Leading article

Attitudes to supervised exercise therapy

L. N. M. Gommans[1,2] and J. A. W. Teijink[1,2]

[1]Department of Vascular Surgery, Catharina Hospital, Michelangelolaan 2, 5623 EJ, Eindhoven, and [2]Care and Public Health Research Institute (CAPHRI), Maastricht University, Maastricht, The Netherlands (e-mail: joep.teijink@catharinaziekenhuis.nl)

Published online in Wiley Online Library (www.bjs.co.uk). **DOI:** 10.1002/bjs.9880

The New York Times recently highlighted the inappropriate use of invasive interventions for patients with intermittent claudication (IC)[1]. The article questioned conflicts of interest and motives of doctors performing these interventions in view of the potential harm for patients and unnecessary costs for the healthcare system.

IC is a feature of systemic atherosclerosis and affects more than 200 million people worldwide[2]. Patients experience muscle discomfort in their legs, elicited by exercise, that resolves after a period of rest. IC comes with serious health risks, as a 5-year mortality rate of 20 per cent has been reported[3]. Supervised exercise, therapy (SET) is the first-choice symptomatic treatment, recommended by international guidelines[4,5]. Unfortunately, SET has been largely underused in clinical practice. There seem to be three reasons why this safe and cost-effective treatment has not been widely adopted.

SET places a particular burden on patients in terms of effort and responsibility, rather than offering a quick fix for their discomfort, so there is some patient resistance to it. A second category of answers involves clinicians. Self-interest of doctors performing interventions that involve fee-for-service is undoubtedly a contributor. However, the most important factors hindering the wider implementation of SET are lack of access and reimbursement issues. As a result, even clinicians who fully endorse SET as initial treatment for IC may end up performing invasive interventions if their patients cannot find a qualified SET practitioner. In addition, incipient SET initiatives are prevented from coming to fruition by a lack of funding. A highly successful supervised exercise programme in Wales was recently terminated on this basis[6]. This is in striking contrast to the absence of significant budgetary restrictions related to invasive procedures.

To overcome the problems of limited access, specialized physiotherapists in the Netherlands founded ClaudicatioNet, a nationwide network providing SET in a community-based setting. Nationwide coverage was attained at the beginning of 2014, and to date ClaudicatioNet includes 1552 fully trained physiotherapists. Participating physiotherapists have a portfolio on the network's national website (www.claudicationet.nl) and meet various participation criteria (obtaining continuing medical education points, attending a compulsory annual symposium with workshops, a 3-day course in motivational interviewing, and courses on smoking cessation and dietary advice). A web-based referral system helps patients find the nearest ClaudicatioNet physiotherapists. The referral system by itself guarantees that SET is actually started within 5 working days. A pilot study of this web-based referral system showed that patients had their intake and first training a mean of 2·2 days after referral.

Despite this, ClaudicatioNet also faces reimbursement issues. Healthcare insurers seem reluctant to support SET on the basis of uncertainty on the optimal form of SET, lack of improvement in quality of life, poor patient compliance with SET, and potential loss of cost-effectiveness. Although there are some uncertainties about the effectiveness of SET in particular groups of patients (women, diabetics), some of these arguments are specious.

Different SET protocols (such as leg cranking and strength training) have been shown to be effective, and there is agreement regarding the intensity of SET. Three 30-min sessions for 2–3 months are recommended[7]. As with any treatment, further research and greater knowledge might be used to identify those patients who benefit from an adapted SET programme, for instance. The recent Claudication: Exercise *versus* Endoluminal Revascularization (CLEVER) trial[8] has already disproved poor adherence to an exercise programme: 71 per cent of participants attended at least 70 per cent of the sessions. Regular telephone calls after ending a formal SET programme have also been shown to help retain excellent compliance with home-based exercise[8].

It has been suggested that some patients with IC may not be suitable for SET, based on the presence of co-morbidities and increased risks[9]. There is, however, no evidence to support such claims, and a recent review[10] showed that adverse events hardly ever occur during SET. With almost 15 years of experience with SET, the authors cannot name any medical condition that would preclude

patients with IC from initial participation in a SET programme but would allow them to benefit from an immediate invasive intervention. The 18-month results of the recently published CLEVER trial[8] support this, showing that in claudicants with aortoiliac stenosis SET and invasive revascularization were equally effective.

The positive influence of SET on the entire vascular system and cardiorespiratory performance significantly reduces long-term cardiovascular morbidity and mortality. In addition, SET improves balance – a further benefit for advocating SET as the primary treatment for IC[11–14].

While not disputing the value of invasive interventions, SET programmes should be available for every patient with IC, with invasive procedures restricted to those who are unresponsive to SET. If SET fails, the patient can still undergo an intervention, albeit 6–12 weeks later. Even this may be advantageous compared with primary invasive intervention, as recent evidence[15] indicates that stenting is likely to be more cost-effective when combined with SET, reflecting the effects of regular exercise. The financial benefits of SET are considerable, and a stepped-care approach would have large savings in every type of healthcare system. The ClaudicatioNet concept could provide a blueprint for the implementation of structured SET programmes in all countries where peripheral vascular disease is prevalent. Motivated doctors and willing healthcare purchasers are needed in order to give SET a chance to work, and for patients to reap the benefits.

Disclosure

J.A.W.T. is chairman and co-founder of ClaudicatioNet, a charitable foundation with no financial benefits for its founders or board members. The authors declare no conflict of interest.

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