinarslan	2010	Relation between serum monocyte chemoattractant protein-1 and coronary collateral development	<a href="https://pubmed.ncbi.nlm.nih.gov/20859200/">https://pubmed.ncbi.nlm.nih.gov/20859200/</a>
Hun-Jun Park	2008	Coronary collaterals: The role of MCP-1 during the early phase of acute myocardial infarction	<a href="https://pubmed.ncbi.nlm.nih.gov/18158188/">https://pubmed.ncbi.nlm.nih.gov/18158188/</a>
TSUNG-HSIEN LIN	2005	Vascular endothelial growth factor in coronary sinus: Evidence for its association with coronary collaterals	<a href="https://pubmed.ncbi.nlm.nih.gov/16352488/">https://pubmed.ncbi.nlm.nih.gov/16352488/</a>
Martin Fleisch	1999	Physiologically Assessed Coronary Collateral Flow and Intracoronary Growth Factor Concentrations in Patients With 1- to 3-Vessel Coronary Artery Disease	<a href="https://pubmed.ncbi.nlm.nih.gov/10556219/">https://pubmed.ncbi.nlm.nih.gov/10556219/</a>
Asife Sahinarsla	2011	The Relationship of Serum Erythropoietin Level with Coronary Collateral Grade	<a href="https://pubmed.ncbi.nlm.nih.gov/21775099/">https://pubmed.ncbi.nlm.nih.gov/21775099/</a>
Weixian Xu	2015	Serum erythropoietin: a useful biomarker for coronary collateral development and potential target for therapeutic angiogenesis among the patients with coronary chronic total occlusion	<a href="https://pubmed.ncbi.nlm.nih.gov/23672497/">https://pubmed.ncbi.nlm.nih.gov/23672497/</a>
Wang Jiajia	2018	Study on the correlation between plasma ESM -1 level and formation of coronary collateral circulation in patients with chronic coronary occlusion	<a href="http://en.cnki.com.cn/Article_en/CJFDTotal-HNYX201811004.htm">http://en.cnki.com.cn/Article_en/CJFDTotal-HNYX201811004.htm</a>
Yasar Kucukardali	2008	The relationship between severity of coronary artery disease and plasma level of vascular endothelial growth factor	<a href="https://pubmed.ncbi.nlm.nih.gov/18486079/">https://pubmed.ncbi.nlm.nih.gov/18486079/</a>
Hisao Ogawa	2000	Increased Blood Vascular Endothelial Growth Factor Levels in Patients with Acute Myocardial Infarction	<a href="https://pubmed.ncbi.nlm.nih.gov/10894913/">https://pubmed.ncbi.nlm.nih.gov/10894913/</a>
Barbara Eržen	2014	Stable phase post-MI patients have elevated VEGF levels correlated with inflammation markers, but not with atherosclerotic burden	<a href="https://pubmed.ncbi.nlm.nih.gov/25417001/">https://pubmed.ncbi.nlm.nih.gov/25417001/</a>
Yasar Kucukardali	2008	The relationship between severity of coronary artery disease and plasma level of vascular endothelial growth factor	<a href="https://pubmed.ncbi.nlm.nih.gov/18486079/">https://pubmed.ncbi.nlm.nih.gov/18486079/</a>
Takeshi Soeki	2000	Role of circulating vascular endothelial growth factor and hepatocyte growth factor in patients with coronary artery disease	<a href="https://pubmed.ncbi.nlm.nih.gov/11289497/">https://pubmed.ncbi.nlm.nih.gov/11289497/</a>
J. M. Cotton	2000	Acute rise of circulating vascular endothelial growth factor-A in patients with coronary artery disease following cardiothoracic surgery	<a href="https://pubmed.ncbi.nlm.nih.gov/12069450/">https://pubmed.ncbi.nlm.nih.gov/12069450/</a>



**Figure S1** VEGF and coronary artery disease risk: publication bias analysis. VEGF, vascular endothelial growth factor.

**Table S2** Heterogeneous results of meta-regression analysis of the correlation between the circulating VEGF and CAD

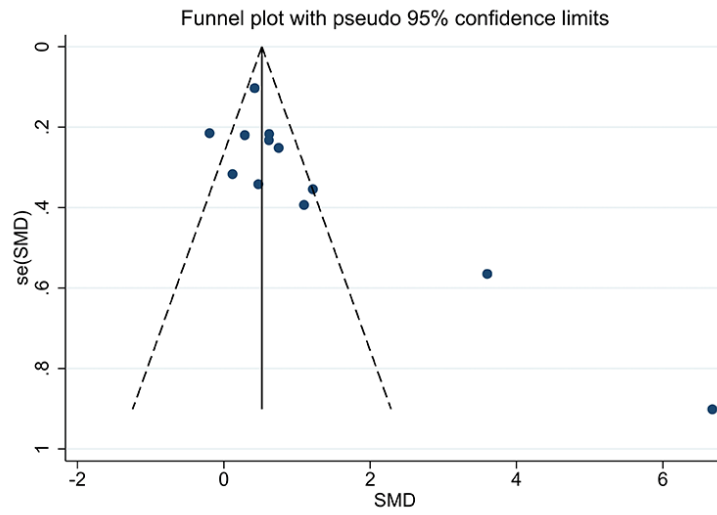
	CAD group			Control group		
	Co-eff	Z	P	Co-eff	Z	P
Age	0.015	0.97	0.33	0.017	1.04	0.29
Diabetes mellitus	1.3	1.31	0.19	1.3	1.04	0.23
Family history of CAD	-16	-2.03	0.11	3.3	1.37	0.17
Smoking	-0.30	-0.03	0.97	9.5	2.59	0.01
Hypertension	-0.12	-0.08	0.93	-0.16	-0.05	0.961
Sex (male)	-2.2	-1.8	0.06	1.9	0.48	0.63

CAD, coronary artery disease; VEGF, vascular endothelial growth factor.

**Table S3** Heterogeneous results of meta-regression analysis of the relationship between the patients with good and poor collateral circulation formation

	Good CCC			Poor CCC		
	Co-eff	Z	P	Co-eff	Z	P
Age	0.27	0.99	0.321	-0.16	-0.8	0.427
Diabetes mellitus	-8.1	-1.38	0.168	-7.0	-1.5	0.134
Family history of CAD	-2.2	-1.58	0.114	-2.2	-1.58	0.114
Smoking	9.9	3.04	0.002	9.4	2.59	0.01
Hypertension	-1.01	-0.38	0.705	-0.15	-0.05	0.961

CAD, coronary artery disease; CCC, coronary collateral circulation.



**Figure S2** VEGF and coronary collateral circulation formation: publication bias analysis. VEGF, vascular endothelial growth factor.