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Resistance training for hot flushes in postmenopausal women

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Context

Hot flushes and night sweats (vasomotor symptoms) affect most women during the menopausal transition and are an important reason for decreased quality of life (QoL) in mid-aged women. Estrogen therapy is effective but usage is limited due to contraindications and side effects. Observational studies suggest that women who exercise regularly have fewer hot flushes, but this has not been confirmed in a randomised controlled trial (RCT). Using resistance training (RT) as an intervention, this study aimed to fill the gap in alternative treatments to reduce vasomotor symptoms in postmenopausal women.

Objective

To determine the effect of a 15-week standardised RT program on vasomotor symptoms in postmenopausal women.

Methods

Open RCT; participants were randomised to a RT intervention or unchanged physical activity. Hot flushes were assessed using daily self-registered diaries and classified as mild, moderate or severe.

Patients

Sixty-five postmenopausal women with at least 28 moderate to severe hot flushes per week were included, 58 completed the trial. All had to be physically inactive at baseline, i.e. engage in a maximum of 225 minutes physical activity per week (maximum 75 minutes vigorous intensity activity). Mean physical activity at baseline was 147 minutes/week (intervention group) and 153 minutes/week (control group).

Interventions

The intervention consisted of a standardised RT program with eight exercises performed with 15-20 repetitions (week 1-3) or 8-12 repetitions (week 4-15) in two sets three times/week. Loads were tailored individually from 8RM strength tests and increased progressively by a physiotherapist.

Main Outcome Measures

The primary outcome was change in frequency of moderate and severe hot flushes from baseline to 15 weeks and was compared between the two groups.

Results

Moderate and severe hot flushes decreased significantly more ($p<0.001$) in the intervention group (from 7.5 to 4.2/day; 46.8% decrease) than in the control group (from 6.7 to 6.3/day; 5.9% decrease). Hot flushes decreased by ?50 % in 14 of 29 participants in the intervention group and one of 28 in the control group. Mean completed RT sessions per week was 2.2.

Conclusion

A 15-week RT program significantly decreased moderate and severe hot flushes among postmenopausal women and could be an effective treatment option to alleviate symptoms.

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