

MEETING ABSTRACT

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EHMTI-0157. Specific strength training compared with interdisciplinary counselling for girls with tension-type headache – a randomised controlled trial

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Background

Childhood tension-type headache (TTH) is a prevalent and debilitating condition for the child and family. Low-cost non-pharmacological treatments are usually the first choice of professionals and parents. The study examined the outcomes of specific strength training for girls with TTH.

Methods

Forty-nine girls 9-18 years with TTH were randomised to patient education programmes with 10 weeks of strength training compared with counselling by nurse and physiotherapist. Primary outcomes were headache frequency, intensity and duration; secondary were neck-shoulder muscle strength, aerobic power and pericranial tenderness, measured baseline, after intervention and at 12 weeks follow-up. HRQOL questionnaires were assessed at baseline.

Results

For both groups headache frequency decreased significantly, $p=0.001$ and likewise for duration $p=0.022$, with no significant between-group differences. The odds of having headache a random day decreased during 22 weeks by 0.65 (0.50-0.84) (OR (95%CI)). For both groups neck extension strength decreased significantly with a decrease in cervicothoracic ratio to 1.7, indicating a change in muscle balance. In the training group shoulder strength increased $\geq 10\%$ in 5/20 girls and estimated VO₂ max increased $\geq 15\%$ for 4/20 girls.

Conclusions

Both training and counselling lead to headache reduction. Adjusting muscle-balance seems to precede strength gains. Exercising might lead to important changes in the child's physical capability and health. Restructuring patient education and examining dose-response of exercising is recommended.

No conflict of interest.

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