

After the demographic characteristics and disease related data of the individuals were recorded; for the functional status, the Bath Ankylosing Spondylitis Functional Index (BASFI), Bath Ankylosing Spondylitis Disease Activity Index (BASDAI), Bath Ankylosing Spondylitis Metrology Index (BASMI) were used. Six-minute walk test(6MWT) was used for the assessment of aerobic capacity. Group I was attended 40 min aerobic exercises sessions (5-min warm up, 30-min treadmill, 5-min cool down), plus supervised spinal mobility exercises and Group II was attended only supervised spinal mobility exercises per day, 3 times a week, for 12 weeks. Data were analysed Wilcoxon and Mann Whitney U Test.

Results: After training aerobic exercise group, BASMI ($p=.021$), BASDAI ($p=.002$) and 6MWT($p=.036$) results were statistically significant, while the difference was not significant in BASFI ($p=.068$). It was observed that there was no significant difference in the after training period in the supervised exercises group. BASDAI, in group aerobic exercise group had improved more significantly when compared to supervised exercises group.

Conclusion: As a result of the study, it was noted that when aerobic exercise training applied together with the supervised exercises in ankylosing spondylitis patients, effectiveness on mainly disease activity, spinal mobility and aerobic capacity was increased. Key words: Ankylosing spondylitis, aerobic exercise training, supervised exercised.

REFERENCES:

- [1] Pulmonary System Limitations To Endurance Exercise Performance In Humans. *Exp Physiol.* 2012;97(3):311–318.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.7167

FRI0704-HPR THE EFFECTS OF CLINICAL PILATES TRAINING IN PATIENTS WITH FIBROMYALGIA: A RANDOMIZED CONTROLLED TRIAL

Berna Cagla Caglayan¹, Aylin Keskin¹, Elif Gur Kabul¹, Bilge Basakci Calik¹, Umnuhan Bas Aslan¹, Ugur Karasu². ¹Pamukkale University, Physical Therapy and Rehabilitation, DENIZLI, Turkey; ²Pamukkale University, Department of Rheumatology, DENIZLI, Turkey

Background: Fibromyalgia (FM) is a chronic condition characterized by widespread pain, sleep disorders, fatigue and reduced quality of life. Exercise is commonly recommended in the approach of people with FM. Researches support some forms of exercises reduce fibromyalgia symptoms and improve quality of life. Pilates recently has become popular form of exercise which focused core strengthening, posture and coordination of breathing with movement. Studies showed that clinical pilates can be used to provide improvements in patients with FM. However there is no study which compared clinical pilates-based supervised exercises and group exercises on FM patients in literature.

Objectives: The first aim of the study was to investigate the effects of clinical pilates training, secondly to compare the effects of supervised exercises and group exercises training on disease activity, functional status, anxiety, quality of life and biopsychosocial status in individuals with FM.

Methods: 42 voluntary women diagnosed with FM according to 2010 American College of Rheumatology Criteria in the age range of 35-65, who applied to Pamukkale University Department of Internal Medicine, Department of Rheumatology were included in the study. Individuals were randomly divided into two groups, as there would be supervised exercises (Group I, $n=16$, mean age 55.93 ± 8.03) and group exercises (Group II, $n=26$, mean age 47.80 ± 5.87). All participants attended 60-min exercises sessions (10-min warm up, 40-min clinical pilates exercises, 10-min cool down) per day, 2 times a week, for 6 weeks. The training was applied by same physiotherapist who received clinical pilates certificate by an experienced Pilates instructor and physiotherapist. After the demographic characteristics and disease related data of the individuals were recorded; disease activity were assessed with the Fibromyalgia Impact Questionnaire (FIQ), functional status with Health Assessment Questionnaire (HAQ), anxiety with Beck Anxiety Inventory (BAI), quality of life with Short Form 36 (SF-36) scale and biopsychosocial status with the Cognitive Exercise Therapy Approach Scale (BETY). All outcomes were assessed just before and 6 weeks after training. The data were statistically evaluated by the Wilcoxon test and Mann-Whitney Test.

Results: There were no significant differences in baseline demographics between the Group I and Group II ($p>0.05$). After 6 weeks, showed for both groups a statistically significant improvement in FIQ, SF-36 (physical and mental component) and BETY also Group II showed a statistically

significant improvement in HAQ and BAI ($p<0.05$). When both group were compared, a significant difference was observed in FIQ ($p<0.05$) in Group II, whereas no statistical differences were found in other outcomes ($p>0.05$)

Conclusion: This study showed that clinical pilates training which were applied 6 weeks, resulted in improvement on disease activity, functional status, anxiety, quality of life and biopsychosocial status in individuals with FM. Besides group exercises training provides social interaction so we suggest clinical pilates as an effective and safe method for people with FM.

REFERENCES:

- [1] Wolfe F, Ross K, Anderson J, Russell IJ, Hebert L. The prevalence and characteristic of fibromyalgia in the general population. *Arthritis Rheum* 1995;38:19-28
- [2] Busch, Angela J., et al. Exercise therapy for fibromyalgia. *Current pain and headache reports* 2011;15:358.
- [3] Burke, Shauna M., et al. Group versus individual approach? A meta-analysis of the effectiveness of interventions to promote physical activity. *Sport and Exercise Psychology Review*, 2006, 2.1: 19-35.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.7326

FRI0705-HPR THE RELATIONSHIP BETWEEN SELF-REPORTED PAIN EXPERIENCE AND FUNCTIONALITY IN PATIENTS WITH JUVENILE SCLERODERMA

Ela Tarakci¹, Arzu Dag², Amra Adrovic³, Kenan Barut⁴, Mehmet Yildiz⁴, Ozgur Kasapcopur⁴. ¹Istanbul University-Cerrahpasa, Faculty of Health Science, Department of Physiotherapy and Rehabilitation, Department of Neurologic Physiotherapy and Rehabilitation, Istanbul, Turkey; ²Istanbul Yeni Yuzyl University, Faculty of Health Science, Department of Physiotherapy and Rehabilitation, Istanbul, Turkey; ³Istanbul University-Cerrahpasa, Cerrahpasa Medical School, Department of Pediatric Rheumatology, Istanbul, Turkey; ⁴Istanbul University-Cerrahpasa, Cerrahpasa Medical School, Department of Pediatric Rheumatology, Istanbul, Turkey

Background: Juvenile scleroderma (JS) is a rarely seen chronic connective tissue disorder characterized by inflammation and fibrosis of the skin. Pain and functionality is a widely neglected symptom in patients with JS, even though it may be common and have a significant impact on the quality of life. Clinical trials and small treatment studies suggest that pain is significant in scleroderma, but few data speak of the frequency or presence and experience of pain and the relationship between self-reported pain and functionality.

Objectives: This study aimed to determine whether the presence of pain (based on physical conditions and participants' report) and self-reported pain experience in children with JS differ from same gender population controls.

Methods: 30 patients (26 girls, 4 boys) with JS between the ages of 6-18 years and 30 healthy controls (20 girls, 10 boys) with similar age and gender were included in our study. The follow-up form was prepared considering the relevant parameters such as socio-demographic status of JS disease. Self-reported presence and experience of pain were assessed in rest, during a physical activity and after or during an exercise. Children rated their pain severity on a six-item Wong-Baker Pain Scale (WBS:0-10) from none to worst. The location, spread and character of the pain were asked (flammable, sinking, squeezing, restlessness, tingling, throbbing, tingling, electric shock etc.). Children completed their functional ability status with "Childhood Health Assessment Questionnaire (CHAQ)" and "Jebson Taylor Hand Function Test (JTHFT)".

Results: The mean age of the JS group was 14.06 ± 3.24 years (86% female, 14% male; while the %53 localized scleroderma, %47 SSc). Compared with controls, more JS participants, who indicated pain and comprehended self-reporting scales, reported higher pain affect and intensity pain and/or discomfort with activity and with exercise ($p<0.05$, 47% vs $p<0.05$, 57%), but fewer JS participants reported pain at the test ($p<0.05$, 3.3%). 40% of the patients described the character of the pain as sneezing, 7% had throbbing, 7% had tingling, 3% had flammable, and 3% had a smear. The rest of 40% population had no pain. There was a significant correlation between pain at rest and CHAQ-Total scores ($r=0.576$; $p=0.001$). There was no significant relationship between pain during activity or exercise and JTHFT and CHAQ-Total ($p>0.05$).

Conclusion: In our study, only a significant relationship was found between pain at rest and functionality. These findings indicate that pain is common in JS and that pain is significant determinants of physical