

Guidelines from Osteoarthritis Research Society International (OARSI) advise that nonpharmacologic treatment of hip and knee OA include the following: patient education; heat and cold; weight loss; exercise; physical therapy; occupational therapy; unloading in certain joints (eg, knee, hip).

**Objectives:** The aim of this study was to investigate the importance of exercise and TENS (Transcutaneous electrical nerve stimulation) therapy in patients with OA of the hip on the pain and functional status.

**Methods:** This was a prospective clinical study involving 20 patients with primary hip OA treated stationary at the Center for Physical Medicine and Rehabilitation during 2016. On receipt of all the respondents filled out the social survey, quantification of pain was conducted by visual analogue scale (VAS) and function was evaluated through measurement of the range of motion in hip joint. After that, they received physical therapy (exercise and TENS therapy) for 21 days. TENS was applied once a day for 30 minutes on both hip joints, with the frequency of 85 Hz and with short-term pulses (4 ms) (appliance TENS-2, Electronic Design Medical, Serbia). Exercise was applied once a day for 30 minutes, according to individually customized protocol; active and active-assisted exercises were used to the point of pain for strengthening the muscles of the lower extremities and to increase range of motion in the hip joints. One month after the inspection we tested functional status and pain.

**Results:** There was 100% of women, mean age 64.15±4.06 years. The most represented were retirees, 60%, followed by workers and unemployed 10% and 30%. BMI was 27.3±4.22 kg/m<sup>2</sup>. After a month there was a statistically significant reduction in pain measured by VAS (at the beginning it was 6.7; at the end 3.2;  $p < 0.001$ ). At the end of the study there was a statistically significant increasing range of motion for active flexion ( $p < 0.05$ ) and active abduction ( $p < 0.05$ ), while there was no statistically significant increasing for active extension, adduction, internal and external rotation in the hip joint ( $p > 0.05$ ).

**Conclusions:** The ACR strongly recommends the following nonpharmacologic measures for patients with knee or hip OA: cardiovascular or resistance land-based exercise, aquatic exercise, weight loss, for overweight patients. TENS may be another treatment option for pain relief. Our study showed that exercise and TENS therapy led to a statistically significant reduction in pain as measured by VAS pain scale and improving range of motion in hip joint.

**Disclosure of Interest:** None declared

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THURSDAY, 15 JUNE TO SATURDAY, 17 JUNE 2017

## Patient information and education

### PARE0004 PATIENT REPORTED LONG TERM EFFECTS OF SIX WEEK PROGRESSIVE RESISTANCE TRAINING PROGRAMME FOR RHEUMATOID ARTHRITIS

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**Background:** We introduced six week physiotherapy led progressive resistance training (PRT) programme for Rheumatoid arthritis (RA) patients to improve physical function and prevent the muscle loss (rheumatoid cachexia). Six week data showed improvement in body composition, physical function and fatigue scores<sup>1</sup>. There is little published data about the longer term benefits of short exercise interventions and therefore we wished to study longer term effects on exercise behaviour in our patient group.

**Methods:** We surveyed 79 RA patients who had completed the six weeks PRT programme between 2013 and 2016 using two methods: Anonymous postal questionnaire; Direct telephone questionnaire. Patients were asked the same following questions: 1. Describe the best you feel at present following the exercise programme? Same/ Better/ Worse. 2. Have you continued with progressive resistance exercises? Yes/ No. 3. Do you feel the programme was worthwhile? Yes/No. 4. Did you feel the programme was too long, just right or too short?

**Results:**

Patient	Continued PRT	Not continued PRT	Continued PRT	Not continued PRT
	75% (27/36) (Postal)	25% (9/36) (Postal)	51% (22/43) (Telephone)	49% (21/43) (Telephone)
Better	81% (22/27) ( $p=0.006$ )	33% (3/9)	77% (17/22) ( $p=0.009$ )	38% (8/21)
Same	15% (4/27)	56% (5/9)	18% (4/22)	19% (4/21)
Worse	4% (1/27)	11% (1/9)	5% (1/22)	43% (9/21)

**Postal questionnaire:** 45% (36/79) patients returned the postal questionnaire. Time from PRT programme completion to postal questionnaire was: range (mean) 12–36 (26) months. 69% (25/36) still felt better; 25% (9/36) felt the same; 3% (1/36) worse since the programme. 91% (33/36) felt the programme was worthwhile. 75% (27/36) continued PRT exercises. 81% (22/27) of these still felt better, compared with 33% (3/9) who have not continued PRT ( $p=0.006$ ). The duration of the programme was just right for 69% (25/36) and too short for 30% (11/36).

**Telephone questionnaire:** 54% (43/79) patients were contactable by telephone. Time from PRT programme completion to telephone questionnaire was: range (mean) 14–38 (26) months. 58% (25/43) still felt better; 18% (8/43) felt the same;

23% (10/43) worse since the programme. 95% (41/43) felt the programme was worthwhile. 51% (22/43) continued PRT exercises. 77% (17/22) still felt better, compared with 38% (8/21) who have not continued PRT. ( $p=0.009$ ). 49% (21/43) had not continued PRT exercises, of whom 43% feel worse at present. The duration of the programme was just right for 47% (20/43) and too short for 53% (23/43).

**Conclusions:** Over 90% of patients who responded found the six week PRT programme worthwhile. More than half (51–75%) of the patients continued a PRT exercise programme. Patients who continued exercises felt better compared with those who did not continue exercises.

**References:**

[1] Berntzen et al A Six-Week Progressive Resistance Training Class Improves Function and Fatigue in RA Patients: *Annals of the Rheumatic Diseases* 75 (S2):254 2016.

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### PARE0005 EDUCATIONAL PROGRAM FOR OLDER ADULTS WITH KNEE OSTEOARTHRITIS

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**Background:** Osteoarthritis is the commonest cause of disability at older ages and it is a huge burden on primary care (Peat, McCarney, & Croft, 2001). The knee joint is one of the most affected in elderly, influencing directly physical function and affecting physiological and social parameters. Therefore, it is imperative to development strategies that help individuals to change the way the disease affect their lives. International recommendations reinforce educational and exercise programs as the core of non-pharmacological approaches to enhance physical function and relieve pain and others osteoarthritis symptoms.

**Objectives:** The purpose was to assess the effectiveness of three months educational program for older adults with knee osteoarthritis (KOA).

**Methods:** Participants recruitment was done in the community using various marketing strategies. Forty individuals with 60 years or more, bilateral or unilateral KOA diagnosed according to clinical and radiological criteria of the ACR (1) and independently mobile and literate participated in the program. Educational sessions regarding exercise and joint protection strategies were offered. Telephone calls were done 15 days after each educational session. Patients received a book (2), with a core exercise section. Patients in the first attendance session were taught to do registration in an exercise training diary. Self-reported measures were pain, other symptoms, activities of daily living (ADL), and quality of life assessed by Knee Injury and Osteoarthritis Outcome Score (KOOS) questionnaire (3), Patient Global Impression of Change Scale (PGICS).

**Results:** Final sample included 32 adults (age: 67.8±5.3 years; bilateral KOA: 93.8%; female, 59.4%; BMI: 30.1±5.3 kg/m<sup>2</sup>). Eight participants did not complete the program (3 due to health problems and 5 for personal reasons). KOOS pain improved 10% ( $p=.042$ ), and other symptoms 8%. Improvement in KOOS ADL (-8.7±13.6) and quality of life (-8.2±18.0) were also observed. 47% of the participants reported significant changes (scores 5–7) after intervention and a decrease in medication use of 31.3%.

**Conclusions:** The educational program can be an effective and suitable way for osteoarthritis management and to improve pain and health-related quality of life, leading individuals with KOA to better control their pathology and consequently living better.

**References:**

[1] Altman, R., Asch, E., Bloch, D., Bole, G., Borenstein, D., Brandt, K., Brown C, Cooke TD, Daniel W, Feldman D, et al. (1986). Development of criteria for the classification and reporting of osteoarthritis. Classification of osteoarthritis of the knee. Diagnostic and Therapeutic Criteria Committee of the American Rheumatism Association. *Arthritis Rheum*, 29(8), 1039–1049.

[2] Espanha, M., Priscila, M., Yázigi, F., Marques, A., Machado, M., Campos, P., & Carrão, L. (2015). Guia para viver em PLENO: com menos dor e mais qualidade de vida. Lisboa: FMH-ULisboa, Lab. de Biomecânica e Morfologia Funcional.

[2] Roos, E. M., & Lohmander, L. S. (2003). The Knee injury and Osteoarthritis Outcome Score (KOOS): from joint injury to osteoarthritis. *Health and Quality of Life Outcomes*, 1, 64–64. doi: 10.1186/1477-7525-1-64.

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### PARE0006 PATIENT INVOLVEMENT IN BASIC RESEARCH: A PILOT STUDY

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**Background:** Although the potential value of patient involvement in clinical research has been recognized [1], involvement of patient representatives (PRs) in non-clinical research is uncommon.