

WHOLE BODY VIBRATION AND FIBROMYALGIA: INFLUENCE ON MUSCLE PERFORMANCES

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Introduction

Whole-body vibration (WBV) is a neuromuscular training method that has rapidly gained in popularity in health and fitness centres. However, limited data are available about the benefits of WBV on muscular performances.

Aim

The aim of the study was to investigate the effects of WBV in the treatment of fibromyalgia patients. In that purpose, we have assessed tolerance of WBV sessions and consequences on physical function and quality of life in such patients.

Patients and methods

Eleven women (41 ± 8 years old, 69 ± 14 kg) suffering from fibromyalgia (FM) participated in the study.

During a 5-week experimental period, all patients performed static exercises on a vibration platform (30-35 Hz, 1.5-3 mm, Gymna Fitvibe Medical[®]), three times a week.

Outcome measures were recorded by means of the chair rising test, isokinetic measurements (strength and fatigue protocols), a static endurance test and the sit and reach test. Pain was evaluated by means of a Visual Analogue Scale (VAS) and a dolorimeter. Other endpoints were the Fibromyalgia Impact Questionnaire score (FIQ), the Fatigue Severity Scale score (FSS), the Hospital Anxiety and Depression score, the Borg scale and the Satisfactory score.

Results

Benefits of aerobic rehabilitation in fibromyalgia patients have been documented previously [1]. In our study, muscle performance improved in FM patients at the end of the WBV training programs. Significant positive effects with regard to pain (VAS) and penibility (Borg) scores were measured. The results of the satisfaction questionnaire indicated that the patients were favourable to benefit from additional WBV sessions.

Conclusion

This study confirms that fibromyalgia patients can perform WBV exercises in safe conditions. The WBV could be incorporated into the multidisciplinary approach proposed in the treatment of FM patients.

References

- [1] Maquet D, Croisier JL, Demoulin C, Faymonville M, Crielaard JM. Value of aerobic rehabilitation in the management of fibromyalgia. *Rev Med Liege*, 61(2):109-16, 2006.