

RMDs. A learning partnership should be created between undergraduate medical students/healthcare professionals and the patient experts.

Methods: CYPLAR approached the Swedish Rheumatism Association for collaboration in order to implement the Patient Expert Project in CYPLAR. Funding was received from the EULAR Knowledge Transfer Programme. The collaboration was planned to consist of two meetings, one in Sweden and one in Cyprus.

1. Sweden: Two patients, members of CYPLAR, with RMDs, together with a Rheumatologist from CYPRUS visited the Swedish Rheumatism Association in Stockholm to learn about the Patient Partner Project, and receive Patient Expert training.

2. Cyprus: Two Patient Partner Instructors from the Swedish Rheumatism Association went to Cyprus 6 months after to oversee the progress of the Patient Expert programme and to make an examination of the two Patient Partners educated in Stockholm.

Results: The training session in Stockholm took place on May 2016, for two patients. They received training following the Swedish Patient Expert programme. This training was conducted by two Patient Expert Instructors, one rheumatologist and one Patient Expert. A visit to the Karolinska University Hospital with a tour of the Rheumatology Clinic and a Patient Expert demonstration was also included. The visit ended with a detailed plan formed for the implementation of the Patient Expert programme in CYPLAR.

The visit of the Swedish delegation took place in October 2016. Eight patients participated in the training. The training was made through workshops by the delegates from both organizations together with a Professor of rheumatology and a communication lecturer at the St George's University of London in Nicosia's establishments. Medical students were also involved in discussing their experience in being educated by patients. The programme also involved practice of joint examinations. The workshop was evaluated by the participants on the final day. After the workshop was concluded delegates spent a day discussing the event together. The programme was evaluated, and a future plan of action decided upon.

Conclusions: The implementation of the patient expert programme was successful. 10 new Patient Experts are now available in CYPLAR. The next generation of health professionals will benefit and get a larger understanding of RMD's and in the end, the patients will benefit because the health care staff has a greater knowledge.

Disclosure of Interest: None declared

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OP0282-PARE #DOESNTSHOWDOESNTEXIST / #SYNSINTEFINNSINTE – A PHOTO CAMPAIGN BY UNGA REUMATIKER

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Background: "Rheumatism amongst young people, is that really a thing?" "Isn't rheumatism something that only old people have?" "You seem so happy and so active, surely you can't be in pain?" These are all questions that young people with rheumatism have to listen to, and answer every day.

Yes, it's possible to have rheumatism even as a young person, and to be in pain, even though we're not letting it show. We know adjustment is possible, and that we can live our life to the fullest and follow our dreams, despite rheumatism. But sometimes it demands some extra understanding from the people around us. That's what we wanted to recognize, and created a campaign together with AbbVie.

Objectives: It can be hard to understand and fully grasp something you can't see, something that is invisible. But as young people with rheumatism, we have to live and deal with our swollen joints, with the pain and the fatigue, and with the side effects of our medication. None of which should be questioned.

We recognized that this was an issue for most people with rheumatism, and especially young people. Therefore, we wanted to start a conversation about how it is to go through life with an invisible disability.

The main purpose with our campaign was to acknowledge the fact that you can't always tell whether or not a person has a diagnosis, or is in pain. We also wanted to show young people with rheumatism that they are not alone in their situation.

Methods: We searched for young people with rheumatism in different ages and with different diagnoses. Each person in the campaign is presented in two different photos. One standard full-portrait photo in front of a white background, just showing who they are. One person held a basketball to show off her love for the sport, another one was wearing her dancing shoes and so on. The other photo is instead set in a complete dark room, with the person posing in the same way but this time with their rheumatism-affected areas lit up. We used glow in the dark-body paint and a UV-light to create this effect.

Each pair of photos is put together with the person's story about their passion in life and what it's like to live and deal with an invisible disability.

The campaign was released on October 12th 2016, on World Arthritis Day, with an event at Astrid Lindgren's children's hospital in Stockholm. The photos were printed and presented on large boards together with the personal stories.

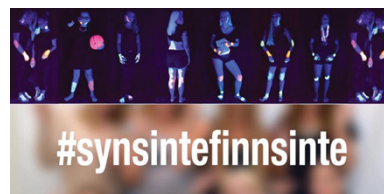
The first photo of the campaign, a group photo of everyone participating, was also posted on our social media on October 12th and then one pair of photos was posted every day during the following week. People were also told to share their own stories under the hashtag #synsintefinnsinte

Results: The campaign ended up being our organization's most successful campaign to this date. The spread was especially great on Facebook, with the

first post reaching nearly 50'000 people and the other posts reaching between 3'500 and 25'000 people every day. The campaign had more likes and shares on both Facebook and Instagram than any of our other campaigns has had so far.

The opportunity to show the photos at Astrid Lindgren's children's hospital also brought health care into the campaign and attracted great attention on site.

The photos combined with the personal stories make a powerful statement. We managed to show young people with rheumatism that they are not alone in their situation, and we look forward to the conversation continuing on at #synsintefinnsinte



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Imaging and treatment response in rheumatology —

OP0283 ULTRASONOGRAPHIC EVALUATION IN RHEUMATOID ARTHRITIS USING THE GLOBAL OMERACT/EULAR ULTRASOUND SYNOVITIS SCORE (GLOESS)

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Background: Recently, a global OMERACT/EULAR ultrasound (US) synovitis score (GLOESS) combining grey-scale (GS) and power-Doppler (PD) scores has been proposed as a novel measurement tool to assess disease activity and response to therapy in patients with rheumatoid arthritis (RA)^{1,2}. However, the ability of GLOESS to differentiate patients with different states of disease activity vs. remission in standard clinical care is not known.

Objectives: To assess the ability of GLOESS to discriminate between different clinical states of activity vs. remission in RA patients, and to compare clinical, GLOESS and PD US remission criteria and scores in a cross-sectional study.

Methods: Eighty RA patients from 3 centres were recruited at consecutive clinical visits: 50% were in remission and 50% had active RA according to Simple Disease Activity Index (SDAI). SDAI, Clinical Disease Activity Index (CDAI), 28-joint Disease Activity Score (DAS 28CRP), Health Assessment Questionnaire (HAQ), ACR/EULAR remission criteria were assessed. An independent investigator unaware of clinical results performed all US joint examinations of 26 joints. GLOESS, PD, and GS US sum scores per patient were assessed using OMERACT definitions. PD US remission was defined as the PD sum score = 0. GLOESS remission was defined as GLOESS score ≤ 1 thereby also including possible GS grade 1.

Results: PD US remission was observed in 38 (48%) patients and GLOESS remission in 16 (20%) patients. SDAI (r=0.24; p=0.03) and CDAI (r=0.23; p=0.04) but not DAS28CRP (r=0.21; p>0.05) were weakly correlated with GLOESS scores in the whole joint set. SDAI (r=0.41; p<0.001), CDAI (r=0.40; p<0.001), and DAS28CRP (r=0.40; p<0.001) were moderately correlated with PD activity in the whole joint set. A minority of patients were classified both in GLOESS remission and in clinical remission according to SDAI (n=10), to CDAI (n=10), to DAS28CRP (n=10) and to ACR/EULAR 2011 (n=7). Less than one third of patients were classified both in PD US remission and in clinical remission according to SDAI (n=22), to CDAI (n=26), to DAS28CRP (n=27) and to ACR/EULAR 2011 (n=21). The proportion of patients in clinical remission was significantly different according to the definition considered: while 50% of the patients (n=40) were classified in remission according to SDAI, 58% (n=46) were classified in remission according to DAS28CRP, and 43% (n=34) according to CDAI and 43% (n=34) according to ACR/EULAR 2011 remission criteria.

Conclusions: We document major discrepancies between US and clinical findings and between clinical scores classifying patients in active disease vs. remission. Patients reaching GLOESS or PD US definitions of remission are partly different from those reaching clinical definitions of remission.

References:

- [1] Naredo E, et al. The OMERACT ultrasound task force—status and perspectives. *J Rheumatol.* 2011;38(9):2063–2067.
- [2] D'Agostino MA, et al. Exploring a new ultrasound score as a clinical predictive tool in patients with rheumatoid arthritis starting abatacept: results from the APPRAISE study. *RMD Open.* 2016 5;2(1):e000237. doi: 10.1136/rmdopen-2015-000237.

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OP0284 EVALUATION OF THE IMPACT OF BASELINE LEVELS OF MRI-DETECTED INFLAMMATION ON TREATMENT RESPONSE IN EARLY, SEROPOSITIVE, MTX-NAÏVE RA: DATA FROM THE AVERT TRIAL

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Background: AVERT (Assessing Very Early Rheumatoid arthritis Treatment) was a Phase IIIb, randomized, 24-month (M) trial with a 12M, double-blind treatment period, and included contrast-enhanced MRI of the dominant hand and wrist. MRI can provide direct evidence of joint inflammation, enabling stratification of patient (pt) data according to MRI inflammation level, e.g. low vs high.¹ This stratification is hypothesized to predict clinical treatment response.

Objectives: To evaluate the proportion of pts achieving remission at M12 by baseline (BL) MRI-detected inflammation status and treatment group.

Methods: In AVERT, pts with early RA received abatacept (ABA) + MTX, ABA monotherapy or MTX. MRI inflammation was scored by two central readers at BL and M12. In this *post hoc* analysis, pts were stratified into "low" and "high" BL MRI inflammation groups. Low: ≤ 3 for synovitis, ≤ 3 for osteitis and ≤ 9 when combined (osteitis double weighted);² high: > 3 , > 3 or > 9 , respectively. The proportion of pts achieving CDAI (≤ 2.8), DAS28 (CRP; < 2.6), SDAI (≤ 3.3) and Boolean (TJC ≤ 1 , SJC ≤ 1 , CRP ≤ 1 mg/dL and pt global assessment of disease activity ≤ 1 [0–10 cm scale]) remission at M12 was compared by BL MRI inflammation and treatment group.

Results: Of 351 pts randomized and treated, 337 (96.0%) had MRI data at BL (ABA + MTX, n=114; ABA monotherapy, n=112; MTX, n=111). Mean (SD) BL synovitis, osteitis and total scores, respectively, for pts with low MRI inflammation receiving ABA + MTX vs MTX alone were: 2.6 (2.0) vs 3.1 (2.4), 0.3 (0.6) vs 0.2 (0.5) and 3.1 (2.4) vs 3.5 (2.7); high MRI inflammation: 9.2 (3.6) vs 9.3 (3.6), 10.0 (9.7) vs 10.7 (9.8) and 29.3 (21.3) vs 30.7 (21.3). BL DAS28 (CRP), CDAI and SDAI scores, respectively, for pts with low MRI inflammation receiving ABA + MTX vs MTX alone were: 5.1 (1.1) vs 5.0 (1.3), 34.0 (14.7) vs 32.1 (15.0) and 39.9 (17.4) vs 43.5 (24.6); high MRI inflammation: 6.2 (1.2) vs 5.6 (1.4), 43.4 (16.2) vs 37.7 (18.1) and 76.9 (44.9) vs 61.1 (35.2). The proportion of pts with low BL MRI inflammation attaining remission at M12 was similar regardless of treatment. In pts with high MRI inflammation, remission rates were significantly greater in pts treated with ABA + MTX vs MTX alone (Table).

Table 1. Proportion of Patients in Remission at Month 12 by Treatment and Baseline MRI Inflammation Status*

Remission criteria	Low MRI inflammation		High MRI inflammation	
	ABA+MTX (n=63)	MTX (n=62)	ABA+MTX (n=51)	MTX (n=49)
DAS28 (CRP)	39 (61.9)	31 (50.0)	31 (60.8) [†]	20 (40.8)
CDAI	24 (38.1)	20 (32.3)	24 (47.1) [†]	10 (20.4)
SDAI	25 (39.7)	20 (32.3)	23 (45.1) [†]	8 (16.3)
Boolean	22 (34.9)	18 (29.0)	20 (39.2) [†]	8 (16.3)

Data are n (%); *low: ≤ 3 synovitis, ≤ 3 osteitis and ≤ 9 combined (osteitis double weighted); high: > 3 , > 3 or > 9 ; [†]p<0.05 vs MTX alone.

Conclusions: Pts with higher MRI inflammation may derive greater benefit from abatacept + MTX vs MTX alone. BL MRI inflammation is a predictor of subsequent clinical treatment response to abatacept in RA. MRI may have clinical utility in treatment decisions beyond information obtained from clinical assessments alone.

References:

[1] Gandjbakhch F, et al. J Rheumatol 2014;41:398–406.

[2] Ahmad HA, et al. Ann Rheum Dis 2016;75:624.

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OP0285 ATTENUATION OF FLUORINE-18-FLUORODEOXYGLUCOSE UPTAKE IN LARGE VESSEL GIANT CELL ARTERITIS AFTER SHORT-TERM HIGH-DOSE STEROID TREATMENT – A DIAGNOSTIC WINDOW OF OPPORTUNITY

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Background: Fluorine-18-fluorodeoxyglucose (FDG) PET/CT is increasingly used to diagnose large vessel GCA (LV-GCA) due to its excellent diagnostic accuracy[1]. However, PET/CT is not always readily available, which may compel the clinician to 1) either delay steroid treatment at the risk of GCA related complications, or 2) initiate treatment at the expense of diagnostic sensitivity of the FDG PET/CT study.

Objectives: To evaluate if FDG PET/CT can accurately diagnose LV-GCA after 3 or 10 days of high-dose steroid treatment.

Methods: Twenty-four treatment-naïve patients (16 women) with a mean age of 69 (range 57–84) years with FDG PET/CT (PET0) proven LV-GCA repeated FDG PET/CT after either 3 (PET3, n=10) or 10 days (PET10, n=14) of treatment with oral prednisolone 60 mg daily. Prior to treatment, clinical examination and laboratory tests were performed to confirm GCA and exclude differential diagnoses. A temporal artery biopsy (TAB) was performed in all patients.

Two experienced nuclear medicine physicians blinded to clinical data reviewed the FDG PET/CT images. LV-GCA was suspected if increased FDG uptake in the wall of the aorta and/or supra-aortic branches was observed. A semi-quantitative approach was applied (a.m. Meller) in which FDG uptake was graded on a 5-point scale (0; no uptake, 1; \leq blood pool, 2; $>$ blood pool, \leq liver, 3; \geq liver, 4; $\geq 2 \times$ liver). A score ≥ 3 was considered consistent with vasculitis[2]. Vascular composite scores (CS) was calculated summarizing grades from assessed vascular regions; *Aortic:* Aorta ascendens, aorta descendens and aortic arch; *aortic branches:* Vertebral, carotid and subclavian/axillary artery.

Results: Mean CRP and ESR were 72 (95% CI: 55; 94) mg/l and 81 (95% CI: 72; 90) mm/h, respectively. ACR criteria for GCA was fulfilled by 18/24 patients and 17/21 had a positive TAB. Mean number of prednisolone doses before the post-treatment FDG PET/CT were 3.1 (SD 0.3) (PET3) and 10.3 (SD 0.7) (PET10).

Vascular CS in aorta did not decrease at PET3 (9 (IQR 9–9) vs. 9 (IQR 6–9)) whereas a significant decrease was observed in aortic branches at PET3 (6.5 (IQR 6–8) vs 5.5 (IQR 5–7), p<0.01) and both vascular domains at PET10 (Aortic; 9 (IQR 9–9) vs. 5.5 (IQR 3–6), aortic branches; 7 (IQR 7–8) vs 5 (IQR 4–6)). Although, FDG uptake decreased in aortic branches after 3 days, LV-GCA could still be accurately diagnosed in 10/10 patients. By contrast, LV-GCA could only be diagnosed in 5/14 patients after 10 days (PET0 vs. PET10, p<0.01).

At day 10, VAS global was significantly higher in patients with positive PET10 compared to patients with negative PET10 (5.2 (95% CI 3.6; 7.0) vs. 2.7 (95% CI 1.2; 4.2), p<0.05). No clinically significant differences in baseline phenotypical presentation, CRP or PET CS were found between patients with positive and negative PET10, respectively.

Intrater reliability of visual FDG-uptake-grading was substantial (agreement 90%, Cohens weighted kappa 0.67).

Conclusions: In LV-GCA, high-dose steroid treatment for three or ten days differentially attenuates the regional uptake of FDG but diagnostic accuracy remains within the first three days.

References:

[1] Puppo et al. BioMed research international 2014.

[2] Stellingwerff MD et al. Medicine 2015.

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OP0286 THE UTILITY OF THE OMERACT ULTRASOUND TENOSYNOVITIS SCORING SYSTEM IN MULTICENTER CLINICAL TRIALS

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Background: Tenosynovitis is very common in patients with rheumatoid arthritis (RA) and is associated with lower physical function. Several studies have confirmed the limitations of clinical examination for detection of tenosynovitis in comparison with ultrasound (US) and a highly validated and reliable US scoring