

Poster Presentations

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HPR interventions (educational, physical, social and psychological)

THU0720-HPR PHYSICAL ACTIVITY IN PATIENTS WITH INFLAMMATORY ARTHROPATHIES

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Background: Inflammatory arthropathies are a group of diseases that have common characteristics, like unknown etiology, autoimmune or autoinflammatory pathogenesis, genetic predisposition and chronicity. These affect people of all ages and can cause physical, psychic, and social disability. Physical activity is essential to decrease symptoms of pain, fatigue and weakness, improving joint mobility, increasing muscle mass, flexibility and psychosocial health.

Objectives: To describe the physical activity in patients with inflammatory arthropathies.

Methods: In this transversal, observational study we evaluated all patients with inflammatory arthropathies treated with intravenous biologic therapy in a Day Hospital Unit (DHU) of a tertiary hospital. We collected the following data: demographics, indexes of disease activity according to each disease, fatigue questionnaire (FACIT), health questionnaire SF-12, physical activity questionnaire (IPAQ), and fibromyalgia questionnaire (FIRST). This represents a cohort of patients that initiate an educational program on the importance of physical activity in the management of the disease.

Results: We included 222 patients (60.8% female), with a median age (SD; range) of 56.19 (12.89; 25–82) and a median disease duration (SD) of 16.54 (9.6). Of all included patients, 54.1% had rheumatoid arthritis, 39.2% had spondyloarthritis and 6.8% has psoriatic arthritis; 26.8% were in remission, 39.2% presented moderate activity disease and 13.5% had high disease activity. Forty five (20.3%) patients had fibromyalgia according to FIRST questionnaire. According to the IPAQ questionnaire, 19.8% performed high physical activity, 24.8% moderate physical activity and 55.4% low physical activity. The FACIT score was significantly greater in patients with low physical activity ($p < 0.05$). 73% of patients considered that their diseases affect the performance of physical activity. 67% of the patients had none or very low daily physical activity, 80% would like to do more exercise. Among sports or physical activities performed by the patients, the most common was walking (65%), then swimming (12%), cycling and gym (8%) and running (6%). Of the patients who perform physical activity, 43% practice more than one sport.

In a multivariate regression logistic, only the gender and the age related with the physical activity, and not the disease; males ($p = 0.024$; Exp(B) 2,389; IC 95% 1,124- 5,059) and younger persons ($p = 0,004$; Exp (B) 0,959; IC 95%: 0,943–0,987) performed more physical activity.

Conclusions: Patients with inflammatory joint diseases perform low physical activity. The nurse plays a very important role in educating and informing the patients about their illness, and helping them in changing their lifestyle, encouraging increased physical activity with appropriate programs depending on the alterations that produce each disease, in order to improve their quality of life.

Disclosure of Interest: None declared

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THU0721-HPR MULTIDISCIPLINARY EDUCATIONAL PROGRAM FOR PATIENTS WITH HIP- OR KNEE-OA: RESULTS OF A PILOT STUDY

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Background: Providing relevant disease-related and self-management related information helps patients to timely seek contact with care providers and become actively involved in their own care process. A problem recognized in the area of Nijmegen, the Netherlands is the conflicting information about OA which is disseminated by different health professionals and health organizations. Therefore, health professionals from primary care, multiple hospitals and health organisations decided to work together and develop an educational program

based on a structured inventory of informational needs and on consensus-based information addressing those needs.

Objectives: To determine preliminary effects of a multidisciplinary patient educational program on health care utilization (primary outcome) and on body mass index (BMI), self-efficacy, knowledge on OA and treatment, illness perceptions, pain and functioning and physical activity.

Methods: A total of 146 participants attended 11 organized courses. The educational program consisted of 2 meetings, provided by a physiotherapist, a general practitioner (GP) and an orthopaedic surgeon or specialized nurse. The program comprised education on OA, treatment options and self-management, tips, practical assignments and aphorisms on OA which are repeated by the different course leaders. At baseline and at 3 months follow-up, the following outcome measures were assessed: contacts with different health care providers in the past 3 months, BMI (kg/m²), self-efficacy (10–40), knowledge on OA and treatment (0–22), illness perceptions (0–100), pain and functioning (0–100) and physical activity (min/week). Paired-sample t-tests and McNemar's test were used to estimate the preliminary effects of the program on primary and secondary outcomes.

Results: A total of 144 participants agreed to participate in this study, 108 (75%) participants filled out both questionnaires. The mean (SD) age of the participants was 69.1 (10.2) years with 62.5% being female. Fifty-six percent of the participants had experienced their OA symptoms for less than 5 years. We found a significant decrease in proportion of patients who had visited their GP in the past 3 months (40.7% to 25.0%, p -value 0.02). Also, we observed a statistically significant decrease in proportion of patients who visited the physiotherapist in the past 3 months, (36.1% to 25.0%). Illness perceptions changed positively (95% CI: 0.4 – 3.4), and knowledge on OA and treatment options improved (95% CI: -3.0 - -1.6). No changes in pain, functioning and self-efficacy were found. However, a trend towards a decrease in BMI and an increase in physical activity was seen.

Conclusions: Results of this study show that collaborating with multiple health professionals to provide patients with clear information on OA, treatment and self-management options in a multidisciplinary educational program, can result in differences in health care utilization and have positive effects on illness perceptions and knowledge on OA. A randomized controlled trial is needed to confirm these results.

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THU0722-HPR THE EFFECTS OF KINESIO TAPING ON PAIN, JOINT RANGE OF MOTION, MUSCLE STRENGTH AND DISABILITY IN IMPINGEMENT SYNDROME

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Background: The impingement syndrome is common cause of shoulder pain. Physical therapy includes manual therapy techniques, electrotherapy modalities and exercises in this problem. The Kinesio Taping application is a definitive rehabilitative taping technique that is designed to facilitate body's natural healing process while providing support and stability to muscles and joints without restricting the body's range of motion

Objectives: The purpose of this study was to determine the efficacy of kinesio taping (KT) on subjects' pain, joint range of motion, muscle strength and level of disability in treatment of impingement syndrome (IS).

Methods: The study was conducted patients with IS. The subjects were divided into two groups randomly as general physical therapy applications group (GPTG) and kinesio taping group (KTG). GPTG was treated transcutaneous electrical nerve stimulation (TENS), hotpack and ultrasound for ten session. KTG's therapy was contained shoulder kinesio taping application in addition to TENS, hotpack and ultrasound. KT was applied as "Y strip" to deltoid and supraspinatus muscles and was "I strip" to muscle of teres minor. The groups were evaluated before and after treatment in terms of pain, range of motion (ROM), muscle strength and scores of shoulder disability. Visual analog scale was used to assess of pain (night pain, rest pain, pain with motion and general pain), goniometer measurements was used to assess of shoulder ROM, Shoulder Disability Questionnaire and Disabilities of the Arm Shoulder and Hand were used to assess of shoulder disability.

Results: 54 patients with IS aged 18 to 65 years were recruited to the study. Demographic data were similar in the groups. When compared before and after treatment, the level of pain (night pain, rest pain, pain with motion and pain in functional use) was significantly decreased in both groups ($p < 0,05$) (Table 1), also an improvement was seen in muscle strength ($p < 0,05$), ROM ($p < 0,05$) and in the scores of disability of shoulder ($p < 0,05$) in both groups. In terms of overall pain relief the KTG scores better than GPTG. Internal and external rotation muscle

forces increase in the KTG; flexion, extension, internal and external rotation muscle forces increased in the GPTG ($p < 0.05$ for all). But there was no significant difference between the two groups.

Table 1. The level of pain in GPTG and KTG

	GPTG (mean \pm sd)			KTG (mean \pm sd)		
	Before Therapy	After Therapy	p	Before Therapy	After Therapy	p
Night pain severity	6,69 \pm 3,4	3,62 \pm 2,9	<0,001	5,28 \pm 3,18	2,32 \pm 2,23	<0,001
Rest pain severity	3,97 \pm 3,31	2,45 \pm 2,78	0,005	2,96 \pm 3,29	1,08 \pm 1,75	0,031
Pain severity with motion	8,07 \pm 1,81	5,14 \pm 2,47	<0,001	7,72 \pm 2,03	4,36 \pm 2,21	<0,001
Severity of general pain	7,76 \pm 4,54	4,66 \pm 3,99	<0,001	8,40 \pm 3,13	4,8 \pm 2,69	0,005

Active internal and external rotation ROM increased in KTG ($p < 0.05$). Functionality and disability scores were improved in two groups. It was detected that while there was no difference between the groups in terms of the values of muscle strength, functionality and disability scores.

Conclusions: The kinesiological band can be used as a supportive therapy method in the early shoulder treatment program because of it provides painless shoulder motion to clinicians. We consider that KT applications in addition to general physical therapy applications may have positive effects in the treatment of impingement syndrome.

Disclosure of Interest: None declared

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THU0723-HPR A PHYSIOTHERAPY-LED IN-PATIENT INTENSIVE REHABILITATION PROGRAMME FOR ANKYLOSING SPONDYLITIS: FOLLOW-UP OUTCOMES

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Background: Physiotherapy and exercise are highly important in the management of Ankylosing Spondylitis (AS). Physiotherapy is delivered to patients with AS in either in-patient or out-patient settings. Knowledge of the effectiveness of an in-patient delivered programme is useful for physiotherapists in assisting patients to achieve their goals.

Objectives: To assess the short-term effectiveness of an intensive rehabilitation programme using BASMI and EASI-QOL outcomes, and long-term patient satisfaction and physical activity behaviour and adherence to exercise plan.

Methods: Thirty-two AS patients (25 males and 7 females) admitted to an in-patient rheumatology ward underwent a 1 to 2-week physiotherapy-led intensive rehabilitation programme and were then discharged with a home exercise programme. Pre/post rehabilitation BASMI scores were available for 26 patients. The primary outcome measure was the proportion of patients achieving an improvement on BASMI scores at discharge. Secondary outcome measures included improvements in physical activity levels and adherence to home exercise plan for longer than 3 months which was obtained via a postal patient satisfaction and physical activity questionnaire achieving a response rate of 50% ($n=16$).

Results: Improvements in BASMI scores was achieved in 69% of patients ($n=18$) at the end of the in-patient rehabilitation period. Improvements in EASI-QOL were achieved in 83% of patients ($n=15$) at the end of the in-patient rehabilitation period. Ninety-four percent of patients ($n=15$) increased their physical activity levels after discharge, with 81% ($n=13$) of patients maintaining their home exercise programme for 3 months or more. Thirty-seven percent ($n=7$) of patients carry out at least 150 minutes of physical activity per week (National Recommended Physical Activity Guidelines is 150 minutes/week of moderate intensity).

Conclusions: This recent audit shows the effectiveness of an intensive physiotherapy-led in-patient rehabilitation programme for Ankylosing Spondylitis improving BASMI scores in the short-term and increasing physical activity behaviour over the long-term. Future work will aim to compare demographics and medical treatment differences between improvers and non-improvers.

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THU0724-HPR SELF-MANAGEMENT EXERCISE PROGRAM ASSOCIATED TO SPA THERAPY INCREASED THE PHYSICAL ACTIVITY LEVEL OF PEOPLE WITH SYMPTOMATIC KNEE OSTEOARTHRITIS: A QUASI-RANDOMIZED CONTROLLED TRIAL

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Background: Treating knee osteoarthritis (OA) in the medical phase is today

well standardized. Guideline orientated approaches aiming at increasing physical activity (PA), improving pain and disability.

Objectives: To assess effectiveness of self-management exercise program associated to spa therapy at 3 month on the improvement of physical activity (PA) level, disability, pain, anxiety, fears and believes in symptomatic knee osteoarthritis people.

Methods: Prospective, multicentric, quasi-randomized controlled trial with alternate month design method (one month periods). People with symptomatic knee OA people (stage I-IV, Kelgren and Lawrence scale) with low and moderate PA level were included in 3 spa therapy resorts. Intervention group (IG) received 5 self-management exercise sessions (1h30; education, aerobic, strength training, range of motion) + information booklet + 18 sessions (1h) of conventional spa therapy (STC). Control group (CG) received information booklet + 18 sessions of STC. The primary outcome was changes at 3 months in PA level (IPAQ short form score) and secondary outcomes were WOMAC function, pain (VAS), HAD anxiety/depression, KOFBeQ fears and believes changes.

Results: 131 subjects were included. The mean age was 65.6 years [\pm 6.7]. WOMAC function score was 22.1/68 [\pm 11.3] and pain was 4.6/10 [\pm 1.9] at inclusion. Both groups significantly increased PA level measured with continuous IPAQ total score (MET-minutes/weeks), with superiority for IG (+77.8%; $p=0.0062$) than CG (+50.7%; $p=0.0099$). There was no change in setting time. Disability (-11.3%; $p=0.0370$) and pain (-15.2%; $p=0.0032$) also decreased significantly for both groups. Anxiety (-11.6%; $p=0.0195$) and fears and believes (-18.2%; $p=0.0146$) decreased significantly only in intervention group. Other data will be presented later.

Conclusions: This study confirms the impact of STC on disability and pain and gives news data's on physical activity level. Self-management exercise program improve anxiety, fears and believes. Complex educational strategies comprising information booklet with or without self-management exercise program can be proposed and adapted to OA phenotypes.

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THU0725-HPR COST EFFECTIVENESS ANALYSIS OF ABATACEPT COMPARED WITH TNF INHIBITORS IN PATIENTS WHO ARE POSITIVE FOR ANTI-CITRULLINATED PROTEIN ANTIBODIES BASED ON RESULTS FROM AN OBSERVATIONAL TRIAL

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Background: Anti-citrullinated protein antibodies (ACPA) are highly specific to RA and patients (pts) who are ACPA positive (+) tend to develop more severe, erosive disease than ACPA-negative pts.¹ In an observational study exploring the status of ACPA on RA treatment response to abatacept (ABA) or a TNF inhibitor (TNFi), mean (SE) changes from baseline in CDAI at 6 months was -8.8 for ABA and -5.6 for TNFi initiators.²

Objectives: To evaluate the costs and benefits of treating pts with RA who are ACPA+ with ABA vs TNFi on background MTX.

Methods: An economic analysis was carried out estimating lifetime direct costs and quality-adjusted life years (QALYs) of ACPA+ pts with RA treated with ABA or TNFi from a UK National Health Service (NHS) perspective. QALYs are a measure of disease burden, adjusted to reflect quality of life lived. As data for the economic analysis were derived from a real-world study, an "average" pt was modelled, whose baseline characteristics were based on the observational study. CDAI changes at 6 months for each treatment were converted to HAQ changes, and disease progression was based on HAQ score changes over a lifetime. Continuation of therapy was based on rates from the real-world study. Mean long-term survival on treatment with ABA or TNFi was derived from the literature.³ In the base case, pts discontinuing ABA or TNFi moved to palliative care (MTX). Direct medical costs and quality of life scores were correlated to HAQ scores.^{3,4} Costs included hospitalizations, joint replacements and treatment costs. Estimates of differences in costs and QALYs between ABA and TNFi initiators were used to calculate an incremental cost-effectiveness ratio (ICER; cost per QALY gained). The annual cost of TNFi was calculated as an average of TNFi drugs in the UK (£ 9113). For ABA, an average cost of five biologics was used (£ 9244) to reflect a realistic cost to NHS UK. A sensitivity analysis examined the effect of varying the input parameters of efficacy, cost and utilities on costs and outcomes.

Results: Based on an "average" pt from the observational study, the total estimated QALYs for ABA and TNFi initiators were 6.4 and 6.27, respectively. Total lifetime costs were £ 41,378 and £ 40,627, respectively. The lifetime cost for