— detect those patients with the highest risk of flare.⁷ US is a valuable part of future decision making in rheumatology.

REFERENCES:

- [1] Wakefield RJ, Green MJ, Marzo-Ortega H, Conaghan PG, Gibbon WW, McGonagle D, et al. Should oligoarthritis be reclassified? Ultrasound reveals a high prevalence of subclinical disease. *Ann Rheum Dis* 2004;63:382–5.
- [2] Salaffi F, Filippucci E, Carotti M, Naredo E, Meenagh G, Ciapetti A, et al. Inter-observer agreement of standard joint counts in early rheumatoid arthritis: A comparison with grey scale ultrasonography—a preliminary study. *Rheumatology (Oxford)* 2008;47:54–8.
- [3] Aletaha D, Neogi T, Silman AJ, Funovits J, Felson DT, Bingham CO 3rd, Birnbaum NS, Burmester GR, Bykerk VP, Cohen MD, Combe B, Costenbader KH, Dougados M, Emery P, Ferraccioli G, Hazes JM, Hobbs K, Hui-zinga TW, Kavanaugh A, Kay J, Kvien TK, Laing T, Mease P, Ménard HA, Moreland LW, Naden RL, Pincus T, Smolen JS, Stanislawski-Biernat E, Symmons D, Tak PP, Upchurch KS, Vencovsky J, Wolfe F, Hawker G. Rheumatoid arthritis classification criteria: An American College of Rheumatology/European League Against Rheumatism collaborative initiative. *Arthritis Rheum* 2010 Sep;62(9):2569–81.
- [4] Freeston JE, Wakefield RJ, Conaghan PG, Hensor EM, Stewart SP, Emery P. A diagnostic algorithm for persistence of very early inflammatory arthritis: The utility of power Doppler ultrasound when added to conventional assessment tools. *Ann Rheum Dis* 2010 Feb;69(2):417–9.
- [5] d'Agostino MA, Ayril X, Baron G, Ravaut P, Breban M, Dougados M. Impact of ultrasound imaging on local corticosteroid injections of symptomatic ankle, hind-, and mid-foot in chronic inflammatory diseases. *Arthritis Rheum* 2005 Apr 15;53(2):284–92.
- [6] Dale J, Purves D, McConnachie A, McInnes I, Porter D. Tightening up? Impact of musculoskeletal ultrasound disease activity assessment on early rheumatoid arthritis patients treated using a treat to target strategy. *Arthritis Care Res (Hoboken)* 2014 Jan;66(1):19–26.
- [7] Saleem B, Brown AK, Quinn M, Karim Z, Hensor EM, Conaghan P, Peterfy C, Wakefield RJ, Emery P. Can flare be predicted in DMARD treated RA patients in remission, and is it important? A cohort study. *Ann Rheum Dis* 2012 Aug;71(8):1316–21.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.7761

SP0117 ULTRASOUND SCANNING OF RA PATIENTS IN REMISSION

A. Iagnocco. Dept. Scienze Cliniche e Biologiche, Università degli Studi di Torino, Turin, Italy

The optimisation of the current therapeutic strategies for RA, with the establishment of early intensive treatment and with the availability of new drugs, has led to a dramatic change in the management of RA, and remission is the target of modern treatment in patients with RA.^{1,2}

Remission is ideally characterised by the absence of clinically detectable disease activity, the absence of radiographic progression and the improvement of physical function.³ However, in clinical practice it is frequently difficult to use a comprehensive definition of this condition and apply objective systems for assessing it. Then, subclinical disease activity may be present, even in patients who are in clinical remission, leading to joint damage progression⁴ and disease flare.⁵

EULAR recommendations for the use of imaging in RA patients include ultrasound (US) as an assessment tool for inflammatory activity and remission, as it is able to detect joint inflammation and predict subsequent joint damage.⁶ Recent studies have shown that US provides diagnostic and prognostic data in terms of risk of flare, disability and damage progression in RA.⁸ Furthermore, in addition to joints, US allows the assessment also of periarticular structures, such as tendons, that have been demonstrated to be the site of inflammatory changes also in patients in clinical remission.⁷

Recently, 427 RA patients in clinical remission have been evaluated in a multicentre study which included the US assessment of wrist and hand tenosynovitis and synovitis by grey scale (GS) and power Doppler (PD).² Results of this study showed a high prevalence of tenosynovitis (52.5%–95% CI 0.48, 0.57 for GS and 22.7%–95% CI 0.19, 0.27 for PD) and synovitis (71.6%–95% CI 0.67, 0.76 for GS and 42%–95% CI 0.37, 0.47 for PD). Among clinical correlates, PD tenosynovitis associated with lower remission duration and morning stiffness while PD synovitis did not. Only PD tenosynovitis showed a significant association with the flare

questionnaire [OR 1.95 (95% CI 1.17, 3.26)]. No cross-sectional associations were found with the HAQ. The presence of radiographic erosions associated with GS and PD synovitis but not with tenosynovitis. This study demonstrated that US-detected tenosynovitis is a frequent finding in RA in clinical remission. Compared with intra-articular synovitis, active tenosynovitis was more associated with RA patients reporting unstable remission. Based on those results, US demonstrated to be a useful imaging modality for assessing tenosynovitis which may help in sub-setting RA patients in clinical remission.²

More recently, a multicentre longitudinal study in 361 consecutive patients with RA in clinical remission demonstrated that the conjunct presence of PD positive tenosynovitis and synovitis predicts flare in patients with RA in clinical remission.⁷ US scanning of RA patients in remission has a crucial role in order to demonstrate active joint and tendon inflammation that are able to predict flare.

During this practical skills session at EULAR Congress 2018 the role of US in detecting subclinical inflammation at joint and tendon level will be discussed and practical demonstration on how to scan patients in remission will be performed.

REFERENCES:

- [1] Smolen JS, et al. Treating rheumatoid arthritis to target: Recommendations of an international task force. *Ann Rheum Dis* 2010.
- [2] Bellis E, et al. Ultrasound-detected tenosynovitis independently associates with patient-reported flare in patients with rheumatoid arthritis in clinical remission: Results from the observational study STARTER of the Italian Society for Rheumatology. *Rheumatology* 2016.
- [3] Felson D. Defining remission in rheumatoid arthritis. *Ann Rheum Dis* 2012.
- [4] Brown AK, et al. An explanation for the apparent dissociation between clinical remission and continued structural deterioration in rheumatoid arthritis. *Arthritis Rheum* 2008.
- [5] Sakellariou G, et al. In patients with early rheumatoid arthritis, the new ACR/EULAR definition of remission identifies patients with persistent absence of functional disability and suppression of ultrasonographic synovitis. *Ann Rheum Dis* 2013.
- [6] Colebatch AN, et al. EULAR recommendations for the use of imaging of the joints in the clinical management of rheumatoid arthritis. *Ann Rheum Dis* 2013.
- [7] Filippou G, et al. The predictive role of Ultrasound detected tenosynovitis and joint synovitis for flare in patients with Rheumatoid Arthritis in stable remission. *Results of an Italian multicentre study of the Italian Society for Rheumatology Group for Ultrasound: the STARTER study* Submitted.
- [8] Scirè CA, et al. Ultrasonographic evaluation of joint involvement in early rheumatoid arthritis in clinical remission: power Doppler signal predicts short-term relapse. *Rheumatology* 2009.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.7639

FRIDAY, 15 JUNE 2018

WIN and HOT session

SP0118 RECENT ADVANCES IN THE TREATMENT OF RHEUMATOID ARTHRITIS

M.H. Buch^{1,2}. ¹NIHR Leeds Biomedical Research Centre, Leeds Teaching Hospitals NHS Trust; ²Leeds Institute of Rheumatic and Musculoskeletal Medicine, University of Leeds, Leeds, UK

Modern management of rheumatoid arthritis (RA) is underpinned by the principle of establishing a clear treatment goal through the efficient strategic use of DMARDs in order to minimise adverse outcomes. With evolving ambitions and new targeted therapies, ongoing advances in the management of RA continue to be made: this HOT session will summarise our progress in the understanding and management across the RA disease continuum; including the state of at risk of RA status to early and later RA disease. In particular, the session will focus on studies that inform on (i) the ability to potentially abrogate progression from autoimmunity to development of RA disease (ii) currently identified strategies that offer the optimal opportunity for remission induction in ERA (iii) ability to drug taper and (iv) use of recently introduced synthetic and biologic targeted therapies. Finally, with co-morbidity outcomes including cardiovascular disease, another key focus in the contemporary management of RA, developments in improving this area of health concern will also be presented.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.7800

FRIDAY, 15 JUNE 2018

Advances in biologic therapy of small vessel vasculitis

SP0119 THE EVOLVING ROLE OF MEPOLIZUMAB IN EGPA

F. Moosig. *Rheumazentrum Schleswig-Holstein Mitte, Neumünster, Germany*

There is overwhelming evidence that eosinophiles play a key role in the pathogenesis of EGPA. IL-5 is the central cytokine for eosinophil maturation, eosinophil release from the bone marrow and eosinophil survival. Mepolizumab is an antibody neutralising IL-5, which proved efficient in the hypereosinophilic syndrome and eosinophilic asthma, amongst other conditions. Targeting this cytokine in EGPA therefore seemed plausible. Two small uncontrolled trials demonstrated the safety of mepolizumab in EGPA and indicated the potential for induction of remission, maintenance and steroid sparing. A randomised controlled trial (MIRRA) confirmed those findings and showed higher rates of accrued remission for mepolizumab when given as ad-on medication to conventional immunosuppressants and/or glucocorticoids. Steroid sparing properties were also confirmed. MIRRA and previous trials in different indications issued no major safety concerns. Based on this trial drug approval for EGPA might be feasible.

To date the major problems in the treatment of EGPA are 1) refractory disease 2) a high frequency of relapses and 3) the need for high glucocorticoid doses in many patients.

Mepolizumab could be used for induction of remission in addition to glucocorticoids. However, its not yet clear, which subgroup of patients might profit most. Especially patients with severe disease have not been investigated. For patients with refractors non-severe disease mepolizumab is a potential option. Mepolizumab also was efficient in preventing relapses and therefore may also be used for maintenance of remission, especially in patients suffering from prevalent relapses. Finally, patients with high need for glucocorticoids could profit from mepolizumab, particularly in case of steroid-sensitive comorbidities or steroid-induced complications.

Disclosure of Interest: F. Moosig Consultant for: Chugai, GSK
DOI: 10.1136/annrheumdis-2018-eular.7727

SP0120 CURRENT CONTROVERSIES IN THE USE OF RITUXIMAB FOR INDUCTION AND MAINTENANCE OF AAV DISEASE

B. Terrier, on behalf of French Vasculitis Study Group. *Internal Medicine, Cochin Hospital, Paris, France*

Rituximab has now taken one of the first places in induction remission treatment of ANCA-associated vasculitides (AAVs) and is challenging cyclophosphamide. Rituximab is an anti-CD20 IgG1 mouse-human chimeric antibody that selectively depletes mature and memory B-cells.

Use of rituximab for induction

In AAVs, rituximab non-inferiority to cyclophosphamide as induction agent was clearly established. In the RAVE trial, which compared oral cyclophosphamide to rituximab as induction regimen, the remission rate at 6 months was 64% in the rituximab group and 53% in the cyclophosphamide group. Consequently, rituximab has revolutionised AAVs' standard-of-care and is now recommended as first-line therapy for many patients with granulomatosis with polyangiitis (GPA) and microscopic polyangiitis (MPA).

The RAVE trial prospectively compared two arms: induction with glucocorticoids combined with oral cyclophosphamide for 3–6 months followed by 12–15 months of azathioprine versus glucocorticoids and rituximab (375 mg/m²/week for 4 consecutive weeks) followed by placebo. At 12 and 18 months respectively, 48% and 39% of the rituximab–placebo recipients had sustained complete remission vs. 39% and 33% of the cyclophosphamide–azathioprine group. Those outcomes demonstrated that, after rituximab induction, azathioprine maintenance therapy is not useful. Nonetheless, both groups still had very high relapse rates, meaning that an effective maintenance regimen had not yet been found.

In contrast, these findings in induction phase could not be applied to AAVs forms excluded from the RAVE study, i.e. EGPA, vasculitis associated with anti-glomerular basement membrane antibodies (Goodpasture's syndrome), patients with alveolar haemorrhage requiring mechanical ventilation or those with rapidly progressive renal failure with creatinine exceeding 350 micromol/L. Also, studies are lacking to demonstrate that rituximab should be recommended as first-line therapy for patients who do not require cyclophosphamide for remission induction or patients with predominant granulomatous manifestations (granulomatous ear, nose and throat (ENT) lesion(s), isolated tracheal or bronchial stenosis, orbital tumour or pachymeningitis) that are life-and/or function-threatening.

Use of rituximab for maintenance

The idea to maintain remission with low-dose rituximab every 6 months for 18 months seemed reasonable than no intervention, as shown by MAINRITSAN trial results. In that prospective RCT, rituximab maintenance consisted of semestrial 500 mg infusions for 18 months. The first rituximab infusion was given 3–4 weeks after the end of cyclophosphamide induction therapy, followed by the second 2 weeks later and semestrial infusions thereafter. At the end of follow-up, 28 months post-randomization and 10 months after the last rituximab infusion, 5% of rituximab recipients vs. 28% of azathioprine-treated patients had relapsed. Prolonged follow-up of those patients showed that, at 60 months, although relapses had occurred in both groups, rituximab remained superior to azathioprine for sustaining remission. Although the results highlighted rituximab superiority in maintaining remission, it also became clear that relapses still occurred, frequently 18 to 24 months after the last rituximab infusion.

An answer to the optimal rituximab duration will be partially obtained with the MAINRITSAN 3 trial (ongoing), which is comparing, after randomization, four additional semestrial rituximab infusions (500 mg) to placebo, after patients had previously received rituximab during 18 months. It seems reasonable that, in the future, treatment duration will be adapted to prognostic factors and predictors of relapses.

Also, the impact of using higher dose of rituximab during maintenance will be addressed by the RITAZAREM trial (ongoing). This protocol evaluates rituximab infusions of 1 gram every 4 months for 20 months compared to oral azathioprine.

Use of rituximab for EGPA

Data on rituximab's clinical benefits for eosinophilic granulomatosis with polyangiitis (EGPA) patients is currently restricted to low-evidence-based open-label studies and case reports. The main findings of these studies indicate a potential benefit in severe refractory/relapsing EGPA, especially in patients with positive ANCA. Two ongoing prospective studies in France are comparing rituximab to conventional immunosuppressants as induction (REOVAS trial) and maintenance phase (MAINRITSEG trial). It will help to define more precisely the indication of rituximab in EGPA patients and eventually highlight which patients would benefit from the drugs.

Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2018-eular.7784

FRIDAY, 15 JUNE 2018

Tapering and flaring in PsA and SpA

SP0121 TAPERING IN PSA – TO DO OR NOT TO DO?

L. Coates. *Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, Oxford, UK*

This talk will discuss the current evidence regarding tapering or drug withdrawal in patients with psoriatic arthritis. With increasing numbers of patients achieving good outcomes such as remission, the issue of how long to continue treatment for has been raised. Given the cost of some of the newer therapies, this question also has significant cost effectiveness implications.

There is a limited amount of evidence but data from randomised and observational studies will be discussed as well as key research questions that remain outstanding.

Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2018-eular.7821

SP0122 TAPERING IN AXIAL SPONDYLOARTHRITIS – TO DO OR NOT TO DO?

D. Poddubnyy. *Charité Universitätsmedizin Berlin, Berlin, Germany*

According to the current version of the ASAS-EULAR management recommendations for axial spondyloarthritis, tapering of a biological disease modifying anti-rheumatic drug (bDMARD) can be considered once a remission is achieved. Tapering is opposed to a complete discontinuation that is associated with a very high disease flare risk (70%–100%) in axial spondyloarthritis. The question of tapering in axial spondyloarthritis has been addressed in a number of small clinical trials: in the majority of the them, tapering (either dose reduction or increase of the injection/infusion interval) could be done without a disease flare. It is, however, not clear, whether the tapering has any beneficial effect for a patient (i.e., in terms of safety) in addition to a cost-saving effect. Further, a number of questions related to tapering still requires an evidence-based answer: a) what is the optimal time-point of the initiation of tapering (e.g. 3, 6 or 12 months after remission achievement)? b) what is the optimal tapering regimen? c) are there reliable predictors of sustained remission/disease flare during tapering? The question of a bDMARD tapering after remission achievement will be at least partially answered in ongoing