

# Clinical trials of transmyocardial revascularization for coronary artery disease in all type of patients

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## 1 transmyocardial revascularization

Trial	Treatments	Patients	Trials design and methods
<b>TMR+CABG vs CABG</b>			
<b>Allen , 2000</b> n=132/131 follow-up:	coronary bypass of suitable vessels plus transmyocardial revascularization to areas not graftable versus coronary bypass alone with nongraftable areas left unrevascularized	patients whose standard of care was coronary artery bypass grafting and who had one or more ischemic areas not amenable to bypass grafting	single blind
<b>Loubani , 2003</b> n=10/10 follow-up: 36 months	coronary artery bypass grafting plus transmyocardial laser revascularization with a holmium:YAG (yttrium-aluminum-garnet) laser to nongraftable areas versus coronary artery bypass grafting	Patients who had elective coronary artery bypass with one or more nongraftable coronary arteries	Parallel groups open UK
<b>Zhao , 2006</b> n=40/40 follow-up: 3.4y	transmyocardial laser revascularization (holmium: YAG) combined with off-pump coronary artery bypass versus off-pump coronary artery bypass	patients with diffusely diseased target vessels	Parallel groups open China
<b>TMR vs placebo</b>			
<b>Leon (high dose) , 2005</b> n=98/102 follow-up: 6 months	high-dose myocardial laser channels versus placebo (sham procedure)	patients with severe angina	Parallel groups double blind US
<b>Leon (low dose) , 2005</b> n=98/102 follow-up: 6 months	low-dose myocardial laser channels versus placebo (sham procedure)	patients with severe angina	Parallel groups double blind US
<b>TMR vs medical treatment</b>			
<b>Aaberge , 2000</b> n=50/50 follow-up: 12 months	transmyocardial revascularization with CO2-laser versus continued optimal medical treatment	patients with refractory angina not eligible for conventional revascularization	Parallel groups open Norway
<b>Allen , 1999</b> n=132/143 follow-up: 1 y	transmyocardial revascularization versus medical therapy alone	patients with medically refractory class IV angina and coronary disease that could not be treated with percutaneous or surgical revascularization	Parallel groups open US

continued...

<b>Trial</b>	<b>Treatments</b>	<b>Patients</b>	<b>Trials design and methods</b>
<b>ATLANTIC (Burkhoff) , 1999</b> n=92/90 follow-up: 1 y	Transmyocardial revascularisation versus medical treatment alone	patients with Canadian Cardiovascular Society Angina (CCSA) score III or IV, reversible ischaemia, and incomplete response to other therapies	Parallel groups open US
<b>Frazier , 1999</b> n=91/101 follow-up: 12 months (4y)	transmyocardial revascularization versus continued medical treatment	patients with end-stage coronary artery disease	Parallel groups open US
<b>Gray , 2003</b> n=36/37 follow-up: 12 months	percutaneous myocardial laser revascularization versus medical therapy alone	with stable angina pectoris (class III or IV) who were unsuitable for conventional revascularization and had evidence of reversible ischemia by thallium-201 scintigraphy, ejection fraction of $\geq 25\%$ , and myocardial wall thickness $\geq 8$ mm	Parallel groups open
<b>Huikeshoven , 2003</b> n=30 follow-up: 1y	XeCl excimer transmyocardial laser revascularization versus optimal cardiac medication	-	Parallel groups open
<b>March , 1999</b> n=198 follow-up: 12 months	Transmyocardial laser revascularization versus continued medical management	patients with symptomatic end-stage coronary artery disease	Parallel groups open
<b>PACIFIC , 2000</b> n=110/111 follow-up: 12 months	Percutaneous transmyocardial laser revascularisation versus medical treatment only	patients with reversible ischaemia of Canadian Cardiovascular Society angina class III or IV and incomplete response to other therapies	Parallel groups open US, UK
<b>Salem , 2004</b> n=40/42 follow-up: 12 months	percutaneous myocardial laser revascularization versus optimal medical therapy	patients with stable angina pectoris (class III or IV) not amenable to conventional revascularization and with evidence of reversible ischemia, ejection fraction $\geq 25\%$ , and myocardial wall thickness $\geq 8$ mm	Parallel groups double blind Norway
<b>Schofield , 1999</b> n=94/94 follow-up: 1 y	Transmyocardial laser revascularisation versus medical management alone	patients with refractory angina	Parallel groups open
<b>Stone , 2002</b> n=71/70 follow-up: 6 months	percutaneous transmyocardial revascularization versus maximal medical therapy	patients with class III or IV angina caused by one or more chronically occluded native coronary arteries in which a percutaneous coronary intervention had failed	Parallel groups single blind (patient) US
<b>van der Sloot , 2004</b> n=15/15 follow-up: 12 months	XeCl excimer transmyocardial laser revascularization versus maximal medication	patients with refractory angina	Parallel groups open the Netherlands
<b>TMR vs thoracic sympathectomy</b>			
<b>Galianes , 2004</b> n=10/10 follow-up: 42 months	Transmyocardial laser revascularization by holmium: yttrium aluminum garnet laser versus thoracic sympathectomy	patients with nonrevascularizable coronary arteries and intractable angina	Parallel groups open

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