- [3] Swardh E, Brodin N. 2016. Effects of aerobic and muscle strengthening exercise in adults with rheumatoid arthritis: a narrative review summarising a chapter in Physical activity in the prevention and treatment of disease (FYSS 2016). *Br J Sports Med* 50: 362-7.
- [4] Sveaas SH, Smedslund G, Hagen KB, Dagfinrud H. 2017. Effect of cardiorespiratory and strength exercises on disease activity in patients with inflammatory rheumatic diseases: a systematic review and meta-analysis. *Br J Sports Med* 51: 1065-72.
- [5] Regel A, Sepriano A, Baraliakos X, van der Heijde D, Braun J, Landewe R, Van den Bosch F, Falzon L, Ramiro S. 2017. Efficacy and safety of non-pharmacological and non-biological pharmacological treatment: a systematic literature review informing the 2016 update of the ASAS/EULAR recommendations for the management of axial spondyloarthritis. *RMD Open* 3: e000397.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.431

AB0874-HPR TELEMEDICINE CONSULTING IN RHEUMATOLOGY: IDENTIFIED PROBLEMS OF NEW TECHNOLOGY

O. Teplyakova¹, A. Sarapulova¹. ¹Ural State Medical University, Outpatients Department, Yekaterinburg, Russian Federation

Background: A feature of healthcare in 2020 was the work in conditions of massive incidence of COVID-19, limited and redistribution of human resources. One of the right decisions in these conditions is to organize schools for patients, which allow simultaneous education and convey the necessary information to a large number of people. The key aspects of the organization of telemedicine schools for patients are presented.

Objectives: To assess the feasibility of telemedicine schools for patients as a technology of modern health care in rheumatology.

Methods: The work was carried out by the method of a one-stage cross-sectional study of the questionnaire survey of participants of education in rheumatology, conducted in an on-line mode. The number of participants in rheumatology schools was 197 people, the results of the questionnaire were received from 36 respondents. The questionnaire based on the Google platform.

Results: 10 key principles of organizing online patient education at the present stage were identified: the use of distance technologies, the interest of a medical institution administration, the team approach, the technical possibilities of implementing schools, adaptation of lecture material for patients, the role of a specialized specialist in the educational process, patient participation, measurement efficiency and timely correction, development and improvement of educational technology for patients, desire for cooperation and exchange of experience.

Conclusion: The emergence of new opportunities related to online health education of the population, including educational activities for patients, opens up new prospects for improving clinical care aimed at promoting health and preventing disease.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.506

AB0875-HPR NON-PHARMACOLOGICAL AND PHARMACOLOGICAL APPROACHES TO THE MANAGEMENT OF PATIENTS WITH OSTEOARTHRITIS AND LIPID METABOLISM DISORDERS

I. Rogatkina¹, O. Korolik¹, V. Polyakov², G. Kravtsov², Y. Polyakova³. ¹Volgograd State Medical University, Hospital Therapy, Volgograd, Russian Federation; ²Volgograd State Medical University, Therapeutic Physical Education, Volgograd, Russian Federation; ³Federal State Budgetary Institution «Research Institute of Clinical and Experimental Rheumatology named after A.B. Zborovskiy», Treatment and Prevention of Joint Disease Laboratory, Volgograd, Russian Federation

Background: Attention is drawn to the frequent combination of osteoarthritis (OA) with cardiovascular disease. Non-specific inflammation plays a significant role in the pathogenesis of OA and atherosclerosis. Limiting the physical activity of patients with OA is an additional important factor aggravating the course of cardiovascular disease (CVD). Chronic pain syndrome, causing a neuroendocrine response, is often the cause of the development of complications of atherosclerotic disease. Dyslipidemia is the main cause of atherosclerosis and vascular thrombosis.

Objectives: To study variants of lipid metabolism disorders in female and male patients of different age groups with osteoarthritis.

Methods: Case histories of 90 patients with OA were analyzed. The average age of patients was 63.27 ± 11.31 years. The average body mass index (BMI) is 39.8 ± 3.2. All patients underwent questionnaires, general clinical and biochemical blood tests with lipid profile determination, anthropometry, bioimpedansometry,

and the main metabolic rate assessment using indirect calorimetry in dynamics (at the beginning of the study and after 3 months).

Results: Burdened heredity for obesity, arterial hypertension (AH), diabetes mellitus (DM) was revealed. AH was diagnosed in 76 patients (84.4%), type II diabetes in 17 (18.9%), dyslipidemia and hypercholesterolemia in 56 (62.2%). Statins were taken by 43 patients (47.8%) - group I patients, which is associated with low adherence to therapy, group II included patients who did not initially take statins or stopped taking them at least 6 months before inclusion in the study.

Against the background of diet therapy and physiotherapy exercises, BMI (R0.99; p < 0.05), fat mass (R0.95; p < 0.05) significantly decreased, lipid profile normalization was noted: total cholesterol (R0.66; p < 0.05), LDL (R0.69; p < 0.05), HDL (R0.95; p < 0.05), TG (R0.57; p < 0.05), AST decreased (R0.64; p < 0.05) and ALT (R0.76; p < 0.05) in both groups of patients, regardless of lipid-lowering therapy. A decrease in fat mass correlated with TG levels (R0.51; p < 0.05), an increase in skeletal muscle mass (R0.60; p < 0.05), lean mass (R0.72; p < 0.05), and active cell mass (R0.59; p < 0.05). The lipid profile in the I group of patients was significantly better before and at the end of the study. Long-term effects have not been investigated due to the short duration of the study.

Conclusion: In patients with OA, a high frequency of concomitant diseases of the cardiovascular system, lipid metabolism disorders was found. Non-drug therapy has a positive effect on the lipid profile and the level of transaminases. The decrease in body weight due to loss of fat mass reliably correlates with the level of TG. Timely use of statins contributes to the normalization of the lipid profile, reduces the risk of cardiovascular disease in patients with OA. It is necessary to study lipid profile disorders in patients with OA with recommendations for lifestyle modification (diet, physical activity), and if necessary, prescribe lipid-correcting therapy.

REFERENCES:

- [1] E. Simakova, B. Zavodovsky, L. Sivordova [et al]. Prognostic significance of lipid disorders markers determination in pathogenesis of osteoarthritis. *Vestnik Rossijskoj voenno-meditsinskoj akademii*. 2013. No. 2 (42). P.29-32.
- [2] Zavodovsky B.V., Sivordova L.E. Prognostic significance value of definition of leptin level determination in osteoarthritis. *Siberian Medical Journal (Irkutsk)*. 2012; 115(8):069-072.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.1421

AB0876-HPR NEUROFEEDBACK AND TEMPERATURE BIOFEEDBACK TRAINING IMPROVE MICROCIRCULATION IN PATIENTS WITH SYSTEMIC SCLEROSIS

R. Grekhoff¹. ¹Zborovskiy Research Institute for Clinical and Experimental Rheumatology, Rehabilitation Department, Volgograd, Russian Federation

Background: Microcirculatory disorders including Raynaud's phenomenon are one of the most important clinical symptoms of systemic sclerosis (SS).

Objectives: We found it appropriate to evaluate the clinical efficacy of biofeedback (BFB) in the complex therapy of SS patients based on analysis of nailfold capillaroscopy.

Methods: The study included 70 SS patients. 94% of patients we examined were women and 6% were men. The average age of the patients = 38±3,3 years, duration of illness = 14±2,6 years. Raynaud's phenomenon (RP) was observed in all the patients and its severe form was seen in 80% of the patients. The effectiveness of BFB was analyzed by studying the dynamics of the measures from the nailfold capillaroscopy and comparing the data obtained from patients of the main and control groups.

Results: Dynamics of capillaroscopic signs of therapy efficiency in main and control groups are summarized in the table:

Analyzed signs	Main group (n=40)		Control group (n=30)	
	before the therapy	after the therapy	before the therapy	after the therapy
Skin score, M±SD	22,56±10,24	14,99±9,44*	21,04±12,01	20,01±9,88
Dilation of the capillaries, %	34 (85)	16 (40)*	24 (80)	17 (56,6)
Avascular fields, %	26 (65)	24 (60)	13 (43,3)	17 (56,6)
Morphological capillaries' changes, %	36 (90)	22 (55)*	22 (73,3)	10 (33,3)*
Hemorrhage, %	25 (62,5)	10 (25)*	12 (40)	7 (23,3)

*- p < 0,05

It was found that patients participated in BFB training, showed significant positive dynamics in the following signs of capillaroscopic picture: dilatation of the capillaries ($\chi^2 = 9,643$; p = 0,026), morphological changes of the capillaries ($\chi^2 = 4,90$; p = 0,027), and hemorrhage ($\chi^2 = 4,514$; p = 0,034).