

Supplementary material

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Figure S1. Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flowchart of studies included in the systematic review and meta-analysis

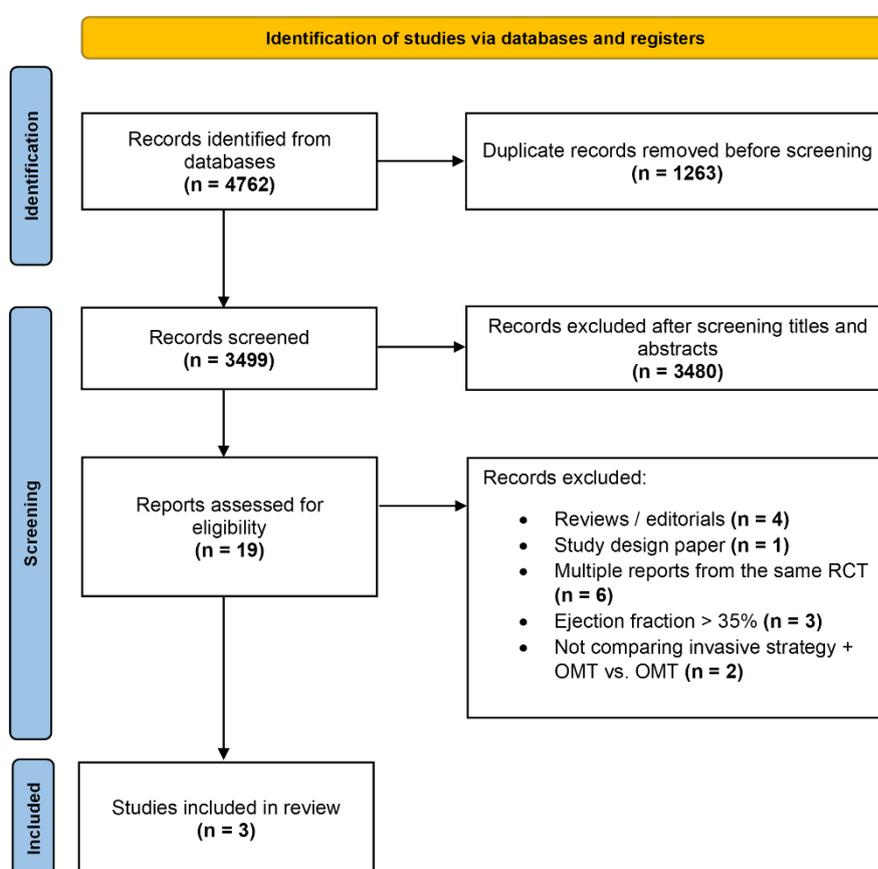


Table S1. Search strategy

Database	Queries
PubMed	random* AND ("ischemic cardiomyopathy" OR "heart failure" OR "left ventricular dysfunction") AND (PCI OR "percutaneous coronary intervention" OR CABG OR "coronary-artery bypass")
Scopus	TITLE-ABS-KEY (random* AND ("ischemic cardiomyopathy" OR "heart failure" OR "left ventricular dysfunction") AND (pci OR "percutaneous coronary intervention" OR cabg OR "coronary-artery bypass"))

Table S2. Selected characteristics of included trials

	STICHES	REVIVED-BCIS2	HEART
Years	2002-2015	2013-2022	2002-2011
Inclusion criteria	<ul style="list-style-type: none"> • LVEF \leq35% • CAD amenable to CABG 	<ul style="list-style-type: none"> • LVEF \leq35% • Extensive CAD (defined as a BCIS jeopardy score of \geq6) • Viability in at least four dysfunctional myocardial segments amenable to revascularization with PCI 	<ul style="list-style-type: none"> • LVEF \leq35% • Evidence of CAD on angiography or prior history of myocardial infarction • At least five viable segments with reduced contractility in a 17-segment model • Persistent heart failure of at least six weeks' dura-

			tion in patients who were receiving diuretics
Exclusion criteria	<ul style="list-style-type: none"> • Left main coronary artery stenosis of 50% or more of the artery diameter • Canadian Cardiovascular Society class III or IV angina 	<ul style="list-style-type: none"> • Acute myocardial infarction in the four weeks before randomization • Acute decompensated heart failure • Sustained ventricular arrhythmias within 72 hours before randomization 	<ul style="list-style-type: none"> • Recent acute coronary syndrome or stroke • Required revascularization for angina or valve surgery • Ventricular arrhythmia requiring device therapy • Life-limiting co-morbidity
Number of patients in the coronary revascularization and OMT alone groups	610; 602	347; 353	69; 69
Mode of coronary revascularization	CABG	PCI	CABG or PCI
Viability testing	Optional	Required for the enrollment	Required for the enrollment
Median (IQR) follow-up (years)	9.8 (9.1-11.0)	3.4 (2.3-5.0)	4.9 (2.8-5.3)

Abbreviations: BCIS = British Cardiovascular Intervention Society; CABG = coronary artery bypass grafting; CAD = coronary artery disease; HEART = The Heart Failure Revascularisation Trial; LVEF = left ventricular ejection fraction; OMT = optimal medical therapy; PCI = percutaneous coronary intervention; REVIVED-BCIS2 = Revascularization for Ischemic

Ventricular Dysfunction Trial; STICHES = The Surgical Treatment for Ischemic Heart Failure
Extension Study

Table S3. Baseline clinical and angiographic characteristics and medical treatment of patients in included randomized controlled trials

	STICHES		REVIVED-BCIS2		HEART	
	REV (n=610)	OMT (n=602)	REV (n=347)	OMT (n=353)	REV (n=69)	OMT (n=69)
Age – years	60 (54-68)	59 (53-67)	70.0±9.0	68.8±9.1	65 (58-70)	69 (60-74)
Male sex – n (%)	537 (88)	527 (88)	302 (87)	312 (88)	65 (94)	64 (93)
Diabetes – n (%)	240 (39)	238 (40)	136 (39)	153 (43)	28 (41)	23 (33)
Previous MI – n (%)	462 (76)	472 (78)	175 (50)	197 (56)	51 (74)	50 (73)
Previous PCI – n (%)	82 (13)	74 (12)	66 (19)	66 (19)	6 (9)	5 (7)
Previous CABG – n (%)	22 (4)	14 (2)	12 (3)	22 (6)	5 (7)	6 (9)
LVEF – %	27 (22-33)	28 (22-34)	27.0±6.6	27.0±6.9	ND	ND
NYHA III/IV – n (%)	226 (37)	221 (37)	80 (23)	102 (29)	28 (41)	22 (32)
Three-vessel disease – n (%)	228 (37)	214 (36)	133 (38)	148 (42)	43 (68)	ND
Left main disease – n (%)	18 (3)	14 (2)	50 (14)	45 (13)	3 (5)	ND
ACE-I or ARB – n (%)	554 (91)	531 (88)	293 (85)	294 (84)	66 (96)	62 (90)
ARNI – n (%)	0 (0)	0 (0)	15 (16)	23 (26)	0 (0)	0 (0)
MRA – n (%)	280 (46)	276 (46)	176 (51)	170 (48)	25 (36)	24 (35)
Beta-blocker – n (%)	507 (83)	529 (88)	315 (91)	319 (90)	62 (90)	66 (96)
Statin – n (%)	483 (79)	500 (83)	296 (85)	305 (86)	ND	ND

Continuous variables are shown as median (interquartile range) or mean ± standard deviation. Abbreviations: ACE-I = angiotensin-converting enzyme inhibitor; ARB = angiotensin receptor blocker; ARNI = angiotensin receptor neprilysin inhibitor; CABG = coronary artery bypass grafting; HEART = The Heart Failure Revascularisation Trial; LVEF = left ventricular ejection fraction; ND = no data; MRA = mineralocorticoid receptor antagonist; OMT = optimal medical therapy; PCI = percutaneous coronary intervention; REV = coronary revascularization; REVIVED-BCIS2 = Revascularization for Ischemic Ventricular Dysfunction Trial; STICHES = The Surgical Treatment for Ischemic Heart Failure Extension Study

Table S4. Events rate in patients randomized to coronary revascularization vs. optimal-medical therapy alone.

	STICHES		REVIVED-BCIS2		HEART	
	REV (n=610)	OMT (n=602)	REV (n=347)	OMT (n=353)	REV (n=69)	OMT (n=69)
Death from cardiovascular causes – n (%)	247 (40.5)	297 (49.3)	76 (21.9)	88 (24.9)	ND	ND
Death from any cause – n (%)	359 (58.9)	398 (66.1)	110 (31.7)	115 (32.6)	26 (37.7)	25 (36.2)
Death from any cause or hospitalization for heart failure – n (%)	404 (66.2)	450 (74.8)	129 (37.2)	134 (38.0)	ND	ND

Abbreviations: HEART = The Heart Failure Revascularisation Trial; ND = no data; OMT = optimal medical therapy; REV = coronary revascularization; REVIVED-BCIS2 = Revascularization for Ischemic Ventricular Dysfunction Trial; STICHES = The Surgical Treatment for Ischemic Heart Failure Extension Study