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Recruitment to Exercise Programmes: Challenges in the Peripheral Arterial Disease Population

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Recruitment to Exercise Programmes: Challenges in the Peripheral Arterial Disease Population

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INTRODUCTION

Current evidence suggests that 27 million people in Europe and North America have peripheral arterial disease (PAD)[1]. Although only 3% of patients with intermittent claudication (IC) require amputation, a significant number will require hospital admission and other surgical intervention for IC and associated cardiac and cerebrovascular complications. An important aim of exercise therapy in the peripheral arterial disease population is to decrease cardiovascular risk factors and consequent morbidity and mortality. Several studies have demonstrated that exercise programmes result in significant improvements in walking distances but the long-term benefits are unknown. A randomised controlled trial is currently being conducted in Beaumont Hospital to determine the effects of a supervised exercise programme on quality of life, risk factor modification and morbidity and mortality in patients with PAD.

AIM

This is a report of ongoing recruitment to the trial whereby participants are randomly allocated to either a control or an exercise group. The aim is to determine the uptake to a 12 week (twice weekly) supervised exercise programme and to identify factors which promote and impede uptake.

METHODOLOGY

Ethical approval was obtained from Beaumont Hospital Ethics Committee and the study commenced in November 2006.

Inclusion criteria are:

- Fontaine Stage II claudication diagnosed by a history of leg pain on exercise relieved by rest and an ankle/brachial index (ABI) < 0.9 at rest
- Stable intermittent claudication x 3 months
- Residing within geographical proximity to Beaumont Hospital

Exclusion criteria are:

- Fontaine Stages I, III and IV
- Co-existing clinical condition which precludes participation in an exercise programme including unstable cardiorespiratory disease, neurological /orthopaedic limitation, poorly controlled hypertension, active major medical problem[2].
- Acute onset or within the first months of onset of claudication

Potential participants who meet the inclusion criteria are invited to participate in the study. Following informed consent, participants complete a graded treadmill exercise test conducted in the Cardiology Department to determine the participant's exercise status, possible underlying cardiac disease and to outrule any contraindication to participation in an exercise programme.

RESULTS

During the period November 2006 to November 2007, 394 patients (residing within geographical proximity to Beaumont Hospital) with ABIs < 0.9 were identified from the Non-Invasive Vascular Laboratory Segmental Pressures records. Of the 394 patients identified, 271 medical charts were available for review. Seventy-nine of the 271 patients (29%) met the inclusion criteria. One hundred and eighty –seven patients were excluded. Reasons for exclusion are illustrated in Figure 1.

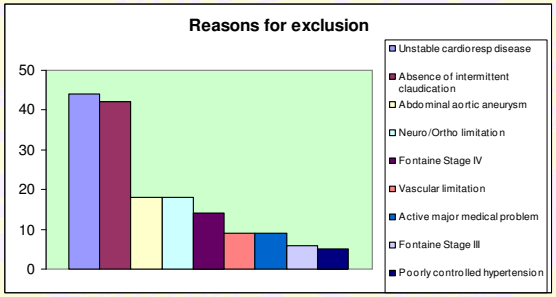

Figure 1. Reasons for Exclusion

Of the 79 patients who were eligible to participate, 34 declined. The primary reason for non-participation was a lack of interest. Additional reasons included work, carer responsibilities, too many hospital appointments and transport difficulties. Forty – five patients agreed to participate and were scheduled for treadmill exercise testing prior to enrolment in the study. Exercise testing outcomes are illustrated in Figure 2.

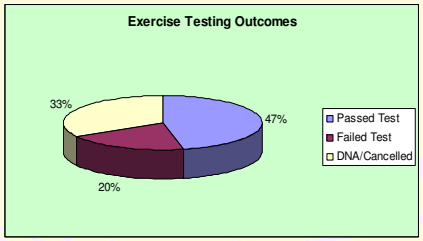

Figure 2. Exercise Testing Outcomes

DISCUSSION

Although the risk factors for PAD are the same as those for coronary artery disease, individuals with PAD face considerable challenges to exercise due to their symptomatology. Walking is associated with the onset of leg pain and frequent rest periods during walking are required to relieve the pain. To date the recruitment profile in this study population is similar to the recruitment profile for exercise programmes and cardiac failure (CF) populations with a high level of co-morbidity identified[3]. This highlights the importance of early detection of IC in primary care. The reasons for non-participation in this study are also similar to those in the CF populations i.e. lack of motivation, work/time conflicts, domestic responsibilities and transport difficulties.

CONCLUSION

Recruitment to this study is ongoing. However these results highlight the significant recruitment challenges presented by this clinical population. In addition to the traditional barriers to recruitment, barriers in this patient population also include a reluctance to exercise due to leg pain, an acceptance of reduced mobility as part of aging and a fear of exercise equipment.

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