organises training courses every two years at Genova and supplies continuous training through the EULAR imaging library.

Results: The following projects resulted in publications: As standardisation of techniques to evaluate the microcirculation is one of the aims of the study group, a first activity was a multi-centre study to assess the reliability of simple capillaroscopic definitions to evaluate morphologies of single capillaries.¹ Optimisation of reliability of initial definitions has been obtained at the 7th EULAR course on capillaroscopy.² Secondly, the evaluation of interrater reliability of microcirculatory flow evaluation by LASCA was piloted by 2 of the founding members and has been published.³ Thirdly, a cross-sectional, international SURvey on non-invasive techniques to assess which tools are being used to evaluate the microcirculation in patients with Raynaud's phenomenon has been performed in between 471 eligible physicians.⁴ A 4th publication resulted from a systematic review, analysing the role of capillaroscopy in systemic lupus erythematosus, based on standard interpretation of capillaroscopy according to the EULAR SG MC/RD.⁵

Conclusions: The relatively young EULAR SG MC/RD is thriving well, based on multi-centre joint forces to achieve standardisation of microcirculatory evaluation of rheumatic diseases as well as in achieving clinical as well as basic science research.⁶

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Laboratory course – from the clinic to the lab and back

SP0113 NEW TRENDS IN BIOMARKERS IN INFLAMMATORY JOINT DISEASE

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This lecture provides an overview on new developments in biomarker research and standardisation in inflammatory joint diseases. The presentation includes an introduction of established and new biomarkers in serum and synovial fluid as well as methods for their detection. Furthermore, an overview on different modifications of auto-antigens (including citrullinated and carbamylated isoforms) and their role in immune response and pathogenesis of disease will be given. The diagnostic performance of new and established biomarkers will be discussed including antibodies against modified antigens also illustrated by difficult to diagnose cases. In this context, special attention will be attributed to the predictive value of biomarkers for diagnosis of disease and treatment response.

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New assessments in clinical practice

SP0114 HOW TO PERFORM A QUICK AND RELIABLE PHYSICAL EXAMINATION IN RHEUMATOLOGY

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The GALs (Gait, Arms, Legs, Spine) screen is a quick, reasonably sensitive way to detect common musculoskeletal (MSK) abnormalities as part of a wider medical assessment.¹ However, for someone with MSK complaints a detailed assessment is required to determine the diagnosis and impact of the condition on that person. The history is the key starting point. This needs to be holistic and individualised as the enquiry proceeds, since the impact of any condition is person-specific and influenced by many factors (e.g. psychosocial, illness perceptions, sleep, comorbidity etc.). A thorough history usually suggests the single most likely cause for the patient's problem(s) and should then guide the examination – an efficient

targeted “rapier” approach where the practitioner selects appropriate skills from a range of competencies according to specific history elements. This contrasts with a longer hypothesis-free “screen” where an identical set of procedures is undertaken in each patient.

This presentation covers key principles and considerations of assessment and illustrates how the history guides the subsequent “rapier” examination.² Examples include:

(1) in the *history*: determination of pain localisation and features associated with radiated pain; pain and stiffness characteristics that differentiate mechanical usage-related pain, inflammatory pain, acute crystal synovitis, destructive bone pain and neurogenic pain; non-specific symptoms of inflammation.

(2) in the *examination*: usual order of inspection at rest, inspection during movement, then palpation at rest and during movement of symptomatic regions; contrasting clinical findings that quickly differentiate joint and peri-articular problems; initial selection of the movement(s) that is affected first and most severely by arthritis – the tight pack position(s); detection of “stress pain” (pain worse in tight-pack but reduced/absent in loose-pack positions – the most sensitive sign of inflammation); examination for effusion, soft-tissue and firm swelling; use of resisted active movements and stress tests for peri-articular lesions; a targeted screen for asymptomatic disease prompted by the main diagnosis.

EULAR learning resources available at http://www.eular.org/edu_training_dvd.cfm include: ¹ The “GALS” screen and ² Principles of the musculoskeletal history and examination.

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SP0115 VALUE OF INFLAMMATORY BIOMARKERS IN CLINICAL DECISION MAKING

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Inflammation is known to play a major role in rheumatologic disorders. Inflammatory biomarkers can help clinicians diagnose rheumatic diseases and assess disease activity more accurately. These markers have been incorporated into classification criteria of several diseases to enable early diagnosis and timely initiation of treatment. Quantification of inflammation has become essential to tailor the treatment strategy, especially in patients with rheumatoid arthritis, polymyalgia rheumatica and vasculitides. Inflammation can be measured from different perspectives – the measures that quantify biomarkers participating in inflammation, surrogate markers of inflammation, and the by-products of the inflammation process.

Erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) levels are among the most commonly used acute phase reactants in the detection and follow-up of rheumatologic disorders. These markers are not specific to trigger factors of inflammation, limiting their capacity to discriminate the cause for stimuli as well as the organs involved.

In the current presentation the advantages and limitations of new and established inflammatory biomarkers in clinical decision making will be discussed illustrated by case reports.

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SP0116 VALUE OF ULTRASOUND IN CLINICAL DECISION MAKING

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The use of ultrasound (US) has increased over the past 20 years for clinical decision making and for optimised patient care. The utility of US for correctly diagnosing the cause of musculoskeletal symptoms is known by many clinicians but little published data exist in this area. However, the value of US for diagnosing and handling treatment decisions especially in patients with rheumatoid arthritis (RA) has been well documented. US has been proven to be more sensitive than clinical joint evaluation.^{1 2} This has resulted in the acknowledgement of US as an addition to the clinical joint evaluation in suspected RA patients for assessing a more elaborate joint involvement helping the clinician to correctly classify the patients according to the new RA classification criteria.³ Likewise, in early undifferentiated inflammatory arthritis the use of US may assist in pinpointing those patients who will develop persistent inflammatory arthritis over time.⁴ US may also impact diagnosis and treatment decisions. This has been shown both in situations with regional pain such as the painful foot in chronic inflammatory diseases and the possible need for corticosteroid injections but also in global disease activity assessment in RA patients where US provides additional disease activity information leading to altered treatment decisions as compared to regularly DAS28 assessment.^{5 6} Also, in remission US may – by assessing subclinical inflammation

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

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SP0117 ULTRASOUND SCANNING OF RA PATIENTS IN REMISSION

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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.

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WIN and HOT session

SP0118 RECENT ADVANCES IN THE TREATMENT OF RHEUMATOID ARTHRITIS

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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.

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