CORRESPONDENCE

Nordic Walking in Patients with Peripheral Artery Disease

We read, with great interest, the article entitled "Systematic Review and Meta-analysis of Clinical Trials Examining the Benefit of Exercise Programmes Using Nordic Walking in Patients With Peripheral Artery Disease" by Golledge et al.[1]

Although they reported no significant advantage to Nordic walking (NW) over standard exercise, other individual studies have suggested otherwise.[2–4] Girold et al. and Spafford et al. concluded that NW significantly improved walking distance after four and 12 weeks, respectively.[3,4] This discordance may explain the significant quantitative (I^2 54–99%), and qualitative heterogeneity between studies,[1] arising from control differences (medical therapy, supervised treadmill walking) and age.[2] In addition, mean walking distance was estimated by multiplying the treadmill speed by walking time for some studies;[2] however, Table 1 highlights an alternative method, as multiplying summary effects do not give the summary quotient or product.

Table 1. Hypothetical example of deriving walking distance from multiplication of exercise duration and walking

Study	Exercise duration (s)	Walking speed (m/s)	Walking distance (m)
A	1	2	2
B	2	4	8
C	3	6	18
D	4	8	32
E	5	10	50
F	6	12	72
G	7	14	98
H	8	16	128
I	9	18	162
J	10	20	200
Average	5.5	11	77

Product of average exercise duration and average walking = 5.5 s × 11 m/s = 60.5 m; however, arithmetic average of actual walking distance is 77 m.

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Response to 'Re. Systematic Review and Meta-analysis of Clinical Trials Examining the Benefit of Exercise Programs Using Nordic Walking in Patients with Peripheral Artery Disease'

We thank Dr. Ian Wee and colleagues for their letter regarding our recent systematic review on Nordic walking for peripheral artery disease.[1] As was pointed out in the review,[1] the findings of prior clinical trials of Nordic walking in patients with peripheral artery disease have varied. One trial reported that patients randomised to a supervised programme of standard walking had better outcomes than those allocated a supervised programme of Nordic walking.[2] This contrasts with the findings from other trials, which reported no difference or better outcomes from Nordic walking.[3–6] Importantly, all the included trials had small sample sizes and when findings were summarised in a meta-analysis there was no significant advantage of Nordic walking over standard

walking. As pointed out by Dr. Ian Wee *et al*. some of the treadmill data needed to be converted from time to distance, but this did not have any important influence on the findings of the analysis, as data from six minute walk tests (which did not require conversion) showed similar findings.[1] In general, meta-analyses of multiple randomised trials are considered to provide more reliable evidence than findings from a single randomised trial.

As pointed out in the discussion,[1] this meta-analysis does not rule out a small or moderate benefit (or detriment) of Nordic walking vs. standard walking as prior clinical trials have been too small to rule this out. Similar to Dr. Wee et al., we are hopeful that a much larger clinical trial of Nordic walking will be conducted to reliably assess any such moderate treatment effects.

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