

# Clinical trials of thrombectomy for percutaneous coronary intervention in patients with acute MI

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## 1 Catheter aspiration devices

Trial	Treatments	Patients	Trials design and methods
<b>Diver vs conventional PCI</b>			
<b>De Luca , 2006</b> n=38/38 follow-up: 6 months	Diver versus conventional stenting	patients with anterior ST elevation myocardial infarction	open
<b>PIHRATE , 2004</b> n=102/94 follow-up: hospital stay	Diver versus conventional PCI	patients with acute myocardial infarction	
<b>REMEDIA , 2005</b> n=50/49 follow-up: 1 month	Diver versus standard PCI	patients with ST-segment elevation acute myocardial infarction	open
<b>Sardella , 2005</b> n=28/34 follow-up: 6 months	Diver versus conventional PCI	patients with acute myocardial infarction	
<b>Export vs conventional PCI</b>			
<b>Lipiecki , 2009</b> n=20 follow-up:	-	-	
<b>EXPIRA , 2005</b> n=88/87 follow-up: 1, 9 months	Export versus conventional PCI	patients with acute myocardial infarction	
<b>Export (Chevalier) , 2008</b> n=120/129 follow-up: 1 month	Export versus conventional PCI	patients with acute myocardial infarction	
<b>Noel , 2005</b> n=24/26 follow-up: hospital stay	Export versus conventional PCI	patients with acute myocardial infarction	
<b>TAPAS , 2008</b> [ISRCTN16716833] n=535/536 follow-up: 1,12 months	Export versus conventional PCI	patients with myocardial infarction	Parallel groups open Netherlands
<b>Pronto vs conventional PCI</b>			
<b>DEAR-MI , 2006</b> [NCT00257153] n=74/74 follow-up: 65279;1 month	65279;Pronto versus primary percutaneous coronary intervention	patients with STEMI, admitted within 12 h of symptom onset	open

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Trial	Treatments	Patients	Trials design and methods
<b>Rescue vs conventional PCI</b>			
Dudek , 2004 n=40/32 follow-up: hospital stay	Rescue (followed by stent implantation) versus PCI with stent implantation alone	patient with acute myocardial infarction with ST segment elevation	open
Kaltoft , 2006 n=108/107 follow-up: 1 month	Rescue versus standard PCI	patients with ST-segment-elevation myocardial infarction lasting <12 hours undergoing primary PCI	open
NONSTOP , 2004 n=129/129 follow-up: Hospital	Rescue versus conventional PCI	patients with acute myocardial infarction	
<b>TVAC vs conventional PCI</b>			
VAMPIRE , 2004 n=180/175 follow-up: 8 months	TVAC versus conventional PCI	patients with acute myocardial infarction	

## References

De Luca, 2006:  
PIHRATE, 2004:  
REMEDIA, 2005:  
Sardella, 2005:  
Lipiecki, 2009:  
EXPIRA, 2005:  
Export (Chevalier), 2008:  
Noel, 2005:  
TAPAS, 2008:  
DEAR-MI, 2006:  
Dudek, 2004:  
Kaltoft, 2006:  
NONSTOP, 2004:  
VAMPIRE, 2004:

## 2 embolic protection devices

Trial	Treatments	Patients	Trials design and methods
<b>Angioguard vs conventional PCI</b>			
DIPLOMATE , 2004 n=32/28 follow-up: 1 month	Angioguard versus conventional PCI	patients with acute myocardial infarction	

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<b>Trial</b>	<b>Treatments</b>	<b>Patients</b>	<b>Trials design and methods</b>
Wang , 2003 n=20/20 follow-up: hospital stay	Angioguard versus conventional PCI	patients with acute myocardial infarction	open
<b>FilterWire vs conventional PCI</b>			
PROMISE , 2005 n=100/100 follow-up: 1 month	FilterWire versus control	patients with myocardial infarction with and without ST-segment elevation	open
UpFlow MI , 2007 n=51/49 follow-up: 1 month	FilterWire versus PCI using regular guidewires	patients with STEMI and coronary angiographic evidence of thrombotic occlusion	open
<b>FilterWireg vs conventional PCI</b>			
DEDICATION , 2008 n=312/314 follow-up: 1 month	FilterWireg versus PCI without distal protection	patients with STEMI referred within 12 h to have PCI	open
<b>GuardWire vs conventional PCI</b>			
ASPARAGUS , 2008 n=173/168 follow-up: hospital stay, 6 months	Guardwire versus conventional PCI	patients with acute myocardial infarction	open
EMERALD , 2005 n=252/249 follow-up: 1, 6 months	GuardWire versus angioplasty without distal protection	patients with ST-segment elevation myocardial infarction presenting within 6 hours of symptom onset and undergoing primary PCI or rescue intervention after failed thrombolysis	open
MICADO , 2007 n=80/74 follow-up: 1, 6 months	GuardWire versus PCI without distal protection	Patients with AMI within 24 hours from onset	open
Nanasato , 2004 n=34/30 follow-up: hospital stay	Guardwire versus conventional PCI	patients with acute myocardial infarction	open
Ochala , 2007 n=57/63 follow-up: 6 months	GuardWire versus abciximab	patients with ST elevation acute myocardial infarction referred for primary percutaneous coronary intervention	open
Tahk , 2008 n=50/46 follow-up: 1, 6 months	GuardWire versus primary angioplasty without distal protection	AMI patients presenting within 12 h of onset of symptoms	open
<b>SpideRX vs conventional PCI</b>			
PREMIAR , 2007 n=70/70 follow-up: 1, 6 months	SpideRX versus PCI without embolic protection	with acute ST-segment elevation myocardial infarction at high risk of embolic events (including only baseline Thrombolysis In Myocardial Infarction grade 0 to 2 flow)	open

## References

DIPLOMATE, 2004:

Wang, 2003:

PROMISE, 2005:  
 UpFlow MI, 2007:  
 DEDICATION, 2008:  
 ASPARAGUS, 2008:  
 EMERALD, 2005:  
 MICADO, 2007:  
 Nanasato, 2004:  
 Ochala, 2007:  
 Tahk, 2008:  
 PREMIAR, 2007:

### 3 Mechanical thrombectomy devices

Trial	Treatments	Patients	Trials design and methods
<b>AngioJet vs conventional PCI</b>			
AiMI , 2006 n=240/240 follow-up: 1 month	AngioJet versus PCI alone	patients presenting within 12 h of symptom onset	open
Florence , 2004 n=50/50 follow-up: 1 month	AngioJet versus placebo	patients with a first acute myocardial infarction	
<b>AnjoJet vs conventional PCI</b>			
JETSTENT , 2010 n=256/245 follow-up: 6 months	AngioJet rheolytic thrombectomy versus direct stenting alone	patients with ST-elevation MI and at least moderate thrombus burden	Parallel groups open Italy
<b>Export vs conventional PCI</b>			
Lipiecki , 2009 n=20 follow-up:	-	-	
EXPIRA , 2005 n=88/87 follow-up: 1, 9 months	Export versus conventional PCI	patients with acute myocardial infarction	
Export (Chevalier) , 2008 n=120/129 follow-up: 1 month	Export versus conventional PCI	patients with acute myocardial infarction	
Noel , 2005 n=24/26 follow-up: hospital stay	Export versus conventional PCI	patients with acute myocardial infarction	
TAPAS , 2008 [ISRCTN16716833] n=535/536 follow-up: 1,12 months	Export versus conventional PCI	patients with myocardial infarction	Parallel groups open Netherlands

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Trial	Treatments	Patients	Trials design and methods
<b>thrombectomy vs conventional PCI</b>			
Ciszewski , 2011 n=67/70 follow-up:	-	high risk patients with STEMI and angiographic evidence of thrombus	
Liistro , 2009 n=NA follow-up:	-	patients with ST-segment elevation myocardial infarction	
INFUSE AMI , 2013 n=NA follow-up:	-	patients with ST-segment-elevation myocardial infarction caused by proximal or mid left anterior descending artery occlusion undergoing primary percutaneous coronary intervention with bivalirudin anticoagulation	
Chao , 2008 n=NA follow-up:	-	STEMI patients within 12 h from onset	
MUSTELLA n=NA follow-up:	-	-	
TROPHI n=NA follow-up:	-	-	
<b>X-sizer vs conventional PCI</b>			
Beran , 2002 n=30/31 follow-up: 1 month	X-sizer versus conventional PCI	patients with ACS and suspected intracoronary thrombus	open
Napodano , 2003 n=46/46 follow-up: 1 month	X-sizer versus conventional strategy of stenting	patients with AMI and angiographic evidence of intraluminal thrombus	open
X AMINE ST , 2005 n=100/101 follow-up: 1, 6 months	X-sizer versus standard PCI	patients with AMI <12 h and initial TIMI flow grade 0 to 1 and who were treated by PCI	open
<b>thrombectomy vs PCI only</b>			
TASTE (Frbert) , 2013 [NCT01093404] n=NA follow-up:	-	patients with STEMI undergoing PCI	
TOTAL , 2015 [NCT01149044] n=5033/5030 follow-up:	routine upfront manual thrombectomy versus PCI alone	patients with ST-segment elevation myocardial infarction (STEMI) undergoing primary PCI	

## References

AiMI, 2006:

Florence, 2004:

JETSTENT, 2010:

**Lipiecki, 2009:**  
**EXPIRA, 2005:**  
**Export (Chevalier), 2008:**  
**Noel, 2005:**  
**TAPAS, 2008:**  
**Ciszewski, 2011:**  
**Liistro, 2009:**  
**INFUSE AMI, 2013:**  
**Chao, 2008:**  
**MUSTELLA, :**  
**TROPHI, :**  
**Beran, 2002:**  
**Napodano, 2003:**  
**X AMINE ST, 2005:**  
**TASTE (Frbert), 2013:**  
**TOTAL, 2015:**

## 4 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.

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