

# AB1366-HPR THE EFFECTS OF LAND AND WATER BASED MULTIDIMENSIONAL FUNCTIONAL MOBILITY EXERCISES ON PULMONARY FUNCTIONS IN ANKYLOSING SPONDYLITIS PATIENTS

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**Background:** Pulmonary manifestations are common in ankylosing spondylitis (AS) yet there is not enough evidence about the results of different interventions on pulmonary functions.

**Objectives:** The aim of this study was to evaluate the pulmonary effects of land and water based multidimensional functional mobility exercises on pulmonary functions in AS patients.

**Methods:** This is a single-blinded, randomized and experimental study conducted in outpatient clinic and thermal center. A total of 38 patients with definite ankylosing spondylitis according to the modified New York criteria were recruited for the study. Patients were randomly allocated to aquatic (AG) and land (LG) exercise group twice in a week for 8 weeks. Pulmonary Function Tests (PFT), maximal inspiratory mouth pressure (MIP), and maximal expiratory mouth pressure (MEP) were measured before and after the intervention.

**Results:** 3 patients from AG and 6 from LG missed 4 sessions consecutively. In AG, PEF (p=0.004), VC (p=0.025), MVV (p=0.006) and MIP (p=0.001) improved significantly on the other hand in LG FEV1/FVC (0.049), PEF (p=0.007) and MVV (p=0.004) significantly increased.

**Conclusion:** Performing multidimensional functional mobility exercises in water and on land could have different results. Exercising in water could have additional benefits such as increasing inspiratory muscle strength.

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# AB1367-HPR EFFECTIVENESS OF THE HYPERBARIC TREATMENT ON THE PERCEIVED PAIN, FATIGUE AND FUNCTIONALITY OF WOMEN WITH FIBROMYALGIA

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**Background:** Fibromyalgia (FM) is a chronic pain syndrome accompanied by other symptoms such as fatigue or altered functionality<sup>1</sup>. One of the most common non-pharmacologic treatment is physical exercise because of its known positive influence on pain as a consequence of the physical condition improvement.<sup>2</sup> However, they use to present a lack of adherence to this type of therapeutic programs may be attributable to post-exercise pain<sup>3</sup>. For this reason, alternative approaches that do not involve physical efforts, such as hyperbaric therapy, may be effective to reduce pain, fatigue or functionality in women with FM.<sup>4</sup>

**Objectives:** To compare the effectiveness of hyperbaric therapy and physical exercise on pain, fatigue and functionality in women with FM.

**Methods:** A randomized control trial was conducted. 28 women with FM were divided in two intervention groups: One group, composed of 14

women, received a low-intensity physical exercise program twice a week for 8 weeks (PEG). The other group received 40 sessions of hyperbaric treatment, 5 times per week (HBTG). To determine the effect of these therapeutic programs, the perceived pain was assessed with an analogue visual scale. Further, the fatigue was measured with the Borg scale and the covered walked distance with The Six minutes walk test. The measurements were conducted two times, before and one week after finishing the treatment. The effect of the treatments was statistically analyzed with a mixed factorial ANOVA with the between-subject factor called 'group' (categories: PEG and HBTG) and with the within-subject factor called 'intervention' (categories: pre and post-intervention).

**Results:** Our study shows that hyperbaric treatment significantly improved functionality and reduced the levels of pain and fatigue (Table 1). The physical exercise intervention improved functionality, but this program could not reduce the experienced intensity of pain nor the perceived fatigue (p>0.05).

**Abstract AB1367HPR Table 1.** Effect of the physical exercise program and hyperbaric therapy on pain, fatigue and functionality.

		Pre-intervention	Post-intervention
Pain	PEG	6.21 (2.29)	5.57 (2.24)
HBTG	7.43 (1.70)	5.07 (2.50)*	
Fatigue	PEG	6.86 (2.82)	7.21 (2.52)
	HBTG	7.79 (2.15)	6.5 (2.24)*
Distance	PEG	489.21 (76.39)	516.64 (71.58)*
	HBTG	507.14 (67.46)	566.79 (71.55)*

Data are shown as mean (SD). PEG: physical exercise group; HBTG: hyperbaric treatment group.

**Conclusion:** Both hyperbaric therapy and physical exercise achieved an improvement in the functionality. Nevertheless, only the hyperbaric therapy achieved a decrease in perceived pain and an improvement in the perceived fatigue.

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# AB1368-HPR ENHANCED ROLE OF NURSES AND OTHER HEALTHCARE PROFESSIONALS (HCPS) IN THE CARE OF RHEUMATOID ARTHRITIS AND ASSOCIATED COMORBIDITIES

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**Background:** Long-term morbidity and mortality in patients with rheumatoid arthritis (RA) are increased<sup>(1)</sup> due to the increased risk of comorbidities