Pole Striding Exercise

Pole Striding Exercise and Vitamin E for Management of Peripheral Vascular Disease.

CLINICAL SCIENCES


Abstract:


Purpose:

The purpose of this investigation was to evaluate the efficacy of Pole Striding exercise (a form of walking that uses muscles of the upper and lower body in a continuous movement similar to cross-country skiing) and vitamin E (α-tocopherol) to improve walking ability and perceived quality of life (QOL) of patients with claudication pain secondary to peripheral arterial disease (PAD).

Methods: Fifty-two subjects were randomized into four groups: Pole Striding with vitamin E (N = 13), Pole Striding with placebo (N = 14), vitamin E without exercise (N = 13), and placebo without exercise (N = 12). The dose of vitamin E was 400 IU daily. Only the Pole Striding with vitamin E and Pole Striding with placebo groups received Pole Striding instruction and training. Assignment to vitamin E or placebo was double blind. Subjects trained three times weekly for 30-45 min (rest time excluded). Individuals in vitamin E and placebo groups came to the laboratory biweekly for ankle blood-pressure measurements.

Results:

Results of this randomized clinical trial provide strong evidence that Pole Striding significantly (P < 0.001) improved exercise tolerance on the constant work-rate and incremental treadmill tests. Ratings of perceived claudication pain were significantly less after the Pole Striding training program (P = 0.02). In contrast, vitamin E did not have a statistically significant effect on the subjects’ ratings of perceived leg pain (P = 0.35) or treadmill walking duration (P = 0.36). Perceived distance and walking speed (Walking Impairment Questionnaire) and perceived physical function (Rand Short Form-36) improved in the Pole Striding trained group only (P < 0.001, 0.022 and 0.003, respectively).

Conclusion:

Pole Striding effectively improved the exercise tolerance and perceived QOL of patients with PAD. Little additional benefit to exercise capacity was realized from vitamin E supplementation.

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