

[5] de Vlam K, Mielants H, Cuvelier C, de Keyser F, Veys EM, de Vos M. Spondyloarthritis is underestimated in inflammatory bowel disease: prevalence and HLA association. *J Rheumatol* Dec 2000;27(12):2860–2865.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.2228

AB1020 MULTIFREQUENCY BIOIMPEDANCE COMBINED WITH ACOUSTIC MYOGRAPHY – A NON-INVASIVE PAIN-FREE ASSESSMENT OF MUSCLE USE

E.M. Bartels, J. Kvistgaard Olsen, H. Bliddal, L.E. Kristensen, B. Danneskiold-Samsøe. *The Parker Institute, Department of Rheumatology, Copenhagen University Hospital, Bispebjerg and Frederiksberg, Frederiksberg, Denmark*

Background: Musculoskeletal diseases may involve muscle function, which often deteriorates due to a combination of pain and lack of exercise. Possible correction of this by training, or at least achievement of optimal efficiency of involved muscles with therapy, taking age and affecting disease into account, is an area which needs easily applicable and non-invasive pain-free assessment methods capable of monitoring daily living tasks outside a strict laboratory setting. Multi-frequency bioimpedance (mfBIA), assessing muscle health prior to exercise, in combination with Acoustic Myography (AMG), which allows real-time tests while e.g. walking or bicycling, may be such a method.

Objectives: To validate AMG combined with mfBIA for muscle-use assessment during a series of daily activity movements and exercise with the aim of introducing the method in the clinic.

Methods: 10 healthy subjects aged 25–68 years were assessed with mfBIA (Impedimed, Brisbane, Australia) prior to and following exercise of m. gastrocnemius during walking, stair climbing and descending, and cycling with increasing load. AMG was recorded with a CURO unit (MyoDynamik ApS, Frederiksberg, Denmark), and data handling was carried out with the software belonging to the devices. The mfBIA parameters considered were resistance (R), internal (Ri) and external (Re) resistance and centre frequency (fc), and the AMG parameters were Efficiency (E) – synchronization of motoric units, Temporal summation (T) – how frequently do you use a particular muscle fibre, and Spatial summation (S) – how many fibres in use at a given time, all given as Median; Min;Max.

Results: The mfBIA data, showing the health state of the muscle, showed changes in R, Ri, Re and fc as expected for a healthy muscle as an effect of exercise. The AMG data showed good reproducibility with repeated measurements. Walking on flat ground was less synchronized (E 2; 1,4) as were walking up (E 4; 1,6) and down stairs (E 3; 1,6), than cycling (E 8.5; 5,9). With increasing load during cycling, E decreased with the higher demand to E 5.5 range 1–7. The T-score was similar around 7 for all types of walking, while overall decreasing with increasing load during cycling from 6.5 to 5.5. The S-score was low during the three types of walk, indicating use of many fibres (S around 3), which is in line with the low E-score. For cycling the S-score decreased slightly with increasing load, from 8 to 7.5.

Conclusions: The combined method of mf-BIA and AMG shows good reproducibility. This method has the potential to assess training possibilities in patients with musculoskeletal diseases by testing directly on muscles during the movements of daily function. The method is applicable in real life settings outside the laboratory.

Acknowledgements: The Parker Institute is supported by the OAK Foundation

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.3369

AB1021 VIDEOCAPILLAROSCOPIC FINDINGS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS WITH OR WITHOUT JACCOUD'S ARTHROPATHY

C. Lins¹, E.P.D. Fonseca², D.L.D.S. Ribeiro², W.G.D. Santos², G. Rosa², V. Machicado², A.L. Pedreira², A.P.M.D. Souza², C. Baleeiro², L.G.D.S. Ferreira², I.S.D. Oliveira³, J.P.C.G.D. Silva³, A.M. Atta³, M.B. Santiago². ¹EBMSP - Escola Bahiana de Medicina e Saude Publica; ²EBMSP - Escola Bahiana de Medicina e Saude Publica; ³HUPES - Hospital Universitario Edgard Santos, Salvador, Bahia, Brazil

Background: Systemic lupus erythematosus (SLE) is an autoimmune disease that can present, as other collagen vascular disorders, changes in blood vessels. It can be evaluated by a non-invasive technique called periungual nailfold videocapillaroscopy (VCP). This technique is helpful in the diagnosis of systemic sclerosis (SSc), being part of the new classification criteria, and identifies individuals with Raynaud's phenomenon who are at a higher risk for developing SSc.

Objectives: This study aims to describe the videocapillaroscopic profile of a series of SLE patients and investigate if the VCP pattern is different among those with Jaccoud's arthropathy (JA) compared to the patients without this complication.

Methods: The patients were submitted to VCP, clinical evaluation, and laboratory tests. The capillaroscopic patterns were defined as minor, major and scleroderma (SD). The presence of capillaroscopic findings such as elongated capillaries, increased tortuosity, ectasia, prominent venous plexus, neoangiogenesis, hemorrhage and megacapillaries was also observed.

Results: In a population of 113 female patients with SLE (67 without JA and 46

with JA), at least one alteration was observed in VCP in 89.40% of patients, and the "nonspecific changes" were the most prevalent. Minor changes were seen in 39 (58.2%) and 26 (56.5%) patients, and major changes were seen in 21 (31.3%) and 11 (23.9%) patients without and with JA, respectively. The SD patterns were observed in 02 (3.0%) and 03 (6.5%) patients without and with JA, respectively (p>0.05).

Conclusions: The majority of patients of SLE present changes in the VCP exam, but such a tool does not allow distinguish those with or without JA.

References:

- [1] Lambova SN, Muller-Ladner U. Capillaroscopic pattern in systemic lupus erythematosus and undifferentiated connective tissue disease: what we still have to learn? *Rheumatology international*. 2013;33(3):689–95.
- [2] Ingegnoli F. Capillaroscopy abnormalities in relation to disease activity in juvenile systemic lupus erythematosus. *Microvascular research*. 2013;87:92–4. Santiago MB, Galvao V. Jaccoud arthropathy in systemic lupus erythematosus: analysis of clinical characteristics and review of the literature. *Medicine*. 2008;87(1):37–44.
- [3] Ingegnoli F, Zeni S, Meani L, Soldi A, Lurati A, Fantini F. Evaluation of nailfold videocapillaroscopic abnormalities in patients with systemic lupus erythematosus. *Journal of clinical rheumatology: practical reports on rheumatic & musculoskeletal diseases*. 2005;11(6):295–8.
- [4] Ragab O, Ashmawy A, Abdo A, Mokbel A. Nailfold capillaroscopy in systemic lupus erythematosus. *The Egyptian Rheumatologist*. 2011;33:61–7.

Acknowledgements: M. B.S. has received a scholar ship from Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq).

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.6627

AB1022 THE RECALL SURVEY: THE RELATIONSHIP BETWEEN ULTRASONIC SYNOVITIS AND BONE EROSION IN PATIENTS WITH RHEUMATOID ARTHRITIS

E. Filippucci¹, C. Bonali², P. Macchioni³, A. Iagnocco⁴, A. Delle Sedie⁵, S. Tropea⁶, O. Epis⁷, M. Canzoni⁸. ¹Clinica Reumatologica, Università Politecnica delle Marche, Ancona; ²Rheumatology Unit, Ospedale San Paolo, Bari; ³Rheumatology Unit, Reggio Emilia Hospital, Reggio Emilia; ⁴Academic Rheumatology Unit, Università degli Studi di Torino, Torino; ⁵Rheumatology Unit, Università di Pisa, Pisa; ⁶ASP7, Busacca Hospital, Ragusa; ⁷Rheumatology Unit, Ospedale Niguarda Milano, Milano; ⁸Local Health Unit (ASL) Rome-1, Rome, Italy

Background: Ultrasound (US) has shown to be a sensitive imaging tool for the detection of subclinical signs of synovitis in patients (pts) with rheumatoid arthritis (RA); further studies are still required to delineate the impact of US findings in the management of RA pts in daily clinical practice.

Objectives: To investigate the relationship between US findings indicative of joint inflammation and US bone erosions at joint level in pts with RA.

Methods: In 2015 an educational event focused on the added value of US in RA pts was held in 22 rheumatology centers in Italy. In every center, the local rheumatologists provided RA pts to be examined by US. Pts signed an informed consent and a brief history of them was collected by the local rheumatologists (previous and current therapy, DAS28, HAQ score). Bilateral US examinations of wrists, metacarpophalangeal (MCP) and metatarsophalangeal (MTP) joints were performed by rheumatologists expert in US, to assess synovitis (joint effusion, synovial proliferation, and power Doppler (PD) signal), and bone erosions, using a Logiq E R7, General Electrics, with a 4.2–13 MHz linear probe. All US findings were scored using a 4 degree semiquantitative scoring system.

Results: In 465 RA pts, a total of 10,230 joints were scanned. Of these joints, 3,969 (39%) showed joint effusion and/or synovial proliferation and 1,784 (17%) were found positive for PD signal. The most frequently involved joints were the wrists followed by the second MCP joints and first MTP joints. In 749 joints US detected at least one bone erosion. The most frequently eroded joints were the wrists, the second and fifth MCP joints and the first and fifth MTP joints. A total of 226 RA pts showed at least one bone erosions and in 181 (80%) of these pts the eroded joints were found positive for PD signal.

Conclusions: A high prevalence of PD signal was found in the joints found eroded by US. This is the first study providing such an evidence using a portable US equipment.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.4286

AB1023 QUANTIFERON®-TB GOLD IN-TUBE ASSAY CAN BE USED FOR LATENT TUBERCULOSIS SCREENING BEFORE BIOLOGICAL DRUG TREATMENT IN A BCG VACCINATED COUNTRY: HUR-BIO SINGLE CENTER REAL LIFE RESULTS

E. Seyhoğlu¹, O.A. Uyaroğlu¹, A. Erden², L. Kılıç², B. Armağan², A. Sarı², M. Baykal², S. Ak², Ö. Karadağ², A. Akdoğan², S. Apraş Bilgen², S. Kiraz², I. Ertenli², U. Kalyoncu². ¹Department of Internal Medicine; ²Division of Rheumatology, Department of Internal Medicine, Hacettepe University School of Medicine, Ankara, Turkey

Background: Patients treated with biologic agents have increased risk of