

in routine care. The outcomes were I) SB2 retention rate (RR) II) SB2 discontinuation rate due to a presumed NE, defined as lack of efficacy with no objective criteria for increased inflammation or non-objective and non-specific adverse event, either occurring after the switch and disappearing after back-switch or change of biologic. Criteria for NSAE/NSS in the historical cohort were the same lack of efficacy or subjective adverse events and disappearance after change of biologic BD. Medium-term (12 months) SB2 outcomes were assessed and compared with I) the data obtained in the short-term (34 weeks) II) the data from an historical cohort of CIRP patients treated by OI in the same rheumatology department, using Kaplan-Meier survival curve.

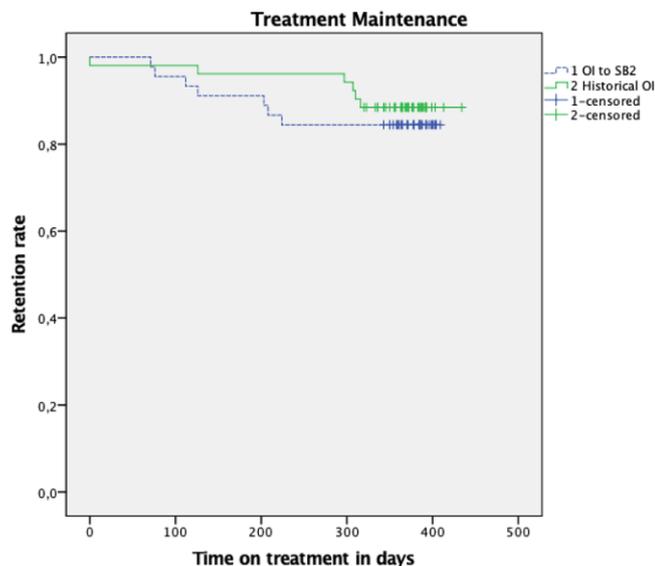
Results: Forty-five patients were prospectively included for the switch from March 2018 to August 2018: 17 with rheumatoid arthritis (RA), 28 with spondylarthritis (SpA); 55% were women, mean age was 53.2 (SD: 2,1), and mean time under OI was 113.5 (SD9.3). For the historical cohort, the 52 patients treated with OI between December 2016 and January 2017 were included and their data collected at baseline and one year. Fifty-nine percent were women, mean age at inclusion was 50.25 (1.2), and mean time under OI was 94.8 (9.4).

SB2 RR did not differ from the OI RR in the historical cohort: 91.2% and 96.2% respectively at 34 weeks ($p = 0.41$); 84.4% and 88.5% respectively at 12 months ($p = 0.52$) (figure 1). The SB2 RR was significantly higher than in three other European cohorts at 34 weeks (mean RR 73.6%, $p < 0.05$, ref.1) but not at 12 months (mean RR 80.9%, ref.2,3,4).

SB2 and OI discontinuations due to NSAE/NSS at 34 weeks were 2,2 % and 1.9% respectively; at 12 months 6,6% and 1.9% respectively ($p = 0.6$).

Conclusion: An intervention based on a tailored communication with a prominent role of nurses was effective in reducing the NE when switching from OI to SB2 in the short term, compared with an historical cohort and other European cohorts. The one-year follow-up showed no statistical difference in RR or NE compared with our historical cohort. The present study shows that appropriate interventions may be developed to improve the outcome of switches to biosimilars.

Figure 1: Treatment withdrawal free survival curves (SB2 in switched cohort and OI in historical cohort).



Kaplan Meier survival curves. Comparison with Log-Rank test between OI to SB2 cohort and historical OI cohort, $p = 0.520$. OI : original infliximab.

References:

- [1] Petit J. Ann Rheum Dis, volume 78, supplement 2, year 2019, page A1447
- [2] Glintborg B. et al. Ann Rheum Dis 2017;76:1426–31.
- [3] Nikiforou E. et al. Expert Opin Biol Ther 2015;15:1677–83.
- [4] Boone NW. et al. Eur J Clin Pharmacol 2018;:1–7.

Acknowledgments: Dr Margaux Boisson Service de rhumatologie du Professeur Kahan, Hôpital Cochin, APHP.

Disclosure of Interests: Juliette Petit: None declared, Marie Antignac: None declared, Karine Louati: None declared, Sandra Desouches: None declared, Nathalie DEPARIS: None declared, Regine Baratto: None declared, Rosemarie POILVERD: None declared, Sylvie Dartout: None declared, Francis Berenbaum Grant/research support from: TRB Chemedica (through institution), MSD (through institution), Pfizer (through institution), Consultant of: Novartis, MSD, Pfizer, Lilly, UCB, Abbvie, Roche, Servier, Sanofi-Aventis, Flexion Therapeutics, Expanscience, GSK, Biogen, Nordic, Sandoz, Regeneron, Gilead, Bone Therapeutics, Regulaxis,

Peptinov, 4P Pharma, Paid instructor for: Sandoz, Speakers bureau: Novartis, MSD, Pfizer, Lilly, UCB, Abbvie, Roche, Servier, Sanofi-Aventis, Flexion Therapeutics, Expanscience, GSK, Biogen, Nordic, Sandoz, Regeneron, Gilead, Sandoz, Catherine Beauvais Speakers bureau: Abbvie, MSD, Roche, UCB, Mylan, Sanofi
DOI: 10.1136/annrheumdis-2020-eular.4388

FRI0631-HPR

SUPPLEMENTATION WITH CREATININE, GLUTAMINE AND B-HYDROXY-B-METHYLBUTYRATE IMPROVES MUSCLE MASS AND STRENGTH AND QUALITY OF LIFE IN PATIENTS WITH SARCOPENIA AND KNEE OSTEOARTHRITIS: THE DIMMUS RANDOMIZED STUDY

H. Riera¹, G. Colantuoni¹, M. Quintero¹, F. Fernández². ¹Universidad de Los Andes- Servicio de Reumatología del Instituto Autónomo Hospital Universitario de Los Andes, Mérida, Venezuela (Bolivarian Republic); ²Service of Rheumatology, Clínica Razetti of Barquisimeto, Barquisimeto, Venezuela (Bolivarian Republic)

Background: Sarcopenia is characterized by progressive loss of muscle mass, strength, and physical function, and often accompanies other diseases such as osteoarthritis (OA)¹. Both conditions are also significantly associated with poor quality of life (QoL).

Objectives: A randomized controlled study was conducted to evaluate the effectiveness of creatinine, glutamine and β -hydroxy- β -methylbutyrate (HMB) supplementation in enhancing muscle mass and strength, physical function and QoL in adults with sarcopenia and knee OA.

Methods: Sixty-two patients aged 40 years and above with sarcopenia diagnosed according to the European Working Group on Sarcopenia and with knee OA according to the criteria of American College of Rheumatology were included in the study DIMMUS. The participants were randomly assigned into two groups of intervention (n=31) and control (n=31). The intervention group received oral nutritional supplementation daily plus standardized exercise programme for 12 weeks and the control group received only rescue analgesic medication and exercise training. Muscle mass (appendicular skeletal muscle mass index [ASMMI] estimated by the Baumgartner et al.'s equation), muscle strength (handgrip strength), physical function (4-m gait speed) and QoL (SARQoL) were measured before and after the 12-week intervention. Safety was also recorded by assessments of adverse events.

Results: There was no significant difference in baseline characteristics between the two groups (85.5% women, 63.5 \pm 9.6 years, body mass index of 26.8 \pm 4.5 kg/m², 83.9% Kellgren-Lawrence grade II OA and 91.9% mild sarcopenia). A statistically significant improvement in the mean change of ASMMI (3.7 \pm 1.0 kg/m² to 3.96 \pm 1.1 kg/m²; $P=0.0074$), handgrip strength (18.8 \pm 8.7 kg to 20.5 \pm 8.5 kg, $P=0.0089$), and SARQoL score (59.3 \pm 8.8 vs 70.7 \pm 16.6; $P=0.0003$) from baseline to 12 weeks was observed for the intervention group but not for the control group. Both groups showed significant improvements on 4-m gait speed (5.0 \pm 0.9 s to 4.4 \pm 0.9 s in the intervention group; 5.2 \pm 2.9 to 5.0 \pm 2.3 m in the control group; $P < 0.001$). One patient reported a treatment-related bad taste in the intervention group.

Conclusion: The findings of the present study demonstrated that the combined supplementation of creatinine, glutamine and HMB together with exercise training for 12 weeks may have a positive effect on the muscle mass and strength and QoL in adults with mild sarcopenia and OA. The results provide preliminary experiences and guidance for further clinical trials in both OA and sarcopenic patients.

References:

- [1] Kemmler W, Teschler M, Goisser S, Bebenek M, von Stengel S, Bollheimer LC, et al. Prevalence of sarcopenia in Germany and the corresponding effect of osteoarthritis in females 70 years and older living in the community: results of the FORMoSA study. Clin Interv Aging. 2015;10:1565-73.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.5777

FRI0632-HPR

PSYCHOLOGICAL PARTICULARITIES OF PATIENTS SUFFERING FROM MONOGENIC AUTO-INFLAMMATORY DISEASES.

N. Stepanenko¹, E. Fedorov¹, S. Salugin¹, S. Feoktistova². ¹V.A. Nasonova Research Institute of Rheumatology, Pediatric, Moscow, Russian Federation; ²Russian New University (RosNOU), Psychology and Pedagogics, Moscow, Russian Federation

Background: Monogenic auto-inflammatory diseases (mAID) are a group of severe chronic multisystemic diseases with recurring episodes of fever and other manifestations that significantly affect the patients' life quality. Moreover, the hyper expression of pro-inflammatory cytokines (IL1 β , etc.) observed in these patients may have a negative effect on the central nervous system.

Objectives: to study the state of the cognitive and emotional spheres in children suffering from monogenic auto-inflammatory diseases.

Methods: there were examined 22 children at the age of 7 to 17 years old diagnosed with CAPS-9, TRAPS-8, FMF-5. Among them there were 12 boys and 10 girls. The diagnosis in all the patients was confirmed through detection of pathogenic mutations in the NLRP3, TNFRSF1A and MEFV genes. The following methods were used: a clinical conversation; memory diagnostics (learning by heart of 10 words, a pictogram using cues taking into account the patients' age); attention diagnostics (Schulte tables); thinking diagnostics (establishing a sequence of events, "four is a crowd", simple analogies, interpretation of proverbs); emotional and communicative fields (the Eight-Color Luscher Test; CMAS (adaptation by A. Prikhozhan); STAI test, a drawing called "an animal that does not exist" and "a house-a tree-a man").

Results: The memory study revealed in all patients with TRAPS and FMF high and medium values of short-term and long-term memory, in patients with CAPS - a low level of short-term auditory-speech memory, information storage and indirect memorization in 1/3 of patients. In 100% of the examined patients with TRAPS, a significant decrease in all processes of attention and distribution of attention. In 1/3 of patients with CAPS, an increased exhaustion of attention was registered and in 11% - a decrease in its stability. In patients with FMF, attention disorders were not detected. In 44% of patients with CAPS, a decrease in the level of generalization and difficulties in establishing causal relationships were registered. In 25% of patients with TRAPS a decrease in the level of generalization, in 12.5% - difficulties in establishing cause-effect relationships, inertia of thinking in 37.5%. In 60% of patients with FMF: a decrease in the level of generalization, in 80%: difficulties in establishing cause-effect relationships, inertia of thinking in 20%. In the emotional sphere, patients with CAPS, TRAPS, and FMF demonstrated signs of aggression (11.1%, 20% and 20% of patients, respectively), communicative disorders (77.8% - 80% - 80%), and reduced social adaptation (55.5% - 80% - 80%), a tendency to form neurotic fears (22% - 40% - 40%). A high level of personal anxiety was noted in 1/3 of patients with CAPS and 40% of patients with FMF.

Conclusion: various psychological disorders in the cognitive and emotional fields were noted in the majority of the examined patients with monogenic auto-inflammatory diseases. In patients with TRAPS, attention processes are most significantly affected; in patients with CAPS, memory is more often affected. In patients with FMF, disorders in thinking processes are revealed more often. In the emotional sphere, most patients with all the three forms of AID note communicative disorders and social adaptation.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.4182

FRI0633-HPR PHYSICAL AND SOCIAL ACTIVITY OF PATIENTS SUFFERING FROM JUVENILE IDIOPATHIC ARTHRITIS

T. Shelepina¹

¹V.A.Nasonova Research Institute of Rheumatology, Pediatric, Moscow, Russian Federation

Background: Juvenile Idiopathic Arthritis (JIA) is a chronic, disabling disease of a childhood age that significantly limits the patient's capabilities and affects the life quality. Modern drug therapies can prevent most of the negative consequences of the disease and maintain satisfactory functional abilities of patients.

Objectives: to examine the nature of the daily physical and social activities of patients suffering from JIA.

Methods: the study included 236 patients aged from 4 to 17 years old undergoing in-patient treatment. Among them, 146 (62%) - polyarthritis and spreading oligoarthritis, including 13 (5.5%) - with damage to the eyes, persistent oligoarthritis - 60 (25%), including 26 (11%) with damage to the eyes, systemic JIA 22 (16%), enthesitis-associated 8 (3%). The patients were divided into the following age groups: pre-school age (4-6 years old) - 26 patients (11%), primary school age (7-10 years old) - 54 patients (23%); an average school age (11-12 years old) - 49 patients (21%), senior school age (13-15 years old) - 52 patients (22%), youth (16-17 years old) - 55 patients (23%). The assessment methods: collection of their pharmacological history, questioning (with an author's questionnaire) the parents of children aged from 4 to 10 years and older patients themselves, VAS pain evaluation, a CHAQ questionnaire.

Results: 10 (4%) patients received NSAID, 88 (38%) patients - synthetic basic anti-inflammatory drugs, biological therapy - 133 (56%), 5 patients (2%) did not receive any drug therapy. An average value of the VAS pain evaluation: 2.5 cm, the CHAQ functional insufficiency is low: 137 patients (58%), medium insufficiency in 88 patients (37%), a severe one in 11 patients (5%). Children's educational institutions were regularly visited by 199 (85%) patients, leisure activities were enjoyed by 90 (38%) patients; at that, the highest rate of leisure activities was recorded for the age group 11-12 years (67% of the entire group), daily walks were recorded in 172 (73%) patients, doing homework on a regular basis by 155 (66%) patients, regular doing exercises of therapeutic gymnastics recorded in 55 (24%) patients.

Conclusion: The social activity of patients suffering from JIA can be estimated as satisfactory, while their physical activity as inadequate. An adequate social and physical activation of patients with JIA being in the remission status is required.

This can be facilitated by educational programs for patients and their parents, a joint discussion of issues on the social and physical activity of patients and their parents with rheumatologists and rehabilitation therapy specialists.

Acknowledgments: I thank senior researcher, E. S. Fedorov MD for his help in completing the work and preparing abstracts

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.4208

FRI0634-HPR LEVEL OF PHYSICAL ACTIVITY IN ANTIPHOSPHOLIPID SYNDROME AND ITS RELATIONSHIP TO ATHEROSCLEROSIS PROGRESSION - ANALYSIS OF THE SERBIAN COHORT

A. Djokovic^{1,2}, L. Stojanovich³, N. Stanisavljevic⁴, G. Bogdanovic⁵, S. Djokic⁶.

¹University Clinical Hospital Center Bezanjska kosa, Cardiology, Belgrade, Serbia;

²Faculty of Medicine, University of Belgrade, Belgrade, Serbia;

³University Clinical Hospital Center Bezanjska kosa, Rheumatology, Belgrade, Serbia;

⁴University Clinical Hospital Center Bezanjska kosa, Hematology, Belgrade, Serbia;

⁵University Clinical Hospital Center Bezanjska kosa, Physical Medicine and Rehabilitation, Belgrade, Serbia;

⁶Clinical Center of Serbia, Clinic of Pulmonology, Belgrade, Serbia

Background: Systemic lupus erythematosus (SLE) and antiphospholipid syndrome (APS) are associated with an increased risk of developing cardiovascular diseases as a result of complex interaction between traditional risk factors, chronic inflammation and specific impact of antibodies on endothelium. There are very limited data regarding level of physical activity (PA) in APS patients.

Objectives: To analyze different domains of PA in Serbian APS patients and their possible relationship to clinical and laboratory criteria of the main disease.

Methods: From a large Serbian APS database comprehending 527 APS patients (371 Primary - PAPS, and 156 APS associated with other autoimmune diseases, predominantly systemic lupus erythematosus (SLE)) we interviewed 51 APS patients, age range of 15-69 years: 29 patients with primary APS (PAPS), 25 women, 4 men, age 44±11.50, and 22 APS/SLE, 18 women, 4 men, age 48.41±11.75, using a long form of The International Physical Activity Questionnaire (IPAQ), translated onto Serbian language. Data on last seven days of PA divided into leisure time PA, domestic and gardening (yard) activities, work-related PA and transport-related PA were acquired, and proposed scoring method was used. Based on the level of PA, patients were categorized to low, moderate or high level of PA. For the purpose of insight into atherosclerotic progression, we performed color Doppler scan of carotid arteries in all patients and presence of atherosclerotic plaques has been notified.

Results: Average total PA score was 7706.18±1177.97 MET-minutes/week. The greatest average values for different PA domains were for work (2733.21±6158.66 MET-minutes/week) and domestic/garden/yard (2522.31±3847.24 MET-minutes/week) and the lowest scores achieved in leisure time (500.87±695.45 MET-minutes/week). Majority of Serbian APS patients had low or moderate level of PA (37.3%, 43.1%, respectively) whereas lowest percentage was in high category of PA (19.6%). All domains of PA were significantly negatively correlated to age and BMI. There were no significant difference regarding PA scores between PAPS and APS/SLE patients. Although higher percentage of PAPS patients had high level of PA (27.65 compared to 9.1% of SLE/APS), the overall difference was not significant. There was no significant difference regarding antiphospholipid antibody (aPL) type or thrombotic/obstetric events presence. Significant difference occurred regarding presence of carotid arteries plaques. APS patients with lower PA scores had significantly higher prevalence of carotid arteries plaque especially for PA in transportation (p=0.004), and total PA (p=0.025)

Conclusion: Serbian APS patients at younger age, tend to have low or moderate level of PA, with the lowest level of activity in leisure time. Low level of PA was undoubtedly related to progression of atherosclerosis in these patients, emphasizing a need for PA promotion in APS.

Disclosure of Interests: Aleksandra Djokovic Speakers bureau: KRKA, Astra Zeneca, Actavis, Ljudmila Stojanovich: None declared, Natasa Stanisavljevic: None declared, Gordana Bogdanovic: None declared, Sandra Djokic: None declared

DOI: 10.1136/annrheumdis-2020-eular.2548

FRI0635-HPR PATIENTS' MOTIVATION AND GOALS FOR THUMB CARPOMETACARPAL OSTEOARTHRITIS SURGERY

E. M. H. Gravås¹, I. Kjekne¹, R. Nossu², R. E. Mehl Eide³, Å. Klokkeide⁴, K. Hoegh Matre², M. Olsen⁴, Ø. Andreassen¹, N. Osteras¹, A. T. Tveter¹.

¹Diakonhjemmet Hospital, Department of Rheumatology, National Advisory

Unit on Rehabilitation in Rheumatology, Oslo, Norway;

²Trondheim University Hospital, St. Olavs Hospital, Trondheim, Norway;

³Haukeland University Hospital, Bergen, Norway;

⁴Haugesund Rheumatism Hospital AS, Haugesund, Norway

Background: Osteoarthritis (OA) in the thumb carpometacarpal joint (CMCJ) is a prevalent disease which may lead to structural damage, severe pain and