

# Clinical trials of myocardial revascularization for coronary artery disease in single vessel disease

TrialResults-center [www.trialresultscenter.org](http://www.trialresultscenter.org)

## 1 PCI

Trial	Treatments	Patients	Trials design and methods
<b>balloon angioplasty vs CABG</b>			
<b>MASS , 1995</b> n=72/70 follow-up: 3.2 y	percutaneous transluminal coronaryangioplasty versus mammary bypass surgery	patients with stable angina,normal ventricular function and a proximal stenosis of the leftanterior descending coronary artery >80%	open Brazil
<b>Lausanne , 1994</b> n=68/66 follow-up: 3.2 y	transluminal coronary angioplasty versus Coronary artery bypass grafting	patients with isolated proximal left anterior descending artery stenosis, conserved left ventricular function, and documented ischaemia	open Switzerland
<b>PCI withdrug-eluting stents vs CABG</b>			
<b>Hong , 2005</b> n=119/70 follow-up: 9 months	drug-eluting stents versus invasive direct coronary artery bypass (MIDCAB) surgery	proximal left anterior descending (LAD) coronary artery stenosis	Parallel groups open
<b>stent vs E-ACAB</b>			
<b>Cisowski</b> n=50/50 follow-up: 2 years	Tristar, Tera, Penta (Guidant) (Cordis) versus endoscopic atraumatic coronary artery bypass grafting	single vessel disease ACC/AHA A or B lesion in proximal LAD Angina CCS II or higher Lesion diameter 3 mm orgreater/length 20mm or greater	parallel group open Poland
<b>angioplasty vs MIDCAB</b>			
<b>AMIST (Reeves) , 2004</b> n=50/50 follow-up: 12 months	percutaneous transluminal coronary angioplasty (PTCA) with or without stenting versus minimally invasive direct coronary artery bypass grafting (MIDCAB)	single-vessel disease (at least 50% stenosis) of the left anterior descending coronary artery (LAD).	Parallel groups open England
<b>PCI withsirolimus ES vs MIDCAB</b>			
<b>Thiele , 2009</b> [NCT00299429] n=65/65 follow-up: 12 months	sirolimus-eluting stent versus MIDCAB surgery	isolated LAD disease	Parallel groups open Germany
<b>stent vs MIDCAB</b>			
<b>Diegeler , 2002</b> n=110/110 follow-up: 5 years	Various stents versus minimally invasive direct coronary artery bypass (off-pump procedure)	single vessel disease Lesion =75% stenosis in proximal LAD or between origin of left circumflex and 1st septal branch	parallel group open Germany

continued...

<b>Trial</b>	<b>Treatments</b>	<b>Patients</b>	<b>Trials design and methods</b>
<b>Drenth , 2002</b> n=51/51 follow-up: 6 months, 3 years	Stent type not reported versus minimally invasive direct coronary artery bypass (off-pump procedure)	single vessel disease Angina II Lesion (Grade B2 or C) of proximal LAD Suitable for CABG or stenting	parallel group open Netherlands
<b>Grip , 2001</b> n=28/25 follow-up:	Stent type not reported versus minimally invasive direct coronary artery bypass (off-pump procedure)	single vessel disease engaging LAD Stable or unstable angina	parallel group open Sweden
<b>SIMA , 2000</b> n=62/59 follow-up: 2.4 years	Any CE marked, but Palmaz-Schatz recommended versus Conventional CABG or minimally invasive direct coronary artery bypass (off-pump procedure) (10% of surgical procedures)	single vessel disease Symptomatic or silent ischaemia 1 LAD lesion Ejection fraction >45% Vessel >3.0mm	parallel group open Europe

## References

### **MASS, 1995:**

Hueb WA, Bellotti G, de Oliveira SA, Arie S, de Albuquerque CP, Jatene AD, Pileggi F The Medicine, Angioplasty or Surgery Study (MASS): a prospective, randomized trial of medical therapy, balloon angioplasty or bypass surgery for single proximal left anterior descending artery stenoses. *J Am Coll Cardiol* 1995 Dec;26:1600-5 [[7594092](#)]

### **Lausanne, 1994:**

Goy JJ, Eeckhout E, Burnand B, Vogt P, Stauffer JC, Hurni M, Stumpe F, Ruchat P, Sadeghi H, Kappenberger L Coronary angioplasty versus left internal mammary artery grafting for isolated proximal left anterior descending artery stenosis. *Lancet* 1994 Jun 11;343:1449-53 [[7911175](#)]

### **Hong, 2005:**

Hong SJ, Lim DS, Seo HS, Kim YH, Shim WJ, Park CG, Oh DJ, Ro YM Percutaneous coronary intervention with drug-eluting stent implantation vs. minimally invasive direct coronary artery bypass (MIDCAB) in patients with left anterior descending coronary artery stenosis. *Catheter Cardiovasc Interv* 2005;64:75-81 [[15619278](#)]

### **Cisowski, 0:**

#### **AMIST (Reeves), 2004:**

Reeves BC, Angelini GD, Bryan AJ, Taylor FC, Cripps T, Spyt TJ, Samani NJ, Roberts JA, Jacklin P, Sehra HK, Culliford LA, Keenan DJ, Rowlands DJ, Clarke B, Stanbridge R, Foale R A multi-centre randomised controlled trial of minimally invasive direct coronary bypass grafting versus percutaneous transluminal coronary angioplasty with stenting for proximal stenosis of the left anterior descending coronary artery. *Health Technol Assess* 2004;8:1-43 [[15080865](#)]

### **Thiele, 2009:**

Thiele H, Neumann-Schniedewind P, Jacobs S, Boudriot E, Walther T, Mohr FW, Schuler G, Falk V Randomized comparison of minimally invasive direct coronary artery bypass surgery versus sirolimus-eluting stenting in isolated proximal left anterior descending coronary artery stenosis. *J Am Coll Cardiol* 2009 Jun 23;53:2324-31 [[19539141](#)]

### **Diegeler, 2002:**

Diegeler A, Thiele H, Falk V, Hambrecht R, Spyrtantis N, Sick P, Diederich KW, Mohr FW, Schuler G Comparison of stenting with minimally invasive bypass surgery for stenosis of the left anterior descending coronary artery. *N Engl J Med* 2002;347:561-6 [[12192015](#)]

Diegeler A, Spyrtantis N, Matin M, Falk V, Hambrecht R, Autschbach R, Mohr FW, Schuler G The revival of surgical treatment for isolated proximal high grade LAD lesions by minimally invasive coronary artery bypass grafting. *Eur J Cardiothorac Surg* 2000;17:501-4 [[10814909](#)]

### **Drenth, 2002:**

Drenth DJ, Veeger NJ, Grandjean JG, Mariani MA, van Boven AJ, Boonstra PW Isolated high-grade lesion of the proximal LAD: a stent or off-pump LIMA? *Eur J Cardiothorac Surg* 2004;25:567-71 [[15037273](#)]

Drenth DJ, Veeger NJ, Winter JB, Grandjean JG, Mariani MA, Boven van AJ, Boonstra PW A prospective randomized trial comparing stenting with off-pump coronary surgery for high-grade stenosis in the proximal left anterior descending coronary artery: three-year follow-up. *J Am Coll Cardiol* 2002;40:1955-60 [[12475455](#)]

Drenth DJ, Winter JB, Veeger NJ, Monnick SH, van Boven AJ, Grandjean JG, Mariani MA, Boonstra PW Minimally invasive coronary artery bypass grafting versus percutaneous transluminal coronary angioplasty with stenting in isolated high-grade stenosis of the proximal left anterior descending coronary artery: six months' angiographic and clinical follow-up of a prospective randomized study. *J Thorac Cardiovasc Surg* 2002;124:130-5 [[12091818](#)]

**Grip, 2001:**

Grip L, Wahrborg P, Odell A, Albertsson P, Berglin E, Brandrup- Coronary artery bypass beating heart surgery with LIMA graft, versus coronary angioplasty with stent for patients with single left anterior descending artery - a pilot study *European Heart Journal* 2001;22 (Suppl):597

**SIMA, 2000:**

Goy JJ, Kaufmann U, Goy-Eggenberger D, Garachemani A, Hurni M, Carrel T, Gaspardone A, Burnand B, Meier B, Versaci F, Tomai F, Bertel O, Pieper M, de Benedictis M, Eeckhout E A prospective randomized trial comparing stenting to internal mammary artery grafting for proximal, isolated de novo left anterior coronary artery stenosis: the SIMA trial. *Stenting vs Internal Mammary Artery*. *Mayo Clin Proc* 2000;75:1116-23 [[11075740](#)]

## 2 About TrialResults-center.org

TrialResults-center is an innovative knowledge database that collects the results of RCTs and provides dynamic interactive systematic reviews and meta-analysis in the field of all major heart and vessels diseases.

The TrialResults-center database provides a unique view of the treatment efficacy based on all data provided directly from clinical trial results, offering a valuable alternative to personal bibliographic search, published meta-analysis, etc. Furthermore, it would allow comparing easily the various concurrent therapeutic for the same clinical condition.

Rigorous meta-analysis method is used to populate TrialResults-center: widespread search of published and non published trials, study selection using pre-specified criteria, data extraction using standard form.

TrialResults-center is continually updated on a weekly basis. We continually search all new results (whatever their publication channel) and these news results are immediately added to the database with a maximum of 1 week.

TrialResults-center is non-profit and self-funded.