

All Cause Chronic Widespread Pain is Common in Patients with Symptomatic Peripheral Arterial Disease and is Associated with Reduced Health Related Quality of Life

H. Lindgren ^{a,b,*}, A. Gottsäter ^{a,c}, P. Qvarfordt ^b, S. Bergman ^{a,d,e}

^a Department of Clinical Sciences, Faculty of Medicine, Lund University, Lund, Sweden

^b Department of Surgery, Helsingborg Hospital, Helsingborg, Sweden

^c Vascular Centre, Skåne University Hospital, Malmö, Sweden

^d Primary Health Care Unit, Department of Public Health and Community Medicine, Institute of Medicine, The Sahlgrenska Academy, University of Gothenburg, Sweden

^e Spenshult Research and Development Centre, Halmstad, Sweden

WHAT THIS PAPER ADDS

The prevalence of chronic widespread pain (CWP) in patients with peripheral arterial disease (PAD) is high and is strongly associated with reduced health related quality of life (HRQoL). Treatment leads to significant improvement but patients with CWP still have a significant reduction in HRQoL after treatment. The results suggest taking CWP measured by a pain manikin into account when evaluating disease severity, treatment options, and effect of treatment in PAD.

Objective: Invasive treatment of peripheral arterial disease (PAD) does not always lead to improvement, as concomitant diseases might affect walking ability and health related quality of life (HRQoL). Patients with chronic widespread pain (CWP) report worse outcome when treated for cancer and rheumatic diseases. The aim of the present study was to evaluate the prevalence of CWP and its potential association with reduced HRQoL in patients treated for PAD.

Method: This was a longitudinal cohort study conducted between May 2011 and April 2014, including patients with planned invasive treatment of symptomatic PAD at two vascular clinics in Sweden. In 240 patients with planned treatment of PAD, HRQoL and pain distribution were assessed using the Short Form 36 Health Survey (SF-36), EuroQoL 5 dimensions (EQ5D), Walking Impairment Questionnaire (WIQ), and a questionnaire concerning musculoskeletal pain (Epipain manikin) before and 12 months after treatment. HRQoL was compared in patients with no chronic pain (NCP), with chronic regional pain (CRP), and with CWP. The SF-36 subscales PF, VT, and MH, representing important aspects of HRQoL (physical function, vitality, and mental health), were the main outcome measures.

Results: Before treatment 22 (10%) patients reported NCP, 133 (61%) CRP, and 64 (29%) CWP. These proportions did not differ between patients with intermittent claudication (IC) and critical limb ischemia (CLI, $p = .150$). CWP was more common in women than in men (36% vs. 24%, $p = .035$.) HRQoL improved significantly after treatment in all groups, but was still significantly reduced in CWP patients. CWP predicted worse outcome in HRQoL after treatment.

Conclusion: CWP is common and is strongly associated with reduced HRQoL in patients with PAD. Treatment led to significant improvement, but patients with CWP still had significantly reduced HRQoL after treatment. CWP measured by a pain manikin should therefore be taken into account when evaluating disease severity, treatment options, and effect of treatment in PAD.

© 2016 European Society for Vascular Surgery. Published by Elsevier Ltd. All rights reserved.

Article history: Received 16 September 2015, Accepted 6 May 2016, Available online 22 June 2016

Keywords: Chronic widespread pain, Health related quality of life, Peripheral arterial disease

* Corresponding author. Department of Surgery, Helsingborg Hospital, S-251 87 Helsingborg, Sweden.

E-mail address: hans.lindgren@skane.se (H. Lindgren).

1078-5884/© 2016 European Society for Vascular Surgery. Published by Elsevier Ltd. All rights reserved.

<http://dx.doi.org/10.1016/j.ejvs.2016.05.004>

INTRODUCTION

Peripheral arterial disease (PAD) occurs in 10–25% of individuals aged over 55 years and the prevalence increases with age.¹ Symptoms range from pain in the calf on exertion (intermittent claudication, IC) to critical limb ischemia (CLI) with pain at rest and ultimately tissue loss. Most PAD

patients (70–80%) are asymptomatic, and only a minority will ever need revascularization or amputation.¹ Invasive treatment by surgical or endovascular revascularization is not always successful; for example, it does not lead to improvement in 25% of patients treated invasively for infrainguinal IC.² Comorbidities such as diabetes, ischemic heart disease, and obstructive pulmonary disease are associated with increased cardiovascular risk. Along with other diseases of the spine, hips, knees, and other musculoskeletal pain, walking capacity can be influenced in patients with PAD, contributing to the severely reduced health related quality of life (HRQoL) reported in this condition.^{3–5} Concomitant medical disorders also hamper results of recanalization, which have also been shown to depend on severity of disease and gender.⁵

Chronic pain is common in the general population, and chronic musculoskeletal pain is reported by 35–50% of an adult population.^{6,7} These figures include chronic regional pain (CRP) and chronic widespread pain (CWP), with CRP being more common with a prevalence of 24%, whereas CWP occurs with a prevalence of 11%.^{7,8} CWP may reflect musculoskeletal disorders or other underlying organic diseases, which are, however, reported only in a small proportion of CWP patients.⁴ CWP is also known to have a great impact on HRQoL,⁴ and is associated with hospitalization because of serious medical conditions.⁹ Some authors even consider chronic pain (especially CWP) to be a disease entity in itself, partly explained by central sensitization of the nervous system.^{10,11}

Furthermore, patients with CWP are reported to experience worse outcome when treated for numerous medical disorders such as cancer and rheumatic diseases.^{12–15} It is not known to what extent CWP is present in patients with PAD or how it influences HRQoL in these patients. The aim of this study was to evaluate the prevalence of CWP and its potential association with reduced HRQoL in patients treated invasively for PAD.

MATERIAL AND METHODS

Between May 2011 and April 2014 all patients with a planned hospitalization for invasive treatment of symptomatic PAD (IC or CLI) at two vascular clinics in southern Sweden (Helsingborg and Malmö) received a postal invitation to participate in a longitudinal cohort study by responding to the questionnaires described below 2 weeks before hospital admission and 12 months after treatment. Although all PAD patients at the two study centers had been prescribed best medical treatment and all patients with IC had been recommended exercise training, invasive treatment was considered necessary. Of the 480 patients invited, 240 (50%) accepted and constitute the study cohort. The survey comprised the following validated questionnaires: Short Form 36 Health Survey (SF-36, rating HRQoL 0–100 from worst to best in eight domains),¹⁶ EuroQoL 5 dimensions (EQ5D, rating health related quality of life states 0–1 from worst to best),¹⁷ Walking Impairment Questionnaire (WIQ, rating 0–100 from worst to

Table 1. Characteristics of 240 patients scheduled for treatment of peripheral arterial disease (PAD), intermittent claudication (IC), or critical limb ischemia (CLI).

	IC	CLI	All PAD
Age, years	70.8 (7.1)	75.3 (9.5)	71.8 (7.9)
Gender			
Male	100 (54.3)	26 (46.4)	126 (52.3)
Female	84 (45.7)	30 (53.6)	114 (47.5)
Diabetes mellitus	48 (26.1)	24 (42.9)	72 (30.0)
Smoking			
Yes	57 (31.0)	14 (25)	71 (29.6)
No	110 (59.8)	35 (62.5)	145 (60.4)
Previous myocardial infarction	39 (21.2)	14 (25.0)	53 (22.1)
Previous stroke	8 (4.3)	6 (10.7)	14 (5.8)
BMI	26.2 (4.7)	25.4 (4.7)	26.0 (4.7)
Systolic blood pressure, mmHg	155 (22.8)	155 (26.0)	155 (23.5)
Ankle brachial index (ABI)	0.57 (0.22)	0.49 (0.19)	0.55 (0.22)
Self reported walking distance, m	148 (167.5)	90 (62.5)	141 (159.8)
B-hemoglobin, g/L	135 (28)	124 (16)	132 (26)
S-creatinine, μ mol/L	87.4 (32.4)	99.0 (46.4)	90.1 (36.4)
P-C-reactive protein, mg/L	14 (31.7)	13 (21.5)	13 (29.4)
P-total cholesterol, mmol/L	4.1 (1.1)	4.2 (1.0)	4.1 (1.0)
P-triglycerides, mmol/L	1.8 (1.1)	1.6 (0.5)	1.8 (1.0)
P-HDL cholesterol, mmol/L	1.4 (0.8)	1.4 (0.5)	1.4 (0.8)
P-LDL cholesterol, mmol/L	2.3 (0.8)	2.3 (0.9)	2.3 (0.8)
P-glucose, mmol/L	7.0 (2.2)	7.7 (3.9)	7.2 (2.7)
Antiplatelet and anticoagulant treatment	178 (96.7)	54 (96.4)	232 (96.7)
Statin treatment	174 (95.1)	48 (85.7)	222 (92.9)
Antihypertensive treatment	154 (83.7)	47 (83.9)	201 (83.8)

Data are given as mean (SD) or *N* (%).

Data on BMI were available in 205 (85%) patients, systolic blood pressure in 236 (98%) patients, ABI in 201 (83%) patients, walking distance in 195 (81%) patients, smoking in 216 (90%) patients, laboratory data in 101–238 (42–99%) patients, and medication in 222–239 (92–99%) patients. Other data were available in all 240 patients.

best),¹⁸ and the Epipain questionnaire concerning musculoskeletal pain.⁷ SF-36 consists of eight domains (Physical Function [PF], Role Physical [RP], Bodily Pain [BP], General Health [GH], Mental Health [MH], Role Emotional [RE], Social Function [SF], Vitality [VT]). PF, MH, and VT were selected as the main outcome measures in this study, representing different important aspects of HRQoL such as physical function, vitality/fatigue, and mental health. The validated Epipain questionnaire consists of a key question on the experience of pain lasting more than 3 months and a drawing of the body (pain manikin) with 18 predefined body regions.⁷ Based on the key question and the pain manikin, patients with chronic widespread pain (CWP) were identified as those reporting pain in two contralateral body quadrants (right or left and above or below the waist) and

Download English Version:

<https://daneshyari.com/en/article/5957170>

Download Persian Version:

<https://daneshyari.com/article/5957170>

[Daneshyari.com](https://daneshyari.com)