DOI: 10.1136/annrheumdis-2018-eular.5407

OP0181

PATIENT PERSPECTIVES OF PEOPLE WITH PRIMARY SJÖGREN'S SYNDROME: A MULTICENTRE QUALITATIVE EUROPEAN STUDY

J. Unger¹, M. Mattsson^{2,3}, R. Dragoi⁴, C. Boström³, F. Buttgerit⁵, A. Lackner⁶, T. Witte⁷, B. Raffener⁸, P. Peichl⁹, J. Hermann⁶, C. Dejaco^{6,10}, T. Stamm¹¹. ¹FH JOANNEUM, University of Applied Sciences, Bad Gleichenberg, Austria; ²Sunderby Hospital, Department of Physiotherapy, Luleå; ³Karolinska Institutet, Department of Neurobiology, Care Sciences and Society, Stockholm, Sweden; ⁴Victor Babes University of Medicine and Pharmacy Timisoara, Timisoara, Romania; ⁵Charité University Medicine, Berlin, Germany; ⁶Medical University Graz, Graz, Austria; ⁷Medical University of Hannover, Hannover, Germany; ⁸Hospital of Bolzano, Bolzano, Italy; ⁹Evangelic Hospital of Vienna, Vienna, Austria; ¹⁰Hospital of Bruneck, Bruneck, Italy; ¹¹Medical University Vienna, Vienna, Austria

Background: Primary Sjögren's syndrome (pSS) is one of the most common systemic autoimmune disorders and leads to an impaired health related quality of life. However, treatment mainly focuses on the management of physical manifestations. Little is known about the lived experiences of people with pSS, including the impact on people's life, functioning and their social relationships.

Objectives: To explore the perspectives of people with pSS from different European countries with various cultural backgrounds in order to achieve a broad understanding of concepts that are important and meaningful to people with pSS. This study is a part of a project which aims to evaluate the coverage of the patient perspectives by patient reported outcome measures in pSS, which is funded by the Austrian Association of Rheumatology.

Methods: A multicentre focus group study was performed in five European countries, namely Austria, Germany, Italy, Romania and Sweden. Patients were recruited from the outpatient clinics of the local centres. Focus groups were chaired by a trained moderator and followed an interview guide which included questions about impairments and limitations in body structures, body functions, activities and participation as well as contextual factors and resources, such as coping strategies. Focus groups were audiotaped and transcribed. We conducted a content-analysis of each focus group and subsequently combined the extracted concepts from each country, using the International Classification of Functioning, Disability and Health as a frame of reference.

Results: A total of 12 focus groups was conducted in seven participating centres in five countries. Fifty people (48 women; 96%) with pSS participated in the focus groups (ranging from two to four groups per country). All focus groups had a total duration of 1030 min and resulted in 252 pages of transcript. From qualitative analysis we derived concepts meaningful to people with pSS from all countries, especially those concepts that were linked to a physical dimension. However, we identified differences in the description of these experiences in daily life, for example for pain-concerning sensations or for the impact on social relationships. Furthermore, the attitudes towards the treatment and towards the disease differed between the participants. People with pSS had various coping strategies, such as gaining more knowledge about the disease or utilising non-pharmacological treatment.

Conclusions: This is the first multicentre qualitative European study which investigated the patient perspectives in pSS with a cross-cultural understanding. Clinicians, health professionals and researchers need to know about the perspectives, experiences and needs of people with pSS in order to ensure a comprehensive treatment.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.4699

THURSDAY, 14 JUNE 2018

The crystal maze – etiology and management

OP0182

GOUT AND DEMENTIA IN THE ELDERLY: A MEDICARE CLAIMS STUDY

J.A. Singh, J.D. Cleveland. University of Alabama at Birmingham, Birmingham, USA

Background: The pursuit of a link between gout/hyperuricemia and dementia has led to contradictory results. Most observational studies, including population-based studies, showed that hyperuricemia was associated with a higher risk of dementia and less cognitive dysfunction, while a few studies found hyperuricemia to be associated with a lower risk of dementia. Recently, a large French population-based study in the elderly (65 years or older) showed that hyperuricemia was associated with a higher risk of dementia and with MRI changes of ageing in the brain.

Objectives: To assess whether gout in the elderly is associated with a risk of incident dementia.

Methods: We used the 5% Medicare claims data for this observational cohort study. We used multivariable-adjusted Cox proportional hazard models to assess the association of gout with incident dementia, adjusting for potential confounders/covariates including demographics (age, race, gender), comorbidities (Charlson-Romano comorbidity index), and medications commonly used for cardiac diseases (statins, beta-blockers, diuretics, and angiotensin converting enzyme (ACE)-inhibitors) and gout (allopurinol and febuxostat).

Results: In our cohort of 1.23 million Medicare beneficiaries, 65 324 had incident dementia. The crude incidence rates in people without and with gout were 7.36 and 13.58 per 1000 person-years, respectively. In multivariable-adjusted analyses, gout was independently associated with a significantly higher hazard ratio of incident dementia, with a hazard ratio [HR] of 1.17 (95% CI, 1.13, 1.21); sensitivity analyses confirmed the main findings. Compared to age 65 to <75 years, older age groups were associated with 3.3 and 6.3-fold higher hazards of dementia; hazards were also higher for females, Black race or people with higher medical comorbidity.

Subgroup analyses indicated that gout was significantly associated with dementia in patients without key comorbidities (CAD, hyperlipidemia, CVD, diabetes, hypertension) with HR ranging 1.20–1.57, but not in patients with each of these comorbidities, except CAD, with HR 0.97–1.07 (table 1).

Abstract OP0182 – Table 1. Association of gout with incident dementia, in pre-defined subgroups of presence/absence of CAD, hyperlipidemia, CVD, diabetes or hypertension

	Multivariable-adjusted (Model 1)		Multivariable-adjusted (Model 1)	
	HR (95% CI)	P-value	HR (95% CI)	P-value
	No CAD		CAD	
Gout	1.20 (1.15–1.25)	<0.0001	1.07 (1.01–1.14)	0.032
	No Hyperlipidemia		Hyperlipidemia	
Gout	1.33 (1.27–1.40)	<0.0001	1.02 (0.97, 1.07)	0.56
	No CVD		CVD	
Gout	1.23 (1.18–1.28)	<0.0001	0.97 (0.90–1.05)	0.46
	No Diabetes		Diabetes	
Gout	1.24 (1.19–1.29)	<0.0001	1.04 (0.98–1.10)	0.23
	No Hypertension		Hypertension	
Gout	1.57 (1.46–1.68)	<0.0001	1.01 (0.97–1.05)	0.76

Gout*CAD p-value<0.0001; Gout*hyperlipidemia p-value<0.0001; Gout*CVD p-value<0.0001;

Gout*diabetes p-value<0.0001; Gout*hypertension p-value<0.0001;

Conclusions: Gout was independently associated with 17%–20% higher risk of incident dementia in the elderly. Future studies need to understand the pathogenic pathways involved in this increased risk.

Acknowledgements: This material is the result of work supported by research funds from the Division of Rheumatology at the University of Alabama at Birmingham and the resources and use of facilities at the Birmingham VA Medical Centre, Birmingham, Alabama, USA.

Disclosure of Interest: J. Singh Grant/research support from: Takeda, Savient, Consultant for: Savient, Takeda, Regeneron, Merz, Iroko, Bioiberica, Crealta/Horizon and Allergan pharmaceuticals, WebMD, UBM LLC and the American College of Rheumatology, J. Cleveland: None declared

DOI: 10.1136/annrheumdis-2018-eular.7595

OP0183

ASSOCIATION BETWEEN HFE GENOTYPES AND CLINICAL SEVERITY CHARACTERISTICS OF CALCIUM PYROPHOSPHATE CRYSTAL ARTHRITIS

F. Perez-Ruiz, S.P. Chinchilla, J. Atxotegi. Rheumatology Division of Cruces Hospital and University of the Basque Country, Baracaldo, Spain

Background: Several metabolic disturbances that reduce the activity of pyrophosphatases have been associated with development of calcium pyrophosphate crystal arthritis (CPPCA), but there is scarce data on their influence on clinical manifestations, as such disease-specific variables are not recorded in most available databases.

Objectives: To evaluate factors associated to severity of clinical joint involvement in patients with definite CPPCA.

Methods: Transversal study with prospective recruitment of cases (patients with CPPCA diagnosis confirmed by microscopy showing CPP crystals within

leucocytes in synovial fluid plus presence of X-ray chondrocalcinosis in at least one joint) and controls (patients with synovial effusion shown to have no CPP crystals and no chondrocalcinosis in hands and knee X-rays), paired by age and gender. Patients with hemochromatosis or primary hyperparathyroidism were not included. General variables were included along with plausible metabolic variables (Ca, P, Mg, iPTH, iron saturation [satFe%], ferritin, diuretics and type of diuretic, and HFE genotype), and distribution of joint involvement (mono-oligo-polyarticular) and clinical manifestations (acute [A-CPPCA] and chronic inflammatory [CI-CPPCA]), as in EULAR recommendations.

Results: 340 patients and 316 controls were recruited, 53% were men, age at inclusion was 67±10 year (IC range 62–75), time from onset of symptoms 5.2±5.3 year (IC range 1–8). Regarding cases, A-CPPCA was present in 147 (43.2%), CI-CPPCA in 193 (56.8%), with monoarticular involvement in 102 (30.0%), oligoarticular in 176 (51.8%), and polyarticular in 62 (18.2%). Patients showed higher serum ferritin levels and lower Mg levels than controls (253 and 2.00 vs 204 and 2.08, respectively), along with higher rate of HFE gene mutations (Odds ratio 2.30, 95% CI: 1.66 to 3.20). Genotypes including homozygous mutations of H63D allele, heterozygous mutations for C282Y allele, and double heterozygous mutations for C282Y and H63D were statistically associated with higher frequency of polyarticular involvement and with CI-PPA (figure 1). Clinical variables were also associated with higher satFe% levels, but not Mg or ferritin levels. S65C gene mutations were not increased in patients compared to controls and did not show any association with clinical phenotype.

Abstract OP0183 – Table 1 Rate (%) of polyarticular and chronic inflammatory clinical pattern impact of presence of any mutation and genotypes of HFE genes

Conclusions: Patients with definite CPPCA show differences in serum Mg and Ferritin levels compared to that of controls, and may contribute, along with other factors, to development of CPPCA. Nevertheless, only presence of some HFE genotypes involving C282Y and H63D genes were associated with more severe phenotype of clinical involvement.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.4775

OP0184 THE FREQUENCY OF FLARES IN SUBJECTS WITH CHRONIC REFRACTORY GOUT TREATED WITH PEGLOTICASE IS RELATED TO VARIATION IN THE LEVEL OF PLASMA URATE

L. Calabrese¹, T. Fields², A. Yeo³, P. Lipsky⁴. ¹Cleveland Clinic, Cleveland; ²Weill Cornell Medical College, New York; ³Horizon Pharma, Lake Forest; ⁴AMPEL BioSolutions LLC, Charlottesville, USA

Background: Lowering plasma urate in subjects with gout is associated with an increase in flares because of an altered equilibrium between soluble urate and uric acid crystals.¹ Details of the relationship between plasma urate lowering and gout flares have not been fully delineated. Pegloticase is a mammalian recombinant uricase conjugated to polyethylene glycol approved for the treatment of chronic gout refractory to conventional oral urate lowering therapy.²⁻⁴ Results from the two 6 month randomised clinical trials (RCTs) of pegloticase showed that during months 1–3, there was an increase in pegloticase-treated subjects experiencing gout flares vs those receiving placebo. However, the reported analysis did not separate results for subjects who did and did not respond to pegloticase with a sustained reduction in plasma urate levels or relate flares to plasma urate levels.

Objectives: To determine factors associated with the occurrence of flares in subjects who did and did not respond to pegloticase in the two RCTs for this therapy.

Methods: This analysis used results from 2 pivotal RCTs² of pegloticase (8 mg every 2 weeks [q2] or every 4 weeks [q4]) vs placebo in subjects with chronic refractory gout. A responder was defined as a subject with plasma urate <6.0 mg/dL ≥80% of the time from the week-9 infusion to just prior to the week-13 infusion and from the week-21 infusion to the week-25 final study visit. Gout flares were defined as acute joint pain and swelling requiring treatment. Gout flare prophylaxis

(colchicine, 0.6 mg once or twice daily, or a NSAID) was initiated 1 week before the first infusion and continued throughout the study.

Results: There were increases in the frequency of subjects experiencing flares and the mean flare frequency in the pegloticase group vs placebo during the first 3 months of the trial (figure 1A). In contrast, there were persistent reductions in both outcomes during months 3–6 (figure 1B). The increase in flares in the first 3 months was most evident (p=0.0006) and the decrease during the second 3 months was least marked (p=0.0006) in subjects receiving q4 pegloticase. Previous analysis indicated that q2 pegloticase caused persistently lowered plasma urate in responders, whereas q4 administration resulted in a more saw tooth pattern.⁵ Multivariate linear regression analysis indicated that the only variable associated with flares in the treated subjects was the absolute change in plasma urate prior to these events. Assessment of plasma urate at both 2 weeks and immediately before flares indicated that larger differences between these two values were associated with increased flare occurrence (p=0.002).

Conclusions: Flares associated with pegloticase treatment in subjects with chronic refractory gout were increased most markedly in responders to monthly administration and were significantly associated with fluctuations in plasma urate levels. Such fluctuations are much more common with monthly administration of pegloticase vs the recommended biweekly treatment regimen.

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Disclosure of Interest: L. Calabrese: None declared, T. Fields Consultant for: Horizon Pharma, Takeda, Ironwood, Speakers bureau: Horizon Pharma, Takeda, Ironwood, A. Yeo Consultant for: Horizon Pharma, P. Lipsky Consultant for: Horizon Pharma

DOI: 10.1136/annrheumdis-2018-eular.5961

OP0185 EMERGENCY DEPARTMENT VISITS FOR GOUT: A DRAMATIC INCREASE IN THE PAST DECADE

A. Mithal¹, G. Singh². ¹ICORE; ²Stanford University, Woodside, USA

Background: Several studies have suggested that the prevalence of gout has been increasing worldwide, perhaps related to lifestyle factors.¹⁻³ In the US, the NHANES study found a significantly higher age-adjusted prevalence (3.9%) in 2007–2008 than the estimate in 1988–1994 (2.9%). This trend paralleled an observed increase in hyperuricemia.¹

Objectives: To study emergency department visits due to gout in the US over 9 years (2006 to 2014).

Methods: The Nationwide Emergency Department Sample (NEDS) is the largest all-payer emergency department (ED) database in the United States, yielding national estimates of hospital-based ED visits. It contains information from 31 million ED visits at 945 hospitals in 34 states that approximate a 20-percent stratified sample of U.S. hospital-owned EDs. Weighted, it estimates roughly 143 million ED visits. We studied all ED with primary diagnosis of Gout (ICD9 code 274.xx) from 2006–2014 and calculated prevalence in different age groups. Population data was obtained from US census bureau.

Results: Over last 9 years, 1.7 million people visited EDs with a primary diagnosis of acute gout. The total number of ED visits per year increased from 1 68 580 in 2006 to 2 13 780 in 2014, an increase of 26.8%. The prevalence of emergency room visits with primary diagnosis of gout increased from 56.5/100,000 population