Dayton, United States of America;³Dayton Veteran Administration Medical Center, Cardiology, Dayton, United States of America

Background: Rheumatoid arthritis (RA) is a chronic immune mediated systemic disease known to affect multiple organs. It is known that cardiovascular disease accounts for nearly half the mortality among RA patients^{1,2,3}. Osteoarthritis (OA), on the other hand, is not an inflammatory arthritis. No prior study has compared the prevalence of cardiovascular disease (CVD) among these two groups of patients.

Objectives: The purpose of this study was to compare the prevalence of CVD among U.S. veterans with RA versus those with OA.

Methods: The study was conducted in a metropolitan Veterans Affairs Medical Center in the U.S. Information was collected from 125 consecutive patients with RA and 125 consecutive patients with OA as they presented to the clinic. Patient characteristics were noted as well as the presence of CVD and certain subgroups: Cardiac arrhythmias⁴, coronary artery disease (CAD), congestive heart failure (CHF), cerebrovascular accident (CVA), abdominal aortic aneurysm (AAA), peripheral vascular disease (PVD), deep vein thrombosis (DVT), pulmonary embolism (PE), or any other form of embolism. The chi square test and the mann-whitney test were used for statistical analyses.

Results: Patient characteristics did not differ between the two groups for age, race, smoking status, or for the presence of hypertension or diabetes. There were more women in the RA group. The OA group had a higher BMI and a higher prevalence of hyperlipidemia. RA patients compared to OA patients had a higher incidence of CVD as a whole (60% vs. 42%, $p < 0.004$) and of cardiac arrhythmias (33.6% vs. 13.6%, $p = 0.001$). There was no difference between the 2 groups for the incidence of CAD, CHF, CVA, AAA, PVD or DVT/PE. RA seropositive and seronegative patients did not differ in the prevalence of CVD. RA duration was not related to the increased prevalence of CVD. Among the cardiac arrhythmias, patients with RA had a higher prevalence of atrial fibrillation (19.2% vs. 8.8%, $p < 0.03$), and arrhythmias requiring pacemaker or defibrillator implant (12.8% vs. 4.0%, $p < 0.02$).

Conclusion: The findings of this study demonstrate that our patients with RA have a statistically higher prevalence of CVD compared to OA patients. Among the subgroups, RA patients had a higher prevalence of cardiac arrhythmias, specifically atrial fibrillation and arrhythmias requiring pacemaker or defibrillator implant.

References:

- [1] England BR, et al. Cause-specific mortality in male US veterans with rheumatoid arthritis. *Arthritis Care Res (Hoboken)*; 68: 36-45 2016
- [2] Avina-Zubieta JA, et al. Risk of incident cardiovascular events in patients with rheumatoid arthritis: a meta-analysis of observational studies. *Ann Rheum Dis* 2012; 71: 1524-1529.
- [3] Maradit-Kremers H et al. Increased unrecognized coronary heart disease and sudden deaths in rheumatoid arthritis: A population-based cohort study. *Arthritis Rheum*. 2005; 52: 402-411
- [4] Lazzarini PE, Capechi L et al. Systemic Inflammation and arrhythmic risk: lessons from rheumatoid arthritis. *European Heart Journal*; 2017, 38: 1717-1727

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.473

FRIDAY, 05 JUNE 2020

HPR Interventions (educational, physical, social and psychological)

FRI0644-HPR PATIENT EDUCATION AND BASIC BODY AWARENESS THERAPY VERSUS PATIENT EDUCATION ONLY IN PATIENTS WITH HIP OSTEOARTHRITIS: A RANDOMIZED CONTROLLED TRIAL.

A. L. Olsen^{1,2}, L. H. Magnussen³, L. H. Skjaerven³, J. Assmus⁴, M. A. Sundal³, O. Furnes⁵, G. Hallan⁶, L. I. Strand¹. ¹University of Bergen, Department of Global Public Health and Primary Care, Bergen, Norway; ²Haukeland University Hospital, Department of Physiotherapy, Bergen, Norway; ³Western Norway University of Applied Sciences, Department of Health and Social Sciences, Bergen, Norway; ⁴Haukeland University Hospital, Centre of competence on clinical research, Bergen, Norway; ⁵Haukeland University Hospital, The Norwegian Arthroplasty Register, Bergen, Norway; ⁶Haukeland University Hospital, Department of Clinical Medicine, Bergen, Norway

Background: Patients with hip osteoarthritis tend to develop stereotype and energy demanding movement strategies with potential negative effects on disease progression and daily life functioning. A multi-perspective view on movement quality is applied in the physiotherapy modality Basic Body Awareness Therapy (BBAT), with its movement awareness learning pedagogy. BBAT has been found

beneficial for functional movement quality, symptoms, and psychological aspects of health in patients with various long-lasting conditions.

Objectives: To investigate the short-term (6 months) effects of BBAT, added to Patient Education (PE) compared with PE only in patients with hip osteoarthritis.

Methods: A block-randomized controlled trial with 6 months follow-up was conducted. Patients were allocated to 3.5 hours of PE plus 12 weekly sessions of BBAT, each lasting 90 minutes (intervention group), or to PE only (comparison group). Primary outcomes: Numeric Rating Scale (NRS) for pain during walking and Hip Osteoarthritis Outcome Score, subscale Activities of Daily Life (HOOS A). Secondary outcomes included physical capacity tests: Chair test, Stairs test, six-minutes walking test (6MWT), movement quality evaluation: Body Awareness Rating Scale – Movement Quality and Experience (BARS-MQE), and self-reported measures: Activity level (UCLA), function (HOOS subscales P, S, SP, QL and Harris Hip Score (HHS), self-efficacy (Arthritis Self-efficacy Scale, ASES), and health (Euro-QoL, EQ-5D-5L).

Patient Global Impression of Change (PGIC) on pain and function was registered at 6 months.

ANCOVA of change was used in intention-to-treat and per protocol analysis.

Results: 101 patients were included, average age 63 years, 80% female. There was no difference in change between the groups on the primary outcomes at 6 months. However, movement quality (BARS-MQE) improved more ($p < 0.001$) in the intervention group, and the patients reported more improvement in pain (PGIC) than the comparison patients ($p = 0.031$). In per protocol analysis, including 30 patients who attended at least 10 BBAT sessions, intervention patients had statistically significant better scores on self-efficacy (ASES pain, $p = 0.049$), health (EQ5D5L VAS, $p = 0.037$) and function (HHS, $p = 0.029$) than the comparison patients.

Conclusion: Patients with hip osteoarthritis were not found by the primary outcome measures to improve more by BBAT added to PE than by PE alone. Movement quality improved, however, significantly more in the intervention group. With sufficient compliance to BBAT, significant more improvement in additional health indicators was demonstrated.

References:

- [1] Egloff C, Hugle T, Valderrabano V. Biomechanics and pathomechanisms of osteoarthritis. *Swiss Med Wkly*. 2012;142:w13583.
- [2] Smith TO, Purdy R, Lister S, Salter C, Fleetcroft R, Conaghan P. Living with osteoarthritis: Systematic review and meta-ethnography. *Scand J Rheumatol*. 2014;43(6):441-452.
- [3] Skjaerven LH, Kristoffersen K, Gard G. An eye for movement quality: a phenomenological study of movement quality reflecting a group of physiotherapists' understanding of the phenomenon. *Physiother Theory Pract*. 2008;24(1):13-27.

Acknowledgments: The authors thank the funding institution; The Norwegian Fund for Post-graduate training in Physiotherapy.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.2540

FRIDAY, 05 JUNE 2020

HPR Patients' perspectives, functioning and health (descriptive: qualitative or quantitative)

FRI0645-HPR QUALITY OF DUTCH KNEE OSTEOARTHRITIS CARE: THE PATIENT'S PERSPECTIVE

Y. Peters¹, J. Vriezekolk¹, C. Van den Ende¹. ¹Sint Maartenskliniek, Nijmegen, Netherlands

Background: In the Netherlands over 1.2 million people have OA of which almost half have knee OA. Recently, several international and national guidelines and quality standards have been developed and adopted to improve the quality of knee OA care. Mapping the patient perspective is a valuable and important step to get insight into the current status of the quality of knee OA care and the uptake of the quality of care standards endorsed by current guidelines.

Objectives: To investigate the quality of knee osteoarthritis care from the patients' perspective in the Netherlands.

Methods: Members of a large observational prospective cohort (n=622), consisting of people clinically diagnosed or suspected with knee OA, were invited to complete an online survey. Besides demographic characteristics participants were inquired whether they contacted a health care professional(s) in the last year for their knee OA and, to fill in a slightly adapted version of the "OsteoArthritis Quality Indicator (OA-QI) questionnaire. In addition, participants rated the quality of knee osteoarthritis care in the Netherlands on a 10-point scale (1: very poor - 10: excellent), and were invited to make recommendations for knee OA healthcare improvement via open-ended questions.

Results: Between September and October 2019, 434 participants completed the survey. Preliminary results show that most participants (78%) contacted one or more health care professional(s) for their knee OA complaints in the last year; most often an exercise and/or physical therapist (53.2%), the general practitioner (43.8%) and/or an orthopedist/orthopedic surgeon (41.5%). Furthermore, there were large variations in self-reported quality indicator achievements (checked "Yes") with the lowest rate for referral for weight reduction and, the highest rate for advice on managing/living with osteoarthritis (table 1). On average, a score of 6.5 was given by the participants for the quality of knee OA healthcare in the Netherlands. Participants' suggestions for OA care improvement comprised of, among others, more attention to pain and fatigue symptoms, expanding and researching treatment options, more information on OA, more attention to the personal situation and, improvement of multidisciplinary care.

Table 1. Self-reported Quality Indicator achievement

Self-reported Indicators	Eligible n*	Checked "Yes" n(%)
Received information about OA	417	310 (74.3)
Received Information about treatment	424	252 (59.4)
Advised on managing/living with OA	421	313 (74.4)
Was offered support on managing/living with OA	421	253 (60.1)
Received information about exercise	426	306 (71.8)
Was offered a referral for (muscle-strengthening) exercises and exercise activities	423	211 (49.9)
Advised to lose weight	303	111 (36.6)
Was offered a referral to services for losing weight	247	37 (15.0)
Assessment of problems in daily activities	301	89 (29.6)
Assessed for walking aid	273	65 (23.8)
Assessed for daily living appliances/aids	284	52 (18.3)
Assessment of pain	426	240 (56.3)
Advised paracetamol	424	312 (73.6)
Offered stronger painkillers	421	132 (31.4)
Offered anti-inflammatory medicine	422	229 (54.3)
Offered joint injection	429	239 (55.7)
Conversation about knee replacement surgery	362	223 (61.6)
Discussed follow-up appointment to monitor OA and evaluate treatment	427	144 (33.7)

* Excluding "not applicable" and "do not remember"

Conclusion: There is room for improvement from the patients' perspective to increase the quality of knee OA care in the Netherlands.

References:

- [1] Østerås N, et al. Arthritis Care Res (Hoboken). 2013 Jul;65(7):1043-51.
- [2] Østerås N, et al. RMD Open. 2015 Oct 20;1(1):e000136.
- [3] Blackburn S, Res Invol Engagem. 2016 Mar 17;2:5.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.3188

FRI0646-HPR MAPPING THE PATIENT JOURNEY OF NON-RADIOGRAPHIC AXIAL SPONDYLOARTHRITIS: PERSPECTIVE OF PROFESSIONALS AND PATIENTS

T. Oton¹, C. Sastré², L. Carmona¹. ¹InMusc Instituto de Salud Musculoesquelética, Madrid, Spain; ²Novartis Farmacéutica, S.A., Barcelona, Spain

Background: Non-radiographic axial spondyloarthritis (nr-ax-SpA) is a relatively new disease classification that has generated controversy among payers.

Objectives: To explore the perspective of patients and health care professionals (HCPs) on the journey from first symptoms to a diagnosis of non-radiographic axial spondyloarthritis (nr-ax-SpA), in order to identify gaps and unmet needs.

Methods: Qualitative study in two phases: (1) focus groups with HCPs and personal interviews with patients; (2) nominal group in which results were discussed with all stakeholders and possible solutions were proposed. Content analysis, patient journey mapping, and ideas generation techniques were used.

Results: Five focus groups were organised with rheumatologists, GP, orthopaedic surgeons, physiotherapists, and radiologists, and six patient interviews were held. HCPs recognised poor communication among specialists and contradictory or redundant approaches. Non-rheumatologists recognise poor training on spondyloarthritis, difficulty in identifying red-flags, and biases in differential diagnosis. Rheumatologists recognise that SpA nomenclature can be confusing, nevertheless nr-ax-SpA term is defining an early stage of ankylosing spondylitis, and it could lead to over-diagnosis.

Most of the patients agreed in the narrative of a very long journey with a multitude of diagnoses, mostly wrong, ineffective treatments and much frustration; acknowledging the need for psychological support during the process and the importance of receiving a diagnosis in order to cope with the disease.

The participants in the nominal group meeting recognised and discussed the problems derived from the diagnostic delay and care gaps that clearly affect people with nr-ax-SpA (Table 1).

Table 1. Problems recognised by the different actors involved in the journey.

Problem	Recognised by					
	Pt	PT	Or	GP	Rh	Ra
Non-recognition of symptoms	X	X				
Delay first visit to doctor	X					
Cancel appointments	X					
Self-medication	X					
Disease denial	X					
Invisibility	X					
Lack of adherence	X					
Ignorance of medication	X					
Unclear symptoms	X					
No clinical filter by back problems		X		X		
Treatments variability		X				
Ineffective protocols			X			
Lack of time		X	X	X	X	
Lack of resources (human and material)		X	X	X		
Lack of commitment		X	X	X	X	X
Not outcome measurement		X	X	X	X	
Inadequate knowledge/training		X	X	X		
Few explanations / patient education		X	X	X	X	
Focused on "our" diagnostic codes		X	X	X	X	X
No relation between specialties		X	X	X	X	X
Prioritization of tests over solutions		X		X		X
Labelling patients (prejudice)		X	X	X	X	
Inadequate referral circuits		X	X	X	X	X
Demotivating delays			X			
Limited medical history / little research			X			
Temporality of work contracts				X		
Limited access to tests		X				
Non-sustainability threat				X		
Lack of specialised support				X		
Diagnostic dispersion				X		
Too much weight of local issues				X		
Absence of protocols or outdated		X		X		
Poor information transmission in all directions	X	X	X	X	X	X
Focus on pharmacological treatments					X	
Ignorance of others' roles					X	
Gender bias					X	
Incomplete order forms						X

Abbreviations: Pt, patient; PT, physical therapist; Or, orthopaedic surgeon; GP, general practitioner; Rh, rheumatologist; Ra, radiologist.

The following were indicated as possible solutions: (1) Improving relations between specialties, (2) High resolution consultations, (3) Rethinking disability scales, (4) Better information, (5) Visibility, (6) Resource maps and (7) Citizen training.

Conclusion: The patient's journey with an nr-ax-SpA is long, complicated and frustrating for both the person who experiences it and the HCPs who care for them. It is necessary to improve the knowledge about nr-ax-SpA among non-rheumatology health HCPs along with low back pain in general, among doctors and the general population, as well as other feasible measures that affect multiple levels.

Disclosure of Interests: Teresa Oton Consultant of: Novartis Farmaceutica, SA, Pfizer, S.L.U., Merck Sharp & Dohme España, S.A., Roche Farma, S.A, Sanofi Aventis, AbbVie Spain, S.L.U., and Laboratorios Gebro Pharma, SA (All through institution), Carlos Sastré Employee of: YES; I'm Medical Advisor in Novartis Spain, Loreto Carmona Grant/research support from: Novartis Farmaceutica, SA, Pfizer, S.L.U., Merck Sharp & Dohme España, S.A., Roche Farma, S.A, Sanofi Aventis, AbbVie Spain, S.L.U., and Laboratorios Gebro Pharma, SA (All through institution)

DOI: 10.1136/annrheumdis-2020-eular.104

FRIDAY, 05 JUNE 2020

Rehabilitation

FRI0647 COMPARATIVE EFFECTIVENESS OF LAND AND WATER-BASED EXERCISE PROGRAMS ON FATIGUE IN WOMEN WITH FIBROMYALGIA: PRELIMINARY FINDINGS FROM THE AL-ÁNDALUS RANDOMISED CONTROLLED TRIAL.

B. Gavilán Carrera^{1,2}, V. Segura-Jiménez³, P. Acosta-Manzano^{1,2}, M. Borges Cosic^{1,2}, F. Estévez-López⁴, M. Delgado-Fernández^{1,2}. ¹Faculty of Sport Sciences, University of Granada, Department of Physical Education and Sports, Granada, Spain; ²Sport and Health University Research Institute (iMUDS), Granada, Spain; ³Faculty of Education Sciences, University of Cádiz, Department of Physical Education, Puerto Real, Spain; ⁴Erasmus MC University