SAT0641-HPR FACTORS ASSOCIATED WITH COGNITIVE IMPAIRMENT IN KOREAN ADULTS WITH RHEUMATOID ARTHRITIS

S. Y. Shin¹, J. H. Lee², B. Y. Youn². ¹Inje University, Department of Nursing, College of Medicine, Busan, Korea, Rep. of (South Korea); ²Inje University Ilsan Paik Hospital, Division of Rheumatology, Ilsan, Korea, Rep. of (South Korea)

Background: For persons with chronic diseases including rheumatoid arthritis (RA), undamaged cognitive capacity is critical for daily functioning, treatment compliance, and self-management. Disease-specific features of RA such as systemic chronic inflammation or increased comorbid cardiovascular disease (CVD) risk may be closely linked to neurocognitive dysfunction in RA patients [1]. However, the evidence of brain involvement in RA is very rare or even controversial and very little is known about the pathogenic mechanisms of cognitive decline in persons with RA.

Objectives: This study explored the prevalence of cognitive impairment in Korean adults with RA using a set of computerized neurocognitive tests and the factors that were significantly associated with cognitive impairment.

Methods: Individuals with RA were recruited by their rheumatologists during follow-up visits at one university hospital in Korea. After getting signed consents, a trained research nurse assessed participants with a range of physical, psychosocial, and biological metrics. Cognitive function was assessed using a set of 6 computerized neurocognitive tests yielding 18 indices covering a range of cognitive domains. Subjects were classified as 'impaired' if they performed 1 SD below age-based population norms on each test [2]. The total cognitive function score was calculated by summing the transformed scores, ranging from 0 (no impairment) to 18 (worst impairment). Multiple linear regression analyses were conducted to identify the significant factors influencing cognitive impairment.

Results: Sixty five subjects with a mean ($\pm$ SD) age of 61.9 ($\pm$ 10.0) years were included. 85% were female, 89% were married, and 76% had less than 12 years of education. Mean disease activity score (DAS-28) was 2.3 ($\pm$ 1.3) and mean disease duration was 9.8 ($\pm$ 8.7) years. Mean functional limitations score (HAQ) was 0.3 ($\pm$ 0.5) and mean CVD risk factors were 2.3 ($\pm$ 1.5). Total cognitive function score was 11.1 $\pm$ 4.0 (2-18). The proportion of persons who were classified as cognitively impaired on each test ranged from 25% to 92%. The proportion of persons classified as cognitively impaired on the quarter of total subtests (5 or more out of 18 subtests) was 94%. The multivariate regression model was statistically significant and accounted for 39% of the variance in cognitive impairment ($F=5.26$, $p<.001$). Education ($\beta=-0.32$, $p=0.010$), family income ($\beta=-0.26$, $p=0.040$), and cardiovascular disease risk factors ($\beta=0.27$, $p=0.025$) were significantly associated with cognitive impairment controlling for other covariates.

Conclusion: A significant number of RA patients were cognitively impaired. Less education, less family income, and increased cardiovascular disease risk factors were the significant factors affecting cognitive impairment in RA. The findings of this study suggest that the burden of cognitive impairment in RA patients is significant, and future studies identifying specific etiological contributors to cognitive impairment are warranted.

References:

- [1] Wallin, K., Solomon, A., Kreholt, I., Tuomilehto, J., Soininen, H., & Kivipelto, M. (2012). Midlife rheumatoid arthritis increases the risk of cognitive impairment two decades later: a population-based study. *Journal of Alzheimer's Disease*, 31(3), 669-676.
- [2] Kozora, E., Ellison, M. C., & West, S. (2004). Reliability and validity of the proposed American College of Rheumatology neuropsychological battery for systemic lupus erythematosus. *Arthritis Care & Research*, 51(5), 810-818.

Acknowledgments: This research was supported by the 2018 Inje University research grant (No.20180148).

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.649

SAT0642-HPR CAPTURING THE UNMET NEEDS OF WOMEN WITH SYSTEMIC LUPUS ERYTHEMATOSUS AND IDENTIFYING THE INFORMATION NEEDED IN PHYSICIAN-PATIENT COMMUNICATION

S. Shoela¹, A. Beltagy¹, F. Fayed², M. Morsy¹. ¹Alexandria Faculty of Medicine, Internal Medicine Department, Alexandria, Egypt; ²Alexandria University Student Hospital, Internal Medicine Department, Alexandria, Egypt

Background: Systemic lupus erythematosus (SLE) is known to affect the reproductive health of female patients in various ways. Identifying the unmet information and needs of women with SLE about the impact of the disease on maternal health, pregnancy, family planning and contraception is of paramount importance.

Objectives: Our aim was to understand the information needs of women with SLE and capture the gaps in the knowledge of reproductive issues.

Methods: We interviewed 284 female patients with SLE in three centers all affiliated to Alexandria Faculty of Medicine, using a 41 multiple-choice based questionnaire about pregnancy counselling, contraception and the use of drugs during pregnancy. The disease knowledge index (DKI) created by Andreoli et al., (1) was applied to assess the global knowledge and information of patients on the impact of SLE on reproductive health.

Results: Forty percent of patients declared to have performed the last gynecological visit since 3 years, versus (49.3 %) patients who have done their last visit within a year. 255 patients reported to have received counselling about contraception; 141 of which provided by gynecologists and not rheumatologists. 114 (40.1%) patients have never been asked about the desire to have children. Regarding the methods of contraception used, 104 (36.6%) patients stated that they don't know there are different forms of pills and have never heard of the progestin-only pills. As for the DKI, patients showed proper knowledge about the possibility for SLE women to fall pregnant, have healthy children and the fact that lupus flares up during pregnancy. 118 (41.5%) of the patients didn't know whether children of women with SLE carry a higher risk of having general health problems or not. Also, a great proportion of patients chose "do not know" for the possibility that children could inherit the mother's disease (49.6%). Concerning the drugs used during pregnancy, surprisingly, (34.2%) patients stated that Hydroquinone shouldn't be used during pregnancy, and (28.9%) didn't know if it is compatible with pregnancy or not. Nearly half the patients who were interviewed didn't know that Methotrexate, Cyclophosphamide and Mycophenolate mofetil are contraindicated in pregnancy. About 80% of the patients stated that SLE influenced the number of the family size they desired in various ways and 134 (47.2%) patients blamed the disease for not being able to take care of their children. Expectedly, SLE impacted patients' marriages in different forms; 27 (9.5%) of the patients claimed that the disease led to their divorce, 52 (18.3%) explained that their spouses constantly complained about their illnesses, and 19 (6.7%) refused to answer this question. A total of 181 (63.7%) patients had spontaneous abortions, among which 181 (63.7%) patients before being diagnosed with SLE, and 134 (74%) of these abortions occurred in the first trimester.

Conclusion: There is a crucial unmet need for women with SLE, identified as a wide gap in communication about reproductive issues. This is influenced by the quality of physician-patient communication, as well as rheumatologist-obstetrician communication.

References:

- [1] Andreoli L, Lazzaroni MG, Carini C, Dall'Ara F, Nalli C, Reggia R, et al. "Disease knowledge index" and perspectives on reproductive issues: A nationwide study on 398 women with autoimmune rheumatic diseases. *Joint, bone, spine: revue du rhumatisme*. 2019;86(4):475-81.

Acknowledgments: I wish to express my deepest gratitude to Dr. Laura Andreoli and her colleagues for allowing us to use their questionnaire in our study.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.4508

SAT0643-HPR NURSE-LED CARE FROM THE PERSPECTIVE OF PEOPLE WITH EARLY RHEUMATOID ARTHRITIS: A QUALITATIVE SYSTEMATIC REVIEW

A. M. T. Sweeney¹, C. McCabe¹, C. Flurey¹, J. Robson¹, A. Berry¹, P. Richards¹, M. Ndosi¹. ¹Faculty of Health and Applied Sciences, University of the West of England, Bristol, United Kingdom

Background: Nurse-led care has been shown to be clinically effective and cost effective in rheumatoid arthritis (RA) but the role of the nurse in early RA is not well defined. Evidence for processes of care in RA is limited and it is not known how well rheumatology nurse-led clinics meet care needs of people with early RA.

Objectives: The aim of this study was to develop an understanding of rheumatology nurse-led care from the perspective of people with early RA.

Methods: A qualitative systematic review was conducted. The review protocol is published in the International prospective register of systematic reviews. In March 2019, the following databases were searched: MEDLINE, EMBASE, CINAHL, PsycINFO and OpenGrey. Due to lack of studies in early RA this review included adults with early and established inflammatory arthritis, qualitative studies with data on patients' perspectives of nurse-led care, published in peer-reviewed journals in English between 2010 and 2019. Two reviewers screened titles, abstracts and full texts. Data were extracted and managed in tables. Joanna Briggs Institute Critical Appraisal Checklist was used for quality assessment of the included studies. A thematic synthesis was undertaken using the framework of Thomas and Harden.¹

Results: The search identified 1034 records. After screening and assessing for eligibility, 8 qualitative studies were included in the review (133 patients), 2 studies included people with early RA. Three main themes were identified (Figure 1).