ULTRASOUND IS ASSOCIATED WITH LATE PHASES PRECEDING THE CLINICAL ONSET OF RHEUMATOID ARTHRITIS IN INDIVIDUALS GENETICALLY AT RISK

L. Brulhart1, D. Alpizar-Rodriguez2, P. Zufferey3, S. Bas2, D. Gascon4, C. Lamacchia5, P. Roux-Lombard6, E. Ciubotariu7, M.J. Nissen8, C. Gabay4, A. Finch8,1, Rheumatology, HNE, la Chaux-de-Fonds; 2Rheumatology, HUG, Geneva; 3Rheumatology, CHUV, Lausanne; 4HUG, Geneva, Switzerland; 5Hospital du Sacré-Coeur, Montréal, Canada

Background: Identifying pre-clinical phases of rheumatoid arthritis (RA) is challenging. Musculoskeletal ultrasound (US) is more sensitive than clinical assessment for the detection of synovitis. US abnormalities have been associated with subsequent joint inflammation in patients with anti-citrullinated peptide antibodies (ACPAs) without clinical synovitis (SJ1).

Objectives: To identify US abnormalities associated with the recognized phases of RA development in individuals at increased risk for RA.

Methods: This is a nested cohort study within an ongoing prospective study of individuals genetically at risk of developing RA, namely first degree relatives of patients with RA (FDR). Individuals without clinical evidence of RA were enrolled, and then followed-up yearly. We have included in this analysis all individuals with available ACPA status (anti-CCP 2.0, 3.0, or 3.1) and US assessment. The US examination was conducted according to the validated SONAR score7 and performed by US trained rheumatologists blinded to clinical and biological data. According to previous publications,8 inflammatory activity on US (active US) was defined as a Bmode score ≥9 and at least one synovitis of grade 2 or 3, or a Doppler score ≥2. We used logistic regression to analyze univariable and multivariable associations between US findings and specific phases preceding RA development and other patient characteristics.

Results: A total of 269 FDRs were analyzed, of which 97 (36%) had an active US of RA as defined above. Individuals with an active US tended to be older (years median [IQR]: 51 [41–59] vs 47 [35–57]; OR: 1.0, 95% CI: 1.0–1.0, p<0.05), with no difference in sex, body mass index and tobacco smoking. In univariable analyses, there was a strong correlation between an active US and the presence of "unclassified arthritis" (≥ 1 SJ on physical examination) (OR 2.6, 95% CI:1.4–4.9). No association was demonstrated with genetic risk factors (presence of shared epitope), systemic autoimmunity (ACPAs positivity) or self reported symptoms in the absence of arthralgia or SJ (Table 1). In the multivariable analyses, the absence of arthralgia or SJ (Table 1). In the multivariable analyses, the absence of arthralgia or SJ (Table 1). In the multivariable analyses, the absence of arthralgia or SJ (Table 1).

Conclusions: In individuals at risk of RA, active US was strongly associated with the presence of "unclassified arthritis". There was no association between US findings and earlier identified phases of RA development. These data suggest that in individuals at increased risk for RA, without obvious disease, US may identify imminent RA. These findings support the usefulness of US in a screening strategy for imminent RA.

References:

Disclosure: None declared
DOI: 10.1136/annrheumdis-2016-eular.6084

SAT0073 GOOD THERAPEUTIC RESPONSE WITH BIOLOGICS BUT PATIENTS’ AND PHYSICIANS’ OPINION ARE DIFFERENT. DATA FROM THE AUSTRIAN BIOREGISTRY

M. Herold1,2, G. Eichbauer-Sturm3,4, R. Puchner3, B. Rintelen5, F.S. Singer6, B. Zettl5, Internal Medicine VI, Medical University Innsbruck, Innsbruck; 2BioReg Austria, Vienna; 3Rheumatologist in private practice, Linz; 4Rheumatologist in private practice, Wels; 5Lower Austrian State Hospital Stockerla; 2nd Department of Internal Medicine, Karl Landsteiner Department of Clinical Rheumatology, Stockerla, Austria

Background: The discordance between patients and physicians in estimation of patients’ global health is well known especially from RA patients. We tried to find out whether differences in global health estimation are the same in patients with different diseases using data of the Austrian biologic registry.

Objectives: The aim of this evaluation was to elucidate the amount of differences between PGA (Patient Global disease Activity) and EGA (Evaluator’s Global disease Activity) in patients with rheumatoid arthritis (RA), spondyloarthritis (SpA) and psoriatic arthritis (PsA) at baseline and at control visits every six months after inclusion in BioReg.

Methods: Data were extracted from the Austrian BioReg registry (http://www.bioreg.at) which was initiated in 2009 to document patients treated with one of the nine biologics (abatacept, adalimumab, anakinra, certolizumab, etanercept, golimumab, infliximab, rituximab, tocilizumab) approved in Austria. Patients with ongoing biologic therapy as well as biologic-naïve patients starting biologic therapy can be included (baseline, BL). Further documentation is recommended about every six months (V1, V2 up to V11). Meanwhile, 1663 patients (rheumatoid arthritis (RA) n=948, ankylosing spondylitis (SpA) n=400, psoriatic arthritis (PsA) n=267, other disease n=48) have been documented. Estimation of global health is done using a visual analogue scale (VAS with 100 mm, 0 = no disease) by patients (PGA) and by physicians (EGA) at every visit.

Results: VAS (median values of BL; V1; V2; V3; V4: V5) of patients with RA showed differences between PGA (30; 20; 22; 20; 20; 20) and EGA (15; 7; 10; 10; 10) as well as in SpA (PGA 39; 30; 28; 30; 30; 20 and EGA 20; 10; 10; 10; 10; 10) and in PsA (PGA 30; 10; 12; 20; 10; 20 and EGA 10; 5; 10; 10; 10). Median values of inflammation’s laboratory markers (ESR in mm/1st hour and CRP in mg/l) were always within the normal range (ESR and CRP in RA 5; 12; 14; 12; 14 and 2.0; 2.2; 2.0; 2.0; 2.0; in SpA; 7; 7; 8; 7; 15; 1; 5; 1; 1; 4; 2.1; 1 and in PsA 8; 8, 5; 9; 10; 10 and 0 and 2.0; 1.7; 1.0; 1.0; 1.0).

Conclusions: As described for RA we also saw in patients with RA but also in SpA and PsA, that physicians’ estimation of global health is always better than patients’ values at all visits. We suppose that physicians focus primarily on signs of active inflammation and less on general feeling. The normal values of ESR and CRP support this assumption.

References:

Acknowledgement: BIOREG is supported by an unlimited industrial grant.

Disclosure: Interest: None declared
DOI: 10.1136/annrheumdis-2016-eular.4967

SAT0074 NO NEED TO DETECT ANTI-DRUG ANTIBODIES IN PATIENTS TREATED WITH TNF INHIBITORS

M. Herold1, L. Bos2, T. Haueis2, W. Klotz2, C. Zangerl1, 1Department of Internal Medicine VI, Medical University Innsbruck, Innsbruck; 2Landeskrankenshaus Bludenz, Bludenz; 3Rheumatologist in private practice, Zams, Austria

Background: Formation of anti-drug antibodies (ADA) might be responsible for sub-therapeutic serum drug levels resulting in a lack of clinical response. The need to test ADA levels in patients treated with a TNF inhibitor is the subject of discussion (1, 2).

Objectives: ADA levels were measured in patients treated with ADL or ETN or IFX to check immunogenicity in patients receiving various TNF inhibitors and clarify whether ADA measurement reflects treatment outcome.

Methods: Frozen serum samples from patients with rheumatoid arthritis (RA), spondyloarthropathies (SpA) and psoriasis arthritis (PsA) and treated with adalimumab (ADL; n=41) or etanercept (ETN; n=42) or infliximab (IFX; n=42) were selected. All patients were receiving continuous care of one of the authors. Anti-ADL, anti-ETN or anti-IFX levels were tested with commercially available assays (GnITools Deutschland GmbH) according to the manufacturer’s instructions. Drug levels were also determined with assays from the same manufacturer.

Results: Among ADL-treated patients we found 8/41 (20%) to be positive for ADA. Among ADL group elevated ADA levels were found in 3/42 (7%) patients; in the IFX group 8/42 (19%) patients had positive ADA levels. High ADA concentrations did not always correlate with diminished therapeutic response. Among ADA positive patients 3/8 in the ADL group (1 of each disease), 3/3 in the ETN group (RA 2, SpA 1) and 5/8 in the IFX group (RA 1, PsA 3, SpA 2) continued the given therapy