INVITED COMMENTARY

Cardiac Risk Reduction in Patients with Intermittent Claudication

O. Schouten,1 S.E. Hoeks,2 J.J. Bax2 and D. Poldermans4*

Departments of 1Vascular Surgery, 2Cardiology, Erasmus MC, Rotterdam, The Netherlands, 3Department of Cardiology, Leiden University Medical Center, Leiden, The Netherlands, and 4Department of Anesthesiology, Erasmus MC, Rotterdam, The Netherlands

Peripheral atherosclerotic disease (PAD) occurs commonly in the Western Society, with a prevalence of up to 20% in patients 70 years and older, and is associated with an adverse long-term outcome mainly because of underlying coronary artery disease.1 Patients at risk for atherosclerotic disease are usually screened for cardiac risk factors or diseases such as angina pectoris, myocardial infarction, and heart failure. It is surprising that a relatively simple, objective and cheap marker of the extent of atherosclerosis, the ankle-brachial index (ABI), is not appreciated more frequently by physicians taking care of these patients. As shown previously, the ABI correlates with the extent of angiographic coronary artery disease, reflecting the concept that PAD is a marker of generalized atherosclerosis.2 As shown in a large cohort study of 3209 patients, both resting and post-exercise ABI values are strong and independent predictors of long-term mortality. Risk factors associated with adverse long-term outcome were the presence of coronary artery disease (hazard ratio 1.4, 95% CI 1.2–1.6), renal dysfunction (hazard ratio 3.3, 95% CI 2.7–4.2) and smoking (hazard ratio 1.3, 95% CI 1.1–1.4).3 In the era of pharmaceutical interventions targeting blood pressure, lipid levels, and glucose regulation, the effect of smoking cessation is often considered too little, while up to 84% of patients have a history of smoking and 35–40% are current smokers.4,5 Patients with PAD are treated by numerous specialists ranging from general practitioners, internists, cardiologists, neurologists and surgeons. The REACH (REduction of Atherothrombosis for Continued Health) study is a long-term observational study including a wide variety of PAD patients treated by these specialists. Recently, at the European Society of Cardiology meeting in Barcelona, the 2-year follow-up results of the REACH registry were presented. Importantly, this study addresses the international differences among patients with PAD. The study included more than 68,000 patients enrolled from 5,592 sites of 44 countries.6 The registry provides detailed information on risk factors for atherosclerotic disease, medical therapy, achievement of therapeutic targets, and long-term outcome among this worldwide population. As was shown, there is a huge increase of cardiovascular mortality in patients with multiple risk factors or manifestations of atherosclerotic disease. Results showed that, during 2-year follow-up, 20% of patients suffered a major event or were hospitalized. Similar results were observed in a large study population from the Netherlands (Fig. 1). As shown, compared to a matched reference group for age and gender, patients with symptomatic PAD had a significantly worse outcome. Importantly, even when comparing patients with PAD to patients who underwent percutaneous coronary intervention (PCI), those with PAD had a worse outcome. One might speculate about the cause of these observations. Patients with coronary artery disease are usually screened and aggressively treated by cardiologists according to guidelines of the ESC or ACC/AHA.7

Not only pharmaceutical interventions should be considered, but also, perhaps even more importantly,
life-style changes such as smoking cessation. Recently, van Domburg et al. showed in a consecutive group of 1047 patients with coronary artery disease that patients who were able to stop smoking were rewarded with an averaged prolonged gain in life of three years (van Domburg, personal communication). Importantly this effect was more pronounced than any other pharmaceutical intervention.

As stated in the paper by Wilson et al. in the current issue of the Journal, awareness of current clinical guidelines for the treatment of patients with PAD should be improved among those who provide care to these patients. Physicians should be aware of the cardiac risks of their patients with PAD and treat them accordingly. Not developing new guidelines for patients with PAD but implementing current guidelines should be the main focus. Suggestions to improve the implementation of these guidelines range from courses for continuous medical training to a financial incentive when patients are treated according to the guidelines. Unfortunately, the most effective way to implement these guidelines and improve long term patient’s outcome still remains to be determined.

References


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