COCHRANE PRIMARY HEALTH CARE FIELD

PEARLS Practical Evidence About Real Life Situations

Beta-blockers can be used with caution in peripheral arterial disease

Clinical question	What are the potential harms of using beta-blockers in patients with peripheral arterial disease (PAD)?
Bottom line	None of the trials reviewed showed a clear worsening effect of beta-blockers on time to claudication, claudication and maximal walking distances measured on a treadmill, calf blood flow, calf vascular resistance and skin temperature when compared with placebo. The trials did not report any adverse events or issues regarding taking the medication with the beta-blockers studied (atenolol, propranolol, pindolol and metoprolol). Beta-blockers should be used with caution in PAD if clinically indicated.
Caveat	Most of the trials were over 10 years old, reported on between 1980 and 1991. All were small and of poor quality. The drugs were administered for a short period of time (10 days to 2 months) and most of the outcome measures were reported in single studies. Additional drugs, calcium channel blockers and combined alpha and beta-blockers, were also given in some of the trials.
Context	Beta-blockers have been shown to decrease mortality in people with high blood pressure and coronary artery disease. Optimal therapy for people with either coronary artery disease or hypertension and PAD is controversial. This is because of the presumed peripheral blood flow consequences of beta-blockers, leading to worsening of symptoms.
Cochrane Systematic Review	Paravastu S C V et al. Beta blockers for peripheral arterial disease. Cochrane Reviews 2008, Issue 4. Article No. CD005508. DOI: 10.1002/14651858.CD005508.pub2. This review contains 6 trials involving 119 participants.
PEARLS 127, October 2008, written by Brian R McAvoy (first published in New Zealand Doctor, 11 February 2009)	

[References]