

## COCHRANE REVIEWS

# Cochrane Collaborative Review Group on Peripheral Vascular Diseases: Review Abstracts

### Introduction

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If you are interested in conducting a Cochrane review or contributing to the activities of the Cochrane Collaborative Review Group on Peripheral Vascular Diseases, please contact:

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### Abstracts

#### **Abstract. Cilostazol for peripheral arterial disease**

Robless P, Mikhailidis DP, Stansby GP

*The Cochrane Database of Systematic Reviews* Published in Issue 1, 2007

### Background

Peripheral arterial disease (PAD) affects 4% to 12% of people aged 55 to 70 years and 20% of people over 70 years. The most common complaint is intermittent claudication (IC) characterised by pain in the legs or buttocks that occurs with exercise and which subsides with rest. Compared with age-matched controls, people with IC have a three- to six-fold increase in cardiovascular mortality. Symptoms of IC, walking distance, and quality of life can be improved by risk factor modification, smoking cessation, and a structured exercise program. Antiplatelet treatment is beneficial in patients with IC for the reduction of vascular events but has not been shown to influence claudication distance.

### Objectives

To determine the effect of cilostazol on improving walking distance and in reducing vascular mortality and cardiovascular events in patients with stable IC.

### Search Strategy

The Cochrane Peripheral Vascular Diseases Group searched their specialised register (last searched August 2006) and the Cochrane Central Register of Controlled Trials (CENTRAL) (Issue 3, 2006). We searched MEDLINE (1966 to November 2005),

EMBASE (1980 to November 2005), several more specialised databases, and reference lists of articles.

### Selection Criteria

Double-blind, randomised controlled trials of cilostazol versus placebo, or versus other antiplatelet agents in patients with stable IC or patients undergoing vascular surgical intervention for PAD.

### Data Collection and Analysis

Two authors independently assessed trials for selection and all three authors independently extracted data.

### Main Results

Eight randomised controlled trials comparing cilostazol with placebo were included.

The weighted mean difference (WMD) for the initial claudication distance (ICD) was improved following treatment with cilostazol 100 mg twice daily (WMD 31.1 m; 95% confidence interval (CI): 21.4 to 40.9 m) and 50 mg twice daily (WMD 41.3 m; 95% CI: -7.1 to 89.7 m) compared with placebo.

Participants receiving cilostazol 150 mg twice daily had an increased ICD (WMD 15.7 m; 95% CI: -9.6 to 41.0 m) compared with those receiving placebo.

One study also included a comparison with pentoxifylline. In this study, participants receiving cilostazol had significant improvement in ICD compared with placebo.

There was no increase in major adverse events including cardiovascular events or mortality in patients receiving cilostazol compared with placebo.

### Authors' Conclusions

Patients with IC should receive secondary prevention for cardiovascular disease. Cilostazol has been shown to be of benefit in improving walking distance in people with IC. There are no data on whether it results in a reduction of adverse cardiovascular events.

#### Abstract. Endovascular treatment for ruptured abdominal aortic aneurysm

Dillon M, Cardwell C, Blair PH, Ellis P, Kee F, Harkin DW

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### Background

An abdominal aortic aneurysm (AAA) (the pathological enlargement of the aorta) can develop in both men and women as they grow older. It is most commonly seen in men over the age of 65 years. Progressive aneurysm enlargement can lead to rupture and massive internal bleeding, a fatal event unless timely repair can be achieved. Despite improvements in perioperative care, mortality remains high (approximately 50%) after conventional open surgical repair. A newer minimally invasive technique, endovascular repair, has been shown to reduce early morbidity and mortality, as compared to conventional open surgery, for planned AAA repair. Emergency endovascular repair (eEVAR) has been used successfully to treat ruptured abdominal aortic aneurysm (RAAA), proving that it is feasible in selected patients. However, it is not yet known if eEVAR will lead to significant improvements in outcomes for these patients or indeed if it can replace conventional open repair as the preferred treatment for this lethal condition.

### Objectives

To compare the advantages and disadvantages of eEVAR in comparison with conventional open surgical repair for the treatment of RAAA.

### Search Strategy

The Cochrane Peripheral Vascular Diseases Group searched their trials register (last searched October 2006) and the Cochrane Central Register of Controlled Trials (CENTRAL) database (last searched Issue 4, 2006). We searched a number of electronic databases and handsearched relevant journals until March 2006 to identify studies for inclusion.

### Selection Criteria

Randomised controlled trials in which patients with a confirmed ruptured abdominal aortic aneurysm were randomly allocated to eEVAR, or conventional open surgical repair.

### Data Collection and Analysis

Studies identified for potential inclusion were independently assessed for eligibility by at least two reviewers, with excluded studies further checked by the agreed arbitrators. As no randomised controlled

trials were identified at present no tests of heterogeneity or sensitivity analysis were performed.

### Main Results

There were no randomised controlled trials identified at present comparing eEVAR with conventional open surgical repair for the treatment of RAAA.

### Authors' Conclusions

There is no high quality evidence to support the use of eEVAR in the treatment of RAAA. However, evidence from prospective controlled studies without randomisation, prospective studies, and retrospective case series suggest that eEVAR is feasible in selected patients, with outcomes comparable to best conventional open surgical repair for the treatment of RAAA. Furthermore, endovascular repair in selected patients may be associated with a trend towards reductions in blood loss, duration of intensive care treatment, and mortality.

#### Abstract. Treatment for superficial thrombophlebitis of the leg

Di Nisio M, Middeldorp S, Wichers IM

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### Background

The optimal treatment of superficial thrombophlebitis (ST) of the legs remains poorly defined. While improving or relieving the local painful symptoms, treatment should aim at preventing venous thromboembolism (VTE), which might complicate the natural history of ST.

### Objectives

To assess the efficacy and safety of topical, medical, and surgical treatments in patients presenting with ST of the legs.

### Search Strategy

The Cochrane Peripheral Vascular Diseases Group searched their specialized register (last searched October 2006), and the Cochrane Central Register of Controlled Trials (CENTRAL) (last searched Issue 4, 2006). We searched MEDLINE (1966 to January 2006), EMBASE (1980 to January 2006), and handsearched

reference lists of relevant papers and conference proceedings.

### Selection Criteria

Randomized trials evaluating topical, medical, and surgical treatments for ST of the leg including participants with a clinical diagnosis of ST of the legs or objective diagnosis of a thrombus in the superficial vein.

### Data Collection and Analysis

Two authors assessed the trials for inclusion in the review, extracted the data, and assessed the quality of the studies. Data were extracted independently from the included studies and any disagreements resolved by consensus.

### Main Results

Twenty-four studies involving 2469 participants with ST of the legs were included in this review. The methodological quality of most of the trials was poor. Treatment ranged from low molecular weight heparin (LMWH), to non-steroidal anti-inflammatory agents (NSAIDs), topical treatment, surgery, oral, intramuscular, and intravenous treatments. Both LMWH and NSAIDs significantly reduced the incidence of ST extension or recurrences by about 70% compared with placebo and both seemed to have a similar efficacy and safety. Overall, topical treatments improved local symptoms. However, no data were provided on the effects of these treatments on VTE and ST extension. Surgical treatment combined with elastic stockings in ST was associated with a lower VTE rate and ST progression, compared with elastic stockings alone.

### Authors' Conclusions

Low molecular weight heparin and NSAIDs appear as the current best therapeutic options for ST of the legs. While the available data are too limited to make clear recommendations, an intermediate dose of LMWH for at least a month might be advised. Further research is needed to assess the role of NSAIDs and LMWH, the optimal doses and duration of treatment, and whether a combination therapy may be more effective than single treatment. Adequately designed and conducted studies are required to clarify the role of topical and surgical treatments.

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