

Results: Between the groups there was no difference in demographic data. We showed significant improvement in all parameters except lateral flexion, tragus wall distance measurements for spinal mobility and beck depression index scores at second week ($p<0.05$) in physical therapy group. This improvement in all parameters was discontinued for intermalleolar distance, cheek manubrium distance, cervical rotation, finger floor distance and BASFI at 6th week measurements. We also showed significant improvements mental capacity and social function subgroups of SF-36 at 6th week when compared with beginning ($p<0.05$). We detected significant improvement in second week and sixth week for VAS rest and general health subgroup of SF-36 at physical therapy group when comparing two groups.

Conclusions: Physical therapy may have beneficial effects on pain, spinal mobility and quality of life in patients with AS.

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Disclosure of Interest: A. Ünal Enginar Shareholder of: none, Grant/research support from: none, Consultant for: none, Employee of: none, Paid instructor for: none, Speakers bureau: none, H. Uğurlu Shareholder of: none, Grant/research support from: none, Consultant for: none, Employee of: none, Paid instructor for: none, Speakers bureau: none

DOI: 10.1136/annrheumdis-2018-eular.3143

THU0723-HPR NICE GUIDANCE ON SPONDYLOARTHRITIS: RECOMMENDATIONS SUPPORTING RECOGNITION AND REFERRAL BY PHYSIOTHERAPISTS & PODIATRISTS

C. McCrum^{1,2}. ¹Centre for Health Research, University of Brighton; ²Physiotherapy Dept, East Sussex Healthcare NHS Trust, Eastbourne, UK

Background: Physiotherapists and podiatrists are key to earlier diagnosis of spondyloarthritis (SpA) and have an essential role in assessing for signs, symptoms and risk factors in people with joint, tendon or back pain. Spondyloarthritis can be a challenge to recognise and often mistaken as chronic back pain or unrelated tendon and joint problems. Symptoms can move around, flare and settle, and links between back pain, peripheral problems and extra-articular conditions can be missed.

Objectives: This presentation raises awareness of recent NICE guidelines on Spondyloarthritis¹ and provides an overview of recommendations on recognition and referral relevant for physiotherapists and podiatrists.

Methods: The guideline was developed using standard NICE guideline methodology. Quality ratings of evidence applied GRADE methods based on quality of available evidence for assessed outcomes. When standard methodology could not be applied, customised quality assessments provided narrative summaries or customised GRADE tables. Recommendations were developed by a multispecialty development group which included people with SpA and review by stakeholder organisations informing the final version.

Results: NICE guidance offers recommendations for suspecting axial and peripheral presentations and when to refer to rheumatology for assessment. These are based on the evidence for signs, symptoms and risk factors that increase the likelihood that a person may have SpA. The guidance highlights that SpA can occur with negative HLA B27, normal inflammatory markers and not to exclude SpA based on any one sign, symptom or test result.

Referral is recommended for suspected axial spondyloarthritis with back pain lasting >3 mths with onset before 45 years of age plus four or more additional features: Onset before 35 years; Woken second half of night by symptoms; Buttock pain; Improves with movement; Improves within 48 hours of taking NSAIDs; First-degree relative with SpA or psoriasis; Current/past enthesitis; Current/past psoriasis; Current/past uveitis plus psoriasis or HLAB27 positive).^{1,2} Morning stiffness lacked specificity as a referral criterion for axial SpA however prolonged morning stiffness remains important in suspecting inflammatory disease.

Referral is recommended for suspected peripheral SpA if a person presents with dactylitis; or with persistent or multiple-site enthesitis (inflammation at tendon/ligament attachment to bone) without apparent mechanical cause plus if any of the following: back pain without apparent mechanical cause; current/past psoriasis, inflammatory bowel disease or uveitis; first degree relative with SpA or psoriasis; or symptom onset following gastrointestinal or genitourinary infection.

Conclusions: Recognising possible signs, symptoms and risk factors of spondyloarthritis is an essential aspect of clinical practice for clinicians assessing musculoskeletal problems. Recent NICE guidance offers advice on suspecting SpA and when to refer to rheumatology for assessment to support earlier diagnosis, treatment and reduce the significant impacts of these conditions.

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Acknowledgements: Dr Carol McCrum was on the guideline development committee and has a NICE Fellowship to raise awareness and support implementation of these guidelines

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.1412

THU0724-HPR INVESTIGATION OF IMMEDIATE EFFECT OF CERVICAL STABILISATION EXERCISES ON PROPRIOCEPTION IN PATIENTS WITH NECK PAIN

E. Tonga, T. Özen, E. Timurtaş, G.M. Polat. *Marmara University, Faculty of Health Sciences, Department of Physiotherapy and Rehabilitation, Marmara University, Istanbul, Turkey*

Background: Reduced ability to maintain and upright posture, may reflect impaired muscle endurance and proprioceptive accuracy required to control the postural position in patients with neck pain. A recent study investigated the effect of cervical stabilisation exercises on proprioception of neck pain patients. But in mentioned study the joint position change was evaluated for only cervical flexion movement.

Objectives: The aim of our study is determine the acute effect of cervical stabilisation exercises on joint position sense in all ranges of neck movement in patients with idiopathic chronic neck pain.

Methods: 20 patients (27–45 ages, 80% female and 4 men 20% male) with neck pain for more than 3 months were participated in this study. Exercise training was performed only one session. Patients with any neurological deficits, any recent injuries to neck and were excluded from the study. Training included craniocervical flexion, deep cervical extensor muscle activation, isometric flexion-extension exercises in upright position and shoulder flexion with neutral cervical position in upright position. Each exercise were performed five times. The measured variables included joint repositioning errors in the sagittal and horizontal directions. Visual Analogue Scale (VAS), Neck Disability Index (NDI) were implemented for determining the personal characteristics of patients. Cervical joint repositioning error was evaluated by laser pointer in flexion, extension, rotation and lateral flexion of cervical movement directions at sitting position before and after exercise session. Wilcoxon test was used to compare to differences between repeated assessments

Results: VAS values for pain intensity were (mean \pm SD) 5.56 \pm 3.17, NDI values were 14.06 \pm 6.83 and HADS scores were 18.27 \pm 2.23. In comparison to baseline values, joint position error was significantly lower in flexion, extension, rotation and lateral flexion directions at horizontal and sagittal planes ($p<0.001$) except right lateral flexion at sagittal plane ($p>0.05$) (table 1).

Abstract THU0724HPR – Table 1. Comparison of joint position errors

Variable (degree)	Before exercise Median \pm SD	After exercise Median \pm SD	p value
JPE in flexion horizontal	1.71 \pm 0.66	0.57 \pm 0.80	<0.001
JPE in flexion sagittal	1.14 \pm 0.43	0.68 \pm 0.40	<0.001
JPE in extension horizontal	0.85 \pm 0.48	0.57 \pm 0.42	<0.001
JPE in extension sagittal	0.85 \pm 0.55	0.28 \pm 0.22	<0.001
JPE in right rotation horizontal	1.05 \pm 0.53	0.57 \pm 0.31	<0.001
JPE in right rotation sagittal	0.76 \pm 0.73	0.28 \pm 0.30	<0.001
JPE in left rotation horizontal	1.14 \pm 0.39	0.28 \pm 0.42	<0.001
JPE in left rotation sagittal	0.95 \pm 0.49	0.29 \pm 0.28	<0.001
JPE in right side bend horizontal	1.05 \pm 0.56	0.57 \pm 0.28	<0.001
JPE in right side bend sagittal	0.19 \pm 0.36	0.19 \pm 0.22	0.209
JPE in left side bend horizontal	1.19 \pm 0.54	0.47 \pm 0.37	<0.001
JPE in left side bend sagittal	0.19 \pm 0.39	0.38 \pm 0.23	<0.001

JPE=Joint position error, p values are based on Wilcoxon Signed Ranks Test



Conclusions: The immediate effects of neck stabilisation exercises on proprioceptive function of neck may reflect that these exercises, may enhance postural awareness and control while in motion.

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Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.6500

THU0725-HPR EULAR POINTS TO CONSIDER/RECOMMENDATIONS FOR THE HEALTH PROFESSIONALS' PREVENTION AND MANAGEMENT OF OSTEOPOROTIC FRACTURES

E. Hurkmans¹, N. Wilson², T. Stamm³, J. Adams², on behalf of Task force group HP management osteoporotic fractures. ¹*Social Affairs and Health, Ecorys, Rotterdam, Netherlands*; ²*Faculty of Health Sciences, University of Southampton, Southampton, UK*; ³*Section for Outcomes Research, Center for Medical Statistics, Informatics, and Intelligent Systems, Medical University of Vienna, Vienna, Austria*

Background: Interventions delivered by non-physician health professionals, such as physiotherapists, occupational therapists and nurses play an important role in effective management of patients with osteopenia or osteoporosis.

Objectives: To establish EULAR Points to Consider/Recommendations for the prevention and management of osteoporotic fractures by non-physician health professionals.

Methods: Points to consider/recommendations were developed according to EULAR standard procedures¹ using six stages: i) establishment of an international expert panel/task force including patients, rheumatologists, orthopaedic surgeons and health professionals; ii) a first Delphi-round to set up clinical questions; iii) a literature review; iv) a task force meeting to review the results of the literature search and to formulate points to consider/recommendations; v) development of consensus and assessment of the level of agreement with the points to consider/recommendations using second Delphi round; vi) a field test.

Results: Eight clinical questions and two overarching principles were formulated, subject to the literature search (the clinical questions only) and discussed and refined during the task force meeting. The two overarching principles focused on the importance of shared decision making between patients and professionals and the involvement of different health professionals. Two clinical questions were merged and the task force finally agreed on seven recommendations/points to consider: 1) Health professionals should start with fall risk evaluation in patients at risk of primary or secondary fracture. Patients with high risk should be evaluated by a health professional using multi-component screening, or referred to another health professional competent in multi-component screening. 2) Health professionals should ensure that after osteoporotic fracture, patients are given

opportunities to participate in adequate exercise and are supported in adequate nutritional intake. Calcium and vitamin D intake should be discussed with the patients. 3) Smoking and overuse of alcohol should be discouraged. 4) Tailored multicomponent interventions including, for example: exercises, environmental adaptations, nutrition, life-style and education, should be offered to patients at high risk of primary osteoporotic fracture and/or high risk of falls. 5) Health professionals should be included in Fracture Liaison Services (FLS) and/or a coordinated, multidisciplinary post-fracture prevention program. Patients with fragility fractures should be referred to a FLS or an adequate, coordinated, multidisciplinary post-fracture prevention program. 6) Health professionals should address, monitor and support medication adherence in a structured follow up. 7) Health professionals should identify patients at risk of bone fragility, ensure they are offered opportunities for adequate treatment, and address bone fragility through patient education.

Conclusions: These points to consider/recommendations should be applied by health professionals in the prevention and management of osteoporotic fracture to ensure high quality care.

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Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.4821

THU0726-HPR ADHERENCE TO BIOLOGICAL THERAPY IN CHRONIC INFLAMMATORY RHEUMATISM: RESULTS OF A RETROSPECTIVE STUDY IN AUVERGNE, FRANCE

E. Fayet, M.R. Rodere, C. Savel, B. Pereira, M. Soubrier, M. Couderc. *Hospital Gabriel Montpied, Clermont-ferand, France*

Background: The arsenal of treatment options for Chronic inflammatory rheumatism (CIR) has considerably grown over recent years with the biological therapies. Poor patient adherence to treatment is a major barrier to proper disease management. Patient education enhances drug adherence by improving the knowledge and skills needed to manage the disease and treatments.

Objectives: This study aimed to assess adherence to subcutaneous biological therapy using the Morisky Medication Adherence Scales (MMAS-4) in patients with CIR: rheumatoid arthritis (RA), ankylosing spondylitis (SA) and psoriatic arthritis (PsA), who received education in our department.

Methods: This was a retrospective single-centre observational study of routine care. All patients on subcutaneous biological therapy who received at least one education interview between 2009 and 2013 were included. Adherence was assessed using the Morisky questionnaire (MMAS-4). A comparison of adherence was made based on the BIOSECURE questionnaire (knowledge and skills relating to biological therapy) and type of educational model received by patient (model 1: providing information; model 2: performing one-on-one education; model 3: performing head to head and group-based education). Adherence was also compared based on population characteristics, type of care (mixed or solely hospital), type of CIR, number of education interviews, injection frequency and type of biological therapy.

Results: A total of 193 patients were included in the study, 124 of whom were women. The population's mean age was 53.3±14.8 years. Patients had had CIR for 10 years, ⁵⁻¹⁸ with 113 patients suffering from RA, 73 from SA, and 7 from PsA. Of the 193 patients, 192 (99.5%) were on TNF inhibitors (of whom 107 [55.4%] were on etanercept, 58 [30.1%] on adalimumab, 10 [5.2%] on certolizumab and 17 [8.8%] on golimumab) while 1 (0.5%) was on abatacept. About 75.7% (n=146) of the patients reported good adherence (Morisky=0), 17.6% (n=34) moderate adherence (Morisky=1 or 2), and 6.7% (n=13) poor adherence (Morisky=3 or 4). No significant association was observed between knowledge and skill levels as evaluated by the BIOSECURE questionnaire and adherence as evaluated by the Morisky questionnaire (respectively, 76±13, 77±11, 76±18, p=0.91). A total of 92 patients received model 1, 80 received model 2, and 21 received model 3. Adherence was poorer in the group that received model 3 compared with the other two models (79% Morisky score of 0 for model 1, 76% for model 2 *versus* 57% for model 3; p=0.04) and poorer in young patients (p=0.005). No difference existed based on gender, education level, marital status, type of care (mixed or solely hospital), type of CIR, number of education interviews, frequency (1, 2 or 4 weeks) of biological injections.

Conclusions: Adherence to biological therapy was quite good in this study. No link existed between adherence and knowledge levels. Combining head to head and group-based patient education did not improve adherence compared with simply providing information or performing head to head patient education alone.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.1753